

4 Chassis

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4.1 Chassis Overview

The S series fixed Ethernet switches integrate the access and transmission functions to provide reliable access/aggregation and high-quality transmission of services on enterprise networks. The switches are built on an integrated hardware platform, and their hardware system consists of the chassis, power module, fan module, extended cards, and Switch Control Unit (SCU).

The S series fixed Ethernet switches are available in a variety of models for you to choose based on your network requirements.

The S5700 series includes the S5700-LI, S5700S-LI, S5700-LI-BAT, S5710-LI, S5720-LI, S5720S-LI, S5700-SI, S5720-SI, S5730-SI, S5720S-SI, S5720I-SI, S5700-EI, S5710-EI, S5720-EI, S5730S-EI, S5700-HI, S5710-HI, S5720-HI, S5730-HI, S5731-L, S5731S-L, S5731-S, S5731S-S, S5731-H, S5731S-H, S5732-H, S5735-L, S5735-L-I, S5735S-L, S5735S-L-M, S5735-L1, S5735S-L1, S5735-S, S5735-S-I, S5735S-H, S5736-S, and S5735S-S subseries. The S5700-LI, S5700S-LI, S5700-LI-BAT, S5710-LI, S5720-LI, S5720S-LI, S5731-L, S5731S-L, S5735-L, S5735S-L, S5735-L1, S5735S-L1, and S5735S-L-M switches are Layer 2 switches, and all the other models in this series are Layer 3 switches.

4.2 Naming Conventions

Figure 4-1 S5700 switch naming conventions (applicable to S5731/S5732/S5735/S5736 models)

S5732S-H24UM4Y2CZ-MA-V2

A B C D E F G H I J K L M N O P

 **NOTE**

The device name in this figure is used as an example and does not represent a specific device.

The uplink and downlink ports mentioned in this document refer to the recommended usage of the ports, and do not indicate that the corresponding ports can be used only for the downlink or uplink.

Table 4-1 S5700 switch naming convention description (applicable to S5731/S5732/S5735/S5736 models)

Identifier	Description
A	Product type (1 character) The value is fixed at S, indicating that the device is an S series switch.
B	Role on the network (1 character) <ul style="list-style-type: none"> 6: aggregation switch 5: high-end access switch 3: mid-range access switch
C	Market positioning (1 character) 7: switch for enterprise networks
D	Product sub-series (2 characters) The left character indicates the generation, for example, S5720 and S5730. The right character distinguishes different products of the same generation.
E	Industry identifier (0 to 2 characters) <ul style="list-style-type: none"> By default, this field is left empty. S: channel distribution model
F	Level type (1 character) <ul style="list-style-type: none"> H: high-level S: standard L: lightweight
G	Number of downlink ports (1 or 2 characters)

Identifier	Description
H	Downlink port type (1 or 3 characters) <ul style="list-style-type: none"> • T: GE electrical port • P: GE electrical port, supporting PoE+ or PoE++ • LP: GE electrical port, supporting PoE+ and low PoE power • FT: FE electrical port and GE electrical port • ST: GE optical port and GE electrical port or combo port • U: GE electrical port, supporting PoE++ • N: 2.5GE electrical port • UN: 2.5GE electrical port, supporting PoE++ • UM: 10GE MultiGE electrical port, supporting PoE++ • UTM: 10GE MultiGE electrical port or GE electrical port, supporting PoE++ • XUM: 10GE MultiGE electrical port supporting PoE++ or 10GE optical port • X: 10GE optical port • S: GE optical port • Y: 25GE optical port • HB: GE or 10GE hybrid optical-electrical port • HS: The switch uses independent optical ports and PoE electrical ports to implement optical-electrical hybrid
I	Number of uplink ports of type 1 (1 character)
J	Uplink port of type 1 (1 or 2 characters) <ul style="list-style-type: none"> • S: GE optical port • ST: GE optical port and GE electrical port or combo port • UM: 10GE MultiGE electrical port, supporting PoE++ • X: 10GE optical port • C: 100GE optical port • Q: 40GE optical port • Y: 25GE optical port • H: GE hybrid optical-electrical port • HT: GE hybrid optical-electrical port and GE electrical port
K	Number of uplink ports of type 2 (1 character)

Identifier	Description
L	Uplink port of type 2 (1 or 2 characters) <ul style="list-style-type: none"> • S: GE optical port • ST: GE optical port and GE electrical port • UM: 10GE MultiGE electrical port, supporting PoE++ • X: 10GE optical port • C: 100GE optical port • Q: 40GE optical port • Y: 25GE optical port • H: GE hybrid optical-electrical port • HT: GE hybrid optical-electrical port and GE electrical port
M	Function type (0 or 1 character) <ul style="list-style-type: none"> • Empty: The switch does not support pluggable cards. • C or Z: The switch supports pluggable cards. • W: The switch can be installed in a duct. • E: The switch supports independent stack ports. • N: The switch can be installed on a DIN rail. • R: The switch can be installed in a rack. <p>NOTE The S5731-H48T4XC-B contains the C flag, but does not support pluggable cards.</p>
N	Special function type (0 or 1 character) <ul style="list-style-type: none"> • Empty: By default, this field is left empty. • I: The switch supports a wide temperature range. • M: The switches are applicable to video surveillance scenarios. • B: The switch adopts the back-to-front airflow design. • Q: The switch uses natural heat dissipation. • RU: The device is a remote unit. • T: The switch supports HTM function.

Identifier	Description
O	<p>Power module type (0 to 2 characters)</p> <ul style="list-style-type: none"> • Empty: The switch uses pluggable power modules. • A or A1: <ul style="list-style-type: none"> - The switch is sold with an AC power module. - The switch uses a built-in AC power module. - The switch uses a power adapter. • D or D1: <ul style="list-style-type: none"> - The switch is sold with a DC power module. - The switch uses a built-in DC power module. <p>NOTE This convention is not applicable to the S5735-S4T2X-IA150G1, S5735-S8P2X-IA200H1, and S5735-S8P2X-IA200G1.</p>
P	<p>Version type (0 to 2 characters)</p> <ul style="list-style-type: none"> • Empty: By default, this field is left empty. • V2: differentiates the models that are of the same series but use different software platforms. For example, the S5732-H and S5732-H-V2 use different software platforms. • TV2: The TV2 models use the same software platform as the V2 models and support the HTM function.

Figure 4-2 S5700 switch naming conventions (applicable to S5700/S5710/S5720/S5730 models)

S5700S-52P-PWR-LI-24S-AC

A B C D E F G H I J K

NOTE

The device name in this figure is used as an example and does not represent a specific device.

The uplink and downlink ports mentioned in this document refer to the recommended usage of the ports, and do not indicate that the corresponding ports can be used only for the downlink or uplink.

Table 4-2 S5700 switch naming convention description (applicable to S5700/S5710/S5720/S5730 models)

Identifier	Description
A	Switch
B	<ul style="list-style-type: none"> ● 6: 10GE downlink ports ● 5: GE downlink ports ● 3: Layer 3 switch with 100M downlink ports ● 2: Layer 2 switch with 100M downlink ports
C	7: switch for enterprise networks
D	Product sub-series (such as 00 or 10)
E	<ul style="list-style-type: none"> ● S: channel distribution model ● SV2: enhanced channel distribution model ● I: model supporting a wide temperature range
F	Maximum number of ports NOTE On an S5710-EI switch (such as S5710-28C-EI), this field indicates the maximum number of fixed ports on the switch.
G	Uplink port type: <ul style="list-style-type: none"> ● C: The product supports pluggable cards and its uplink ports are provided by a pluggable card or are fixed 10GE ports. ● PC: The product supports pluggable cards and its uplink ports are provided by a pluggable card or are fixed GE ports. ● X: The product has fixed 10GE uplink ports. ● TP: The uplink ports of the product include combo ports consisting of electrical and optical ports. ● P: The uplink ports of the product are fixed GE optical ports. NOTE If the product name does not contain this field, the switch has no uplink port.
H	<ul style="list-style-type: none"> ● PWR: The product supports Power over Ethernet (PoE). ● PWH: The product supports PoE++. NOTE If the product name does not contain this field, the switch does not support PoE.
I	Level type: <ul style="list-style-type: none"> ● LI: lightweight edition ● SI: standard edition ● EI: enhanced edition ● HI: high-end edition, which supports high-performance operation, administration, and maintenance (OAM) and built-in real-time clock (RTC)

Identifier	Description
J	<p>Downlink port type:</p> <ul style="list-style-type: none"> ● 24S: 24 downlink SFP optical ports ● 48CS: 48 downlink compact SFP (CSFP) optical ports <p>NOTE If the product name does not contain this field, all downlink ports of the switch are electrical ports.</p>
K	<p>Power supply type:</p> <ul style="list-style-type: none"> ● AC or AC1: switch using AC power supply ● ACF: switch using AC power supply and supporting high-power PoE power modules ● ACL: switch using AC power supply and having a built-in low-power PoE power module ● DC or DC1: switch using DC power supply ● BAT: battery LAN switch <p>NOTE Some product models that support pluggable power modules are sold with AC or DC power modules (standard configuration), and their product names contain "-AC" or "-DC". However, the silkscreen or nameplate on the chassis does not contain "-AC" or "-DC". For example, the S5720-56C-HI supports pluggable AC and DC power modules. If its standard configuration includes AC power modules, its product name is S5720-56C-HI-AC, but the name on its silkscreen or nameplate is still S5720-56C-HI.</p>

4.3 Port Numbering Conventions

Physical ports are numbered in the following way:

A single switch uses slot ID/subcard ID/port sequence number to identify physical ports.

- Slot ID: indicates the slot where the switch is located. The value is 0.
- Subcard ID: indicates the ID of a subcard. The default value is 0 for models without subcards.
- Port sequence number: indicates the sequence number of a port on the switch.

A stacked switch uses stack ID/subcard ID/port sequence number to identify physical ports.

- Stack ID: indicates the ID of a stacked switch. The value ranges from 0 to 8.
- Subcard ID: indicates the ID of a subcard. The default value is 0 for models without subcards.
- Port sequence number: indicates the sequence number of a port on the switch.

Table 4-3 Port numbering conventions

Port Numbering Diagram	Description
	<p>There are two rows of service ports on the device. These ports are numbered from bottom to top and left to right, starting from 1.</p> <p>For example, the port on the top left is numbered 0/0/2.</p> <p>Ports of different speeds are numbered separately. For example, the first 100M port is numbered Ethernet 0/0/1, the first GE port is numbered GigabitEthernet 0/0/1, the first 10GE port is numbered XGigabitEthernet 0/0/1, and the first 40GE port is numbered 40GE 0/0/1. Ports with the same rate are numbered in ascending order.</p>

Some 40GE optical interfaces can be split into multiple interfaces. The converted interfaces are numbered using the following rules:

- 10GE interfaces converted from a 40GE interface are numbered based on the number of the last 10GE interface on the switch. For interfaces on the switch panel, if the last 10GE interface is numbered XGE 0/y/m and a 40GE interface to be split is numbered 40GE 0/y/n, the four 10GE interfaces converted from the 40GE interface are numbered XGE 0/y/(m + 4 * (n - 1) + z + 1). For example, if the last 10GE interface on a switch is numbered XGE 0/0/48, the four 10GE interfaces converted from 40GE 0/0/3 are numbered XGE 0/0/57, XGE 0/0/58, XGE 0/0/59, and XGE 0/0/60. For interfaces on a card, m has a fixed value of 0. For example, the four 10GE interfaces converted from 40GE 1/1/1 on a card are numbered XGE 1/1/1, XGE 1/1/2, XGE 1/1/3, and XGE 1/1/4.
 - y: indicates the subcard number.
 - m: indicates the sequence number of the last 10GE interface on the switch.
 - n: indicates the sequence number of the 40GE interface.
 - z: indicates the interface location. The value ranges from 0 to 3.
- 25GE interfaces converted from a 100GE interface are numbered based on the number of the last 25GE interface on the switch. Because only the 100GE interfaces on cards support interface split, if a 100GE interface to be split is numbered 100GE 0/y/n, the four 25GE interfaces converted from the 100GE interface are numbered 25GE 0/y/(4 * (n - 1) + z + 1). For example, the four 25GE interfaces converted from 100GE 0/1/1 on a card are numbered 25GE 0/1/1, 25GE 0/1/2, 25GE 0/1/3, and 25GE 0/1/4.

- y: indicates the subcard number.
- m: indicates the sequence number of the last 10GE interface on the switch.
- n: indicates the sequence number of the 40GE interface.
- z: indicates the interface location. The value ranges from 0 to 3.

 **NOTE**

Split interfaces are numbered in the same sequence as the wires of a cable are numbered. For example, in a 1-to-4 cable, the wire numbered 1 corresponds to the interface with the lowest interface number, and the wire numbered 4 corresponds to the interface with the highest interface number.

After the interface rate increases, the interface numbering rule is as follows:

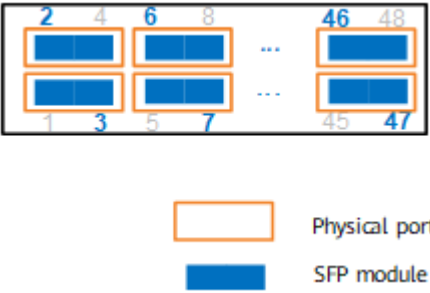
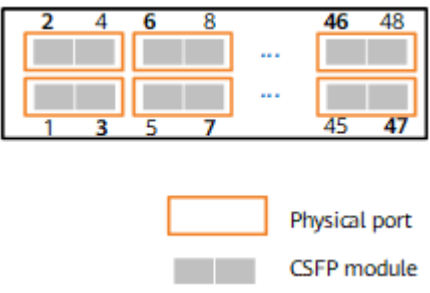
- On the S5736-S48S4X-A and S5736-S48S4X-D, the subcard ID of the 48 1000BASE-X Ethernet optical interfaces is 0, and the interface rate is increased to 10 Gbit/s after an RTU license for interface rate improvement is loaded. To prevent subcard ID conflicts, the subcard ID of the previous four 10GE SFP+ Ethernet optical interfaces is fixed at 1.
- On the S6730-H24X4Y4C, the subcard ID of the 24 10GE SFP+ Ethernet optical interfaces is 0. After an RTU license for interface rate improvement is loaded, the interface rate is increased to 25 Gbit/s, the subcard ID becomes 1, and the subcard ID of the previous four 1GE/10GE/25GE SFP28 Ethernet optical interfaces remains at 0.

 **NOTE**

For the S5731-H and S5731S-H optical-electrical hybrid models, the four 10GE optical-electrical hybrid ports and the four 10GE SFP+ Ethernet optical ports have the same sequence numbers and are distinguished by subcard ID. The subcard ID of the four 10GE optical-electrical hybrid ports is 1, the subcard ID of the four 10GE SFP+ Ethernet optical ports is 2, and the subcard ID of the rear card lost is 3.

Table 4-4 describes the CSFP port numbering conventions.

Table 4-4 CSFP port numbering conventions

Port Numbering Diagram	Description
 <p>Physical port</p> <p>SFP module</p>	<p>For example, an S5700-52X-LI-48CS-AC has 24 physical ports located in two rows of service ports, 12 ports in each row. When all the ports have SFP optical modules installed, the ports are numbered as follows:</p> <ul style="list-style-type: none"> • The ports in the lower row are numbered starting with 3 from left to right, with an increment of 4. • The ports in the upper row are numbered starting with 2 from left to right, with an increment of 4. <p>For example, with SFP optical modules installed, the first port at the lower left of the panel is numbered 0/0/3; the second port at the lower left is numbered 0/0/7; the first port at the upper left is numbered 0/0/2; the second port at the upper left is numbered 0/0/6.</p>
 <p>Physical port</p> <p>CSFP module</p>	<p>When all the ports have CSFP optical modules installed, each port functions as two ports. The switch has a total of 48 ports in this case. These ports are numbered starting with 1 from bottom to top, and left to right.</p> <p>For example, if a CSFP optical module is installed on the first port at the lower left, the port is split into two ports numbered 0/0/1 and 0/0/3. If a CSFP optical module is installed on the first port at the upper left, the port is split into two ports numbered 0/0/2 and 0/0/4.</p>

Port Numbering Diagram	Description
	<p>If some ports on the switch use CSFP optical modules and some use SFP optical modules, the ports are numbered following the respective numbering conventions.</p> <p>Assume that the first port at the lower left uses a CSFP optical module and the second port at the upper left uses an SFP optical module. In this case, the two ports derived from the first CSFP port are numbered 0/0/1 and 0/0/3, and the second SFP port is numbered 0/0/6.</p>

4.4 S5700-LI

4.4.1 S5700-10P-LI-AC

Version Mapping

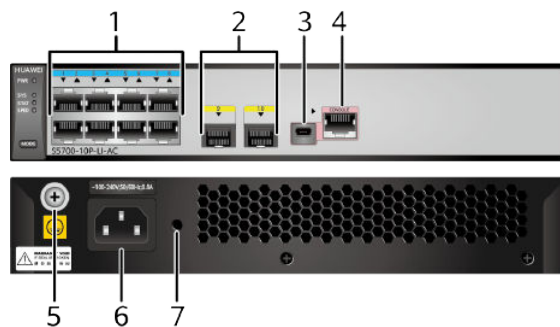
Table 4-5 lists the mapping between the S5700-10P-LI-AC chassis and software versions.

Table 4-5 Version mapping

Series	Model	Software Version
S5700-LI	S5700-10P-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-3 S5700-10P-LI-AC appearance



1	Eight 10/100/1000BASE-T ports	2	Two 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	AC socket NOTE It is used with an AC power cable .
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-6** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-6 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-7](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-7 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-8](#).

Table 4-8 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

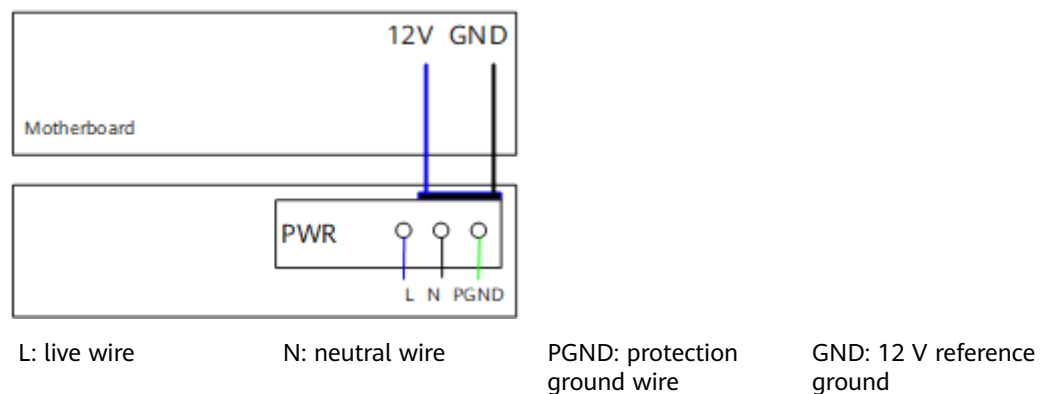
The S5700-10P-LI-AC has similar indicators to those of the S5700-28X-LI-AC, except that the S5700-10P-LI-AC does not have RPS and STCK indicators and two GE optical ports do not support the Speed mode. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-10P-LI-AC has a built-in power module and does not support pluggable power modules.

Figure 4-4 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-4 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-10P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-9 lists technical specifications of the S5700-10P-LI-AC.

Table 4-9 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB

Item	Description
Mean time between failures (MTBF)	44.41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.8 in. x 7.1 in.)
Weight (with packaging)	1.3 kg (2.87 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	11.5 W
Typical power consumption (30% of traffic load)	9.71 W
<ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354036

4.4.2 S5700-10P-PWR-LI-AC

Version Mapping

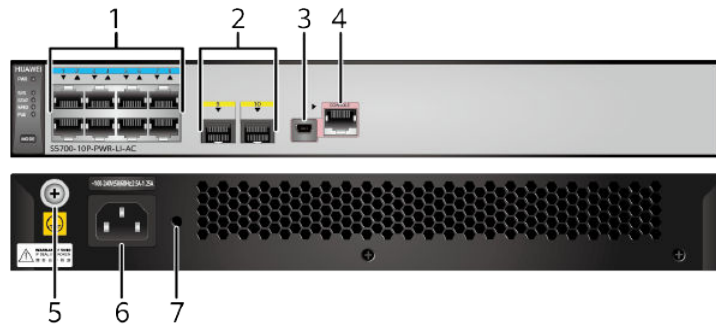
Table 4-10 lists the mapping between the S5700-10P-PWR-LI-AC chassis and software versions.

Table 4-10 Version mapping

Series	Model	Software Version
S5700-LI	S5700-10P-PWR-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-5 S5700-10P-PWR-LI-AC appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	Two 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> GE optical module (80 km and 100 km modules not supported) GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	AC socket NOTE It is used with an AC power cable .
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-11](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-11 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-12](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-12 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-13](#).

Table 4-13 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

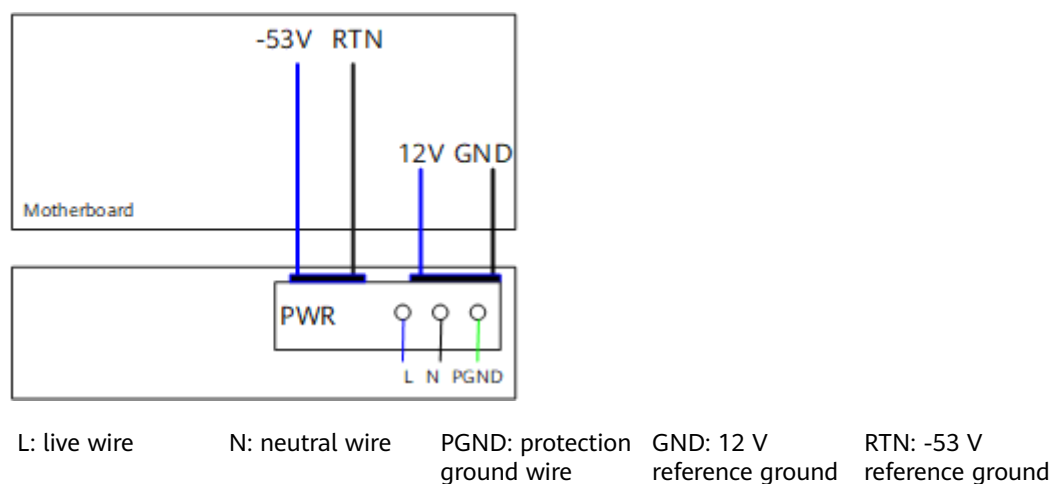
The S5700-10P-PWR-LI-AC has similar indicators to those of the S5700-28X-PWR-LI-AC, except that the S5700-10P-PWR-LI-AC does not have RPS and STCK indicators and two GE optical ports do not support the Speed mode. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-10P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

Figure 4-6 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-6 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5700-10P-PWR-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-14 lists technical specifications of the S5700-10P-PWR-LI-AC.

Table 4-14 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	36.89 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 320.0 mm x 220.0 mm (1.72 in. x 12.6 in. x 8.7 in.)
Weight (with packaging)	2.3 kg (5.07 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full PoE)	142.4 W (system power consumption: 18.4 W, PoE: 124 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	13.51 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354037

4.4.3 S5700-28P-LI-AC

Version Mapping

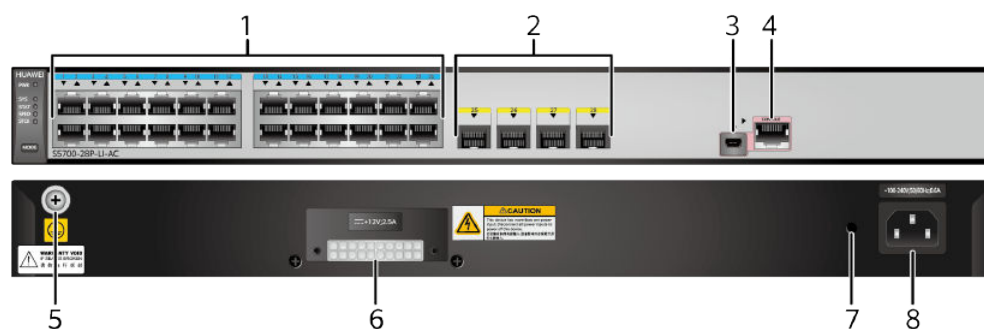
Table 4-15 lists the mapping between the S5700-28P-LI-AC chassis and software versions.

Table 4-15 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28P-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-7 S5700-28P-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T Ethernet Electrical Port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-16** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-16 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X Ethernet Optical Port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-17](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-17 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-18](#).

Table 4-18 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

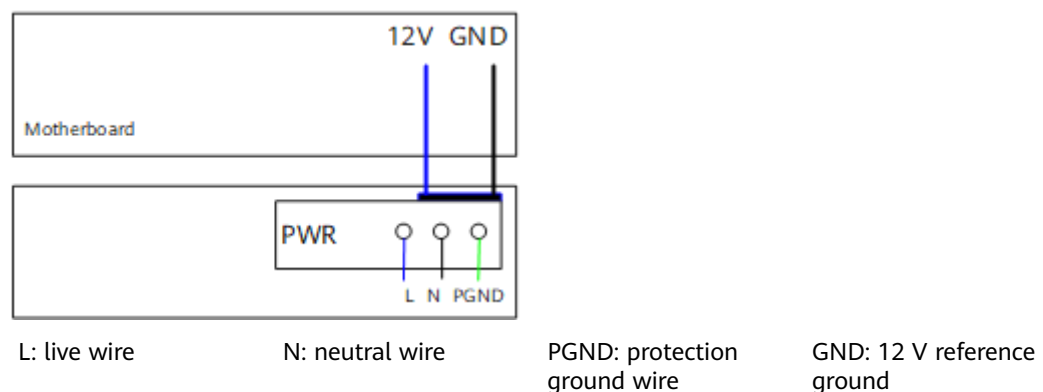
The S5700-28P-LI-AC has similar indicators to those on the S5700-28X-LI-AC, except that the S5700-28P-LI-AC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 4-8](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-8 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-28P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-19](#) lists specifications of the S5700-28P-LI-AC.

Table 4-19 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	49.69 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	2.8 kg (6.17 lb)
Stack ports	<ul style="list-style-type: none"> V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports V200R011 and later versions: four uplink 1000BASE-X optical ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	24 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	19.3 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353173

4.4.4 S5700-28P-LI-DC

Version Mapping

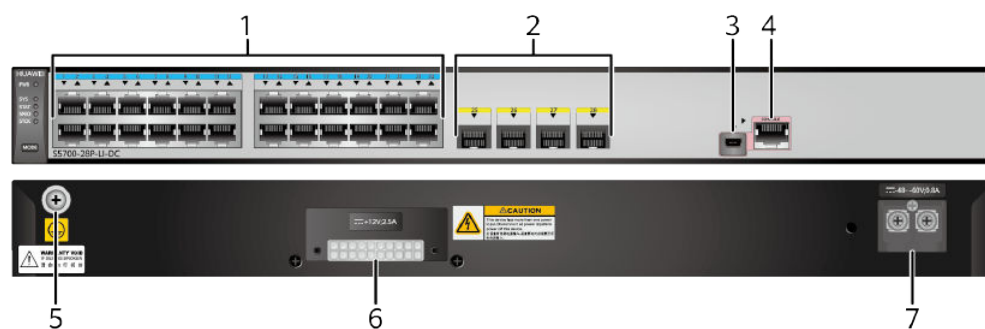
[Table 4-20](#) lists the mapping between the S5700-28P-LI-DC chassis and software versions.

Table 4-20 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28P-LI-DC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-9 S5700-28P-LI-DC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	DC power terminal NOTE It is used together with a DC Power Cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-21** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-21 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-22](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-22 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-23](#).

Table 4-23 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

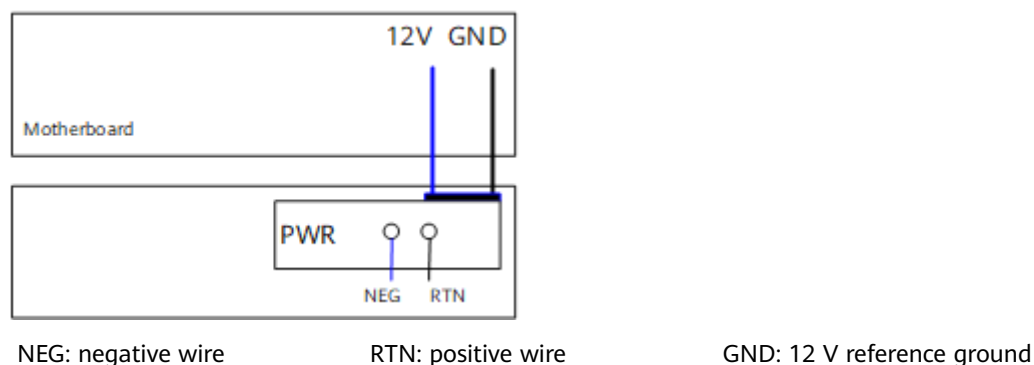
The S5700-28P-LI-DC has similar indicators to those on the S5700-28X-LI-AC, except that the S5700-28P-LI-DC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28P-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 4-10 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-10 Power supply by a single DC power module



Heat Dissipation

The S5700-28P-LI-DC has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-24 lists technical specifications of the S5700-28P-LI-DC.

Table 4-24 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> • V200R001: 64 MB • V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	49.69 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	2.8 kg (6.18 lb)
Stack ports	<ul style="list-style-type: none"> • V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports • V200R011 and later versions: four uplink 1000BASE-X optical ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput)	24 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	17.6 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 45°C (32°F to 113°F) when it uses SFP optical modules with 80 km or longer transmission distances.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-3000 m (0-9483 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353831

4.4.5 S5700-28P-PWR-LI-AC

Version Mapping

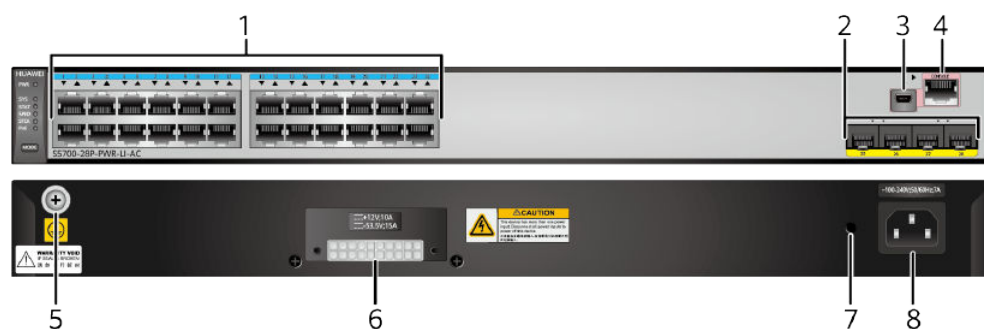
Table 4-25 lists the mapping between the S5700-28P-PWR-LI-AC chassis and software versions.

Table 4-25 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28P-PWR-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-11 S5700-28P-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)• Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions)• 1 m and 10 m SFP+ copper cables (only used for stack connection)• 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions)• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE <ul style="list-style-type: none">• It is used with an RPS cable which is not hot swappable.• A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-26](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-26 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-27](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-27 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-28](#).

Table 4-28 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

The S5700-28P-PWR-LI-AC has similar indicators to those on the S5700-28X-PWR-LI-AC, except that the S5700-28P-PWR-LI-AC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28P-PWR-LI-AC has a built-in power module and does not support pluggable power modules.

It can provide PoE power supply and connect to an RPS1800 power supply for power redundancy. [Table 4-29](#) lists its power supply configurations.

Table 4-29 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12

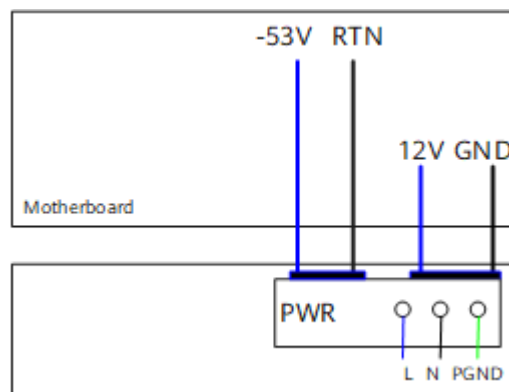
Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
RPS used	<ul style="list-style-type: none"> V200R001: 369.6 W Versions later than V200R001: 800 W 	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When an S5700-28P-PWR-LI-AC switch of V200R001 connects to an RPS1800, the RPS1800 only provides PoE power backup and does not increase the switch's PoE power.

Figure 4-12 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

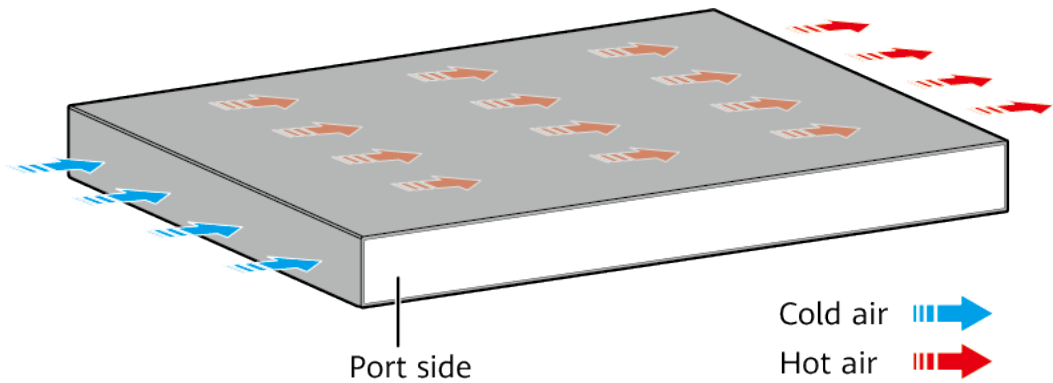
Figure 4-12 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-28P-PWR-LI-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-30 lists technical specifications of the S5700-28P-PWR-LI-AC.

Table 4-30 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	44.24 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	4 kg (8.82 lb)
Stack ports	<ul style="list-style-type: none"> V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports V200R011 and later versions: four uplink 1000BASE-X optical ports

Item	Description
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	436.5 W (system power consumption: 66.5 W, PoE: 370 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.2 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353175

4.4.6 S5700-52P-LI-AC

Version Mapping

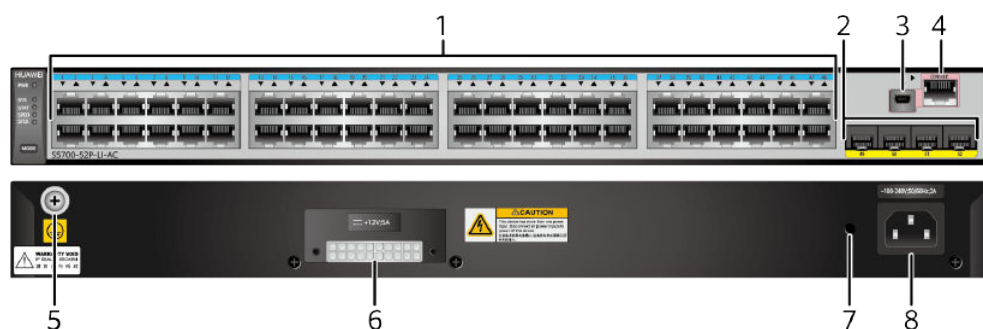
Table 4-31 lists the mapping between the S5700-52P-LI-AC chassis and software versions.

Table 4-31 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52P-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-13 S5700-52P-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-32](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-32 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-33](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-33 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-34](#).

Table 4-34 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

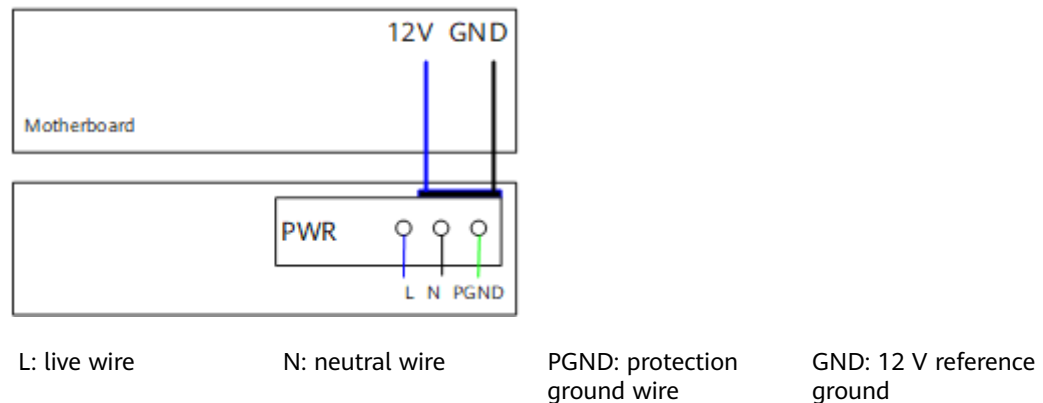
The S5700-52P-LI-AC has similar indicators to those on the S5700-28X-LI-AC, except that the S5700-52P-LI-AC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

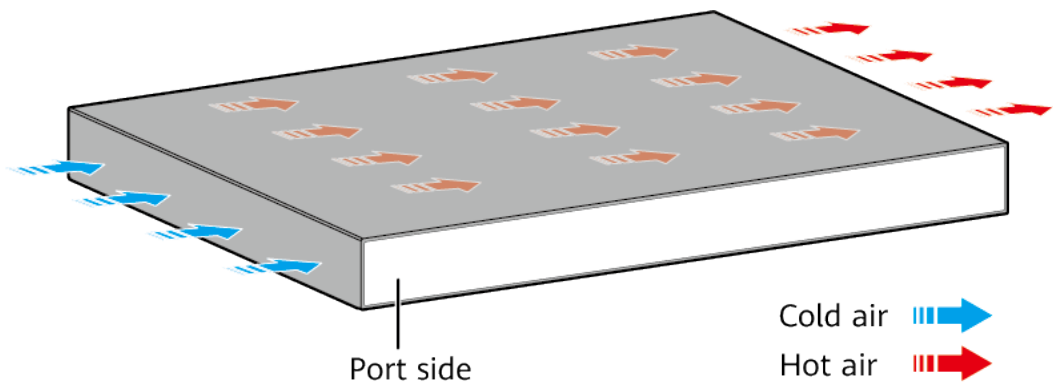
Figure 4-14 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-14 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-52P-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-35 lists technical specifications of the S5700-52P-LI-AC.

Table 4-35 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	39.26 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack ports	<ul style="list-style-type: none"> V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports V200R011 and later versions: four uplink 1000BASE-X optical ports

Item	Description
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	48.4 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	32.5 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification

Item	Description
Part number	02353174

4.4.7 S5700-52P-LI-DC

Version Mapping

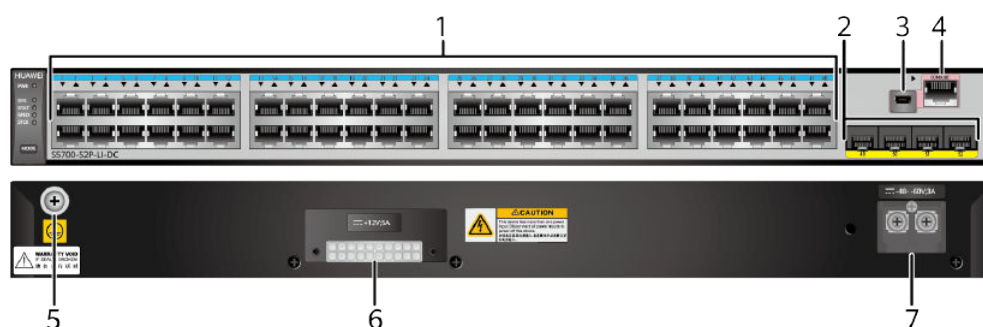
Table 4-36 lists the mapping between the S5700-52P-LI-DC chassis and software versions.

Table 4-36 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52P-LI-DC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-15 S5700-52P-LI-DC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>
7	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-37** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-37 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-38](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-38 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-39](#).

Table 4-39 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

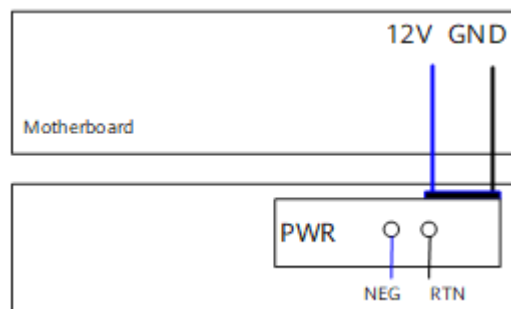
The S5700-52P-LI-DC has similar indicators to those on the S5700-28X-LI-AC, except that the S5700-52P-LI-DC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52P-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 4-16 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-16 Power supply by a single DC power module



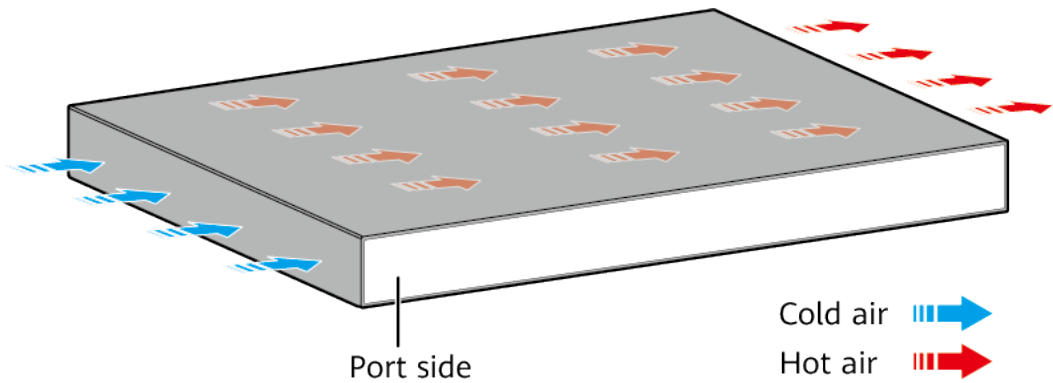
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5700-52P-LI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-40 lists technical specifications of the S5700-52P-LI-DC.

Table 4-40 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	39.26 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack port	<ul style="list-style-type: none"> V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports V200R011 and later versions: four uplink 1000BASE-X optical ports

Item	Description
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	48.3 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	30.3 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification

Item	Description
Part number	02353830

4.4.8 S5700-52P-PWR-LI-AC

Version Mapping

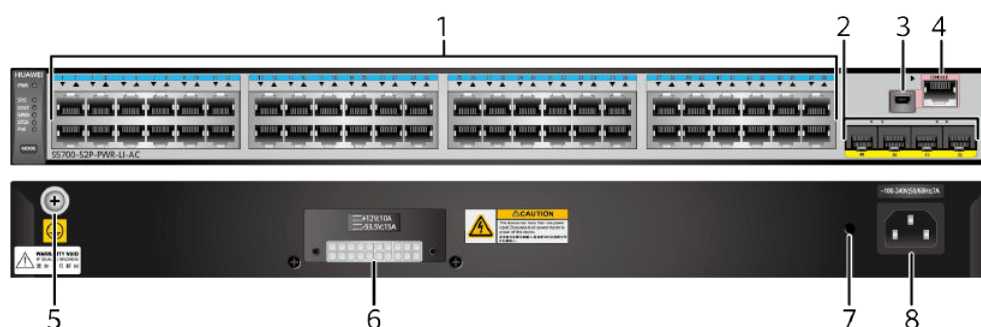
Table 4-41 lists the mapping between the S5700-52P-PWR-LI-AC chassis and software versions.

Table 4-41 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52P-PWR-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-17 S5700-52P-PWR-LI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>RPS socket</p> <p>NOTE</p> <ul style="list-style-type: none"> • It is used with an RPS cable which is not hot swappable. • A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-42](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-42 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-43](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-43 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-44](#).

Table 4-44 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

The S5700-52P-PWR-LI-AC has similar indicators to those on the S5700-28X-PWR-LI-AC, except that the S5700-52P-PWR-LI-AC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52P-PWR-LI-AC has a built-in power module and does not support pluggable power modules.

It can provide PoE power supply and connect to an RPS1800 power supply for power redundancy. [Table 4-45](#) lists its power supply configurations.

Table 4-45 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12

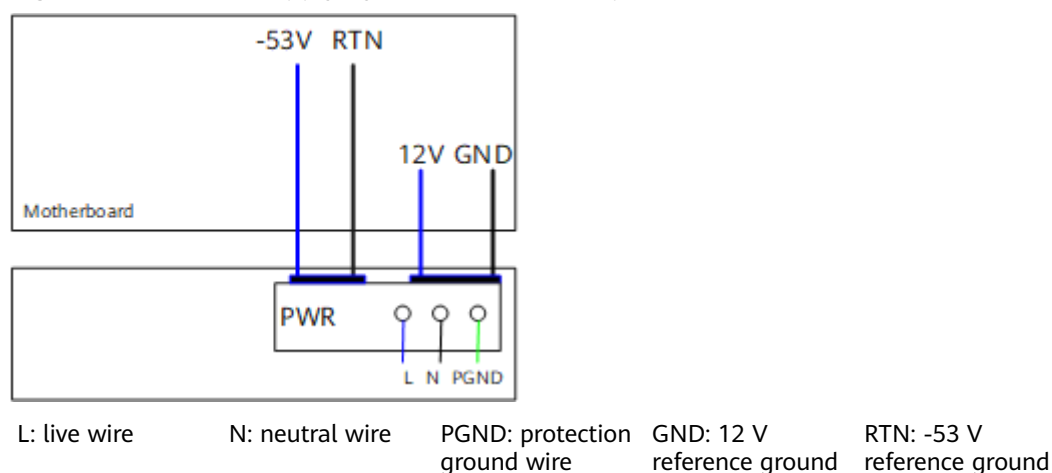
Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
RPS used	<ul style="list-style-type: none"> V200R001: 369.6 W Versions later than V200R001: 800 W 	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26

NOTE

When an S5700-52P-PWR-LI-AC switch of V200R001 connects to an RPS1800, the RPS1800 only provides PoE power backup and does not increase the switch's PoE power.

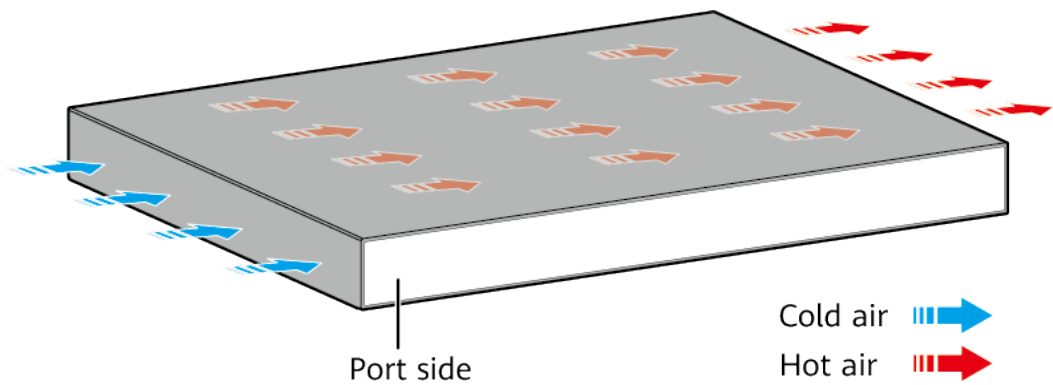
Figure 4-18 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-18 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5700-52P-PWR-LI-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-46 lists technical specifications of the S5700-52P-PWR-LI-AC.

Table 4-46 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	35.70 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	6 kg (13.23 lb)
Stack port	<ul style="list-style-type: none"> V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports V200R011 and later versions: four uplink 1000BASE-X optical ports

Item	Description
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	464.5 W (system power consumption: 94.5 W, PoE: 370 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	41.2 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353176

4.4.9 S5700-28TP-LI-AC

Version Mapping

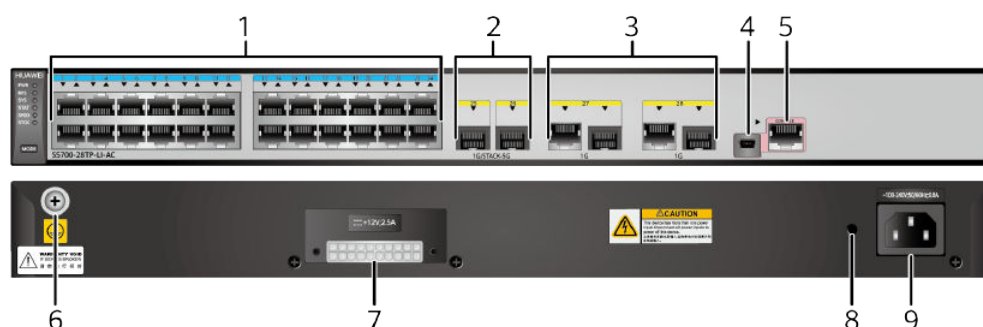
[Table 4-47](#) lists the mapping between the S5700-28TP-LI-AC chassis and software versions.

Table 4-47 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28TP-LI-AC	V200R003C10 to V200R012C00 versions NOTE This model does not match V200R005C00, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-19 S5700-28TP-LI-AC appearance



1	<p>Twenty-four 10/100/1000BASE-T ports</p>	2	<p>Two 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	<p>Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module 	4	<p>One mini USB port</p>
5	<p>One console port</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket NOTE It is used with an AC power cable .	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-48](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-48 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-49](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-49 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one

internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-50](#).

Table 4-50 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

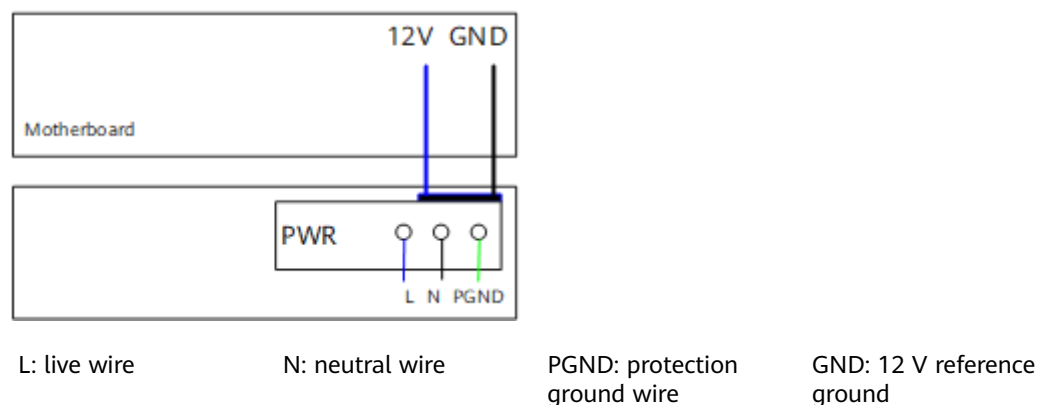
The S5700-28TP-LI-AC has the same types of indicators as the S5700-28X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28TP-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

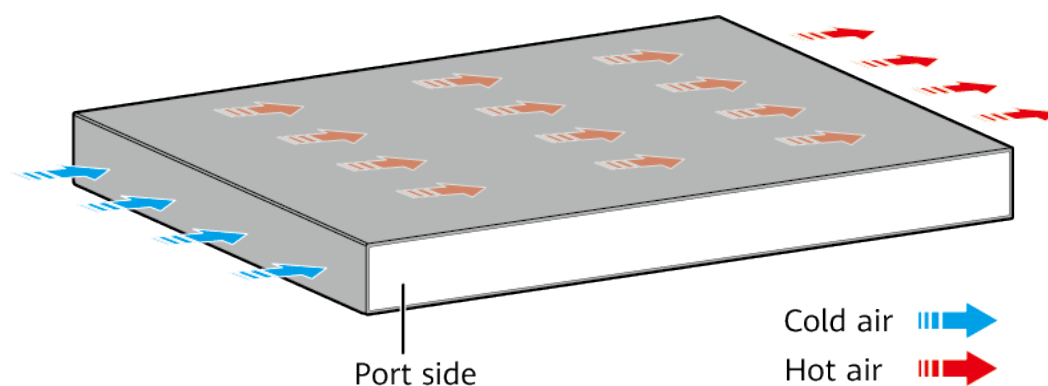
Figure 4-20 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-20 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-28TP-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-51 lists technical specifications of the S5700-28TP-LI-AC.

Table 4-51 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	65.66 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	4.1 kg (9.04 lb)
Stack ports	Two uplink 1000BASE-X optical ports (non-combo ports)
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	26.4 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	23.4 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 39.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010536

4.4.10 S5700-28TP-PWR-LI-AC

Version Mapping

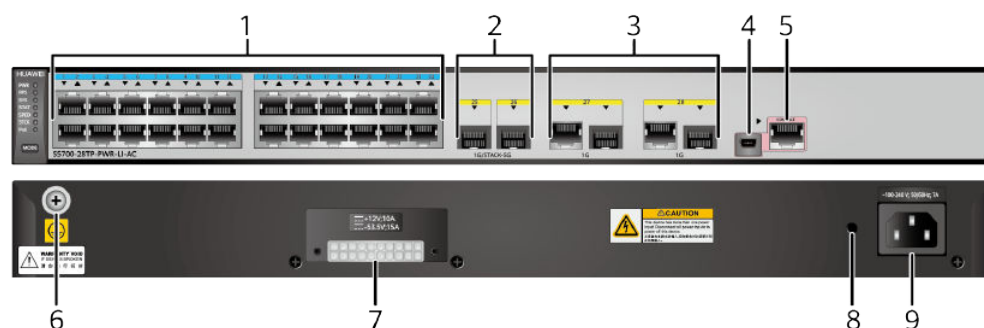
Table 4-52 lists the mapping between the S5700-28TP-PWR-LI-AC chassis and software versions.

Table 4-52 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28TP-PWR-LI-AC	V200R003C10 to V200R012C00 versions NOTE This model does not match V200R005C00, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-21 S5700-28TP-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Two 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module 	4	One mini USB port
5	One console port	6	Ground screw NOTE It is used with a ground cable .

7	<p>RPS socket</p> <p>NOTE</p> <ul style="list-style-type: none"> It is used with an RPS cable which is not hot swappable. A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power. 	8	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-53** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-53 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. **Table 4-54** describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-54 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-55](#).

Table 4-55 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

The S5700-28TP-PWR-LI-AC has the same types of indicators as the S5700-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

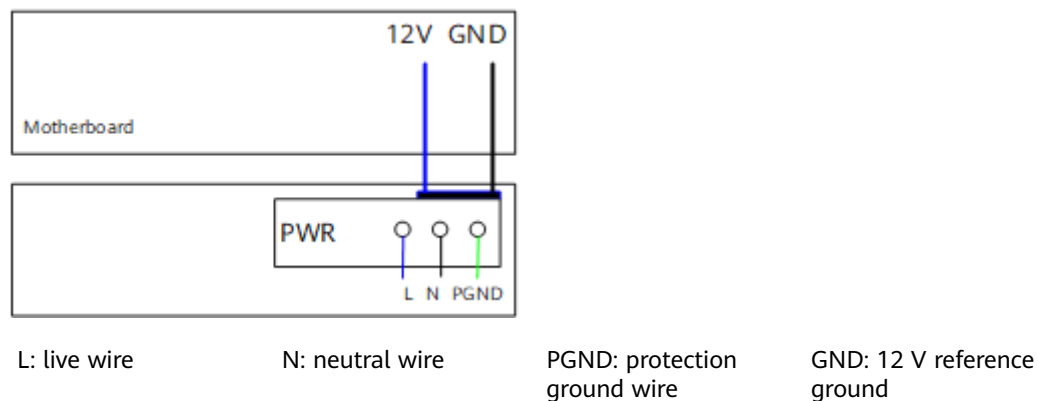
The S5700-28TP-PWR-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy. [Table 4-56](#) lists its power supply configurations.

Table 4-56 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 12
RPS used	800 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24

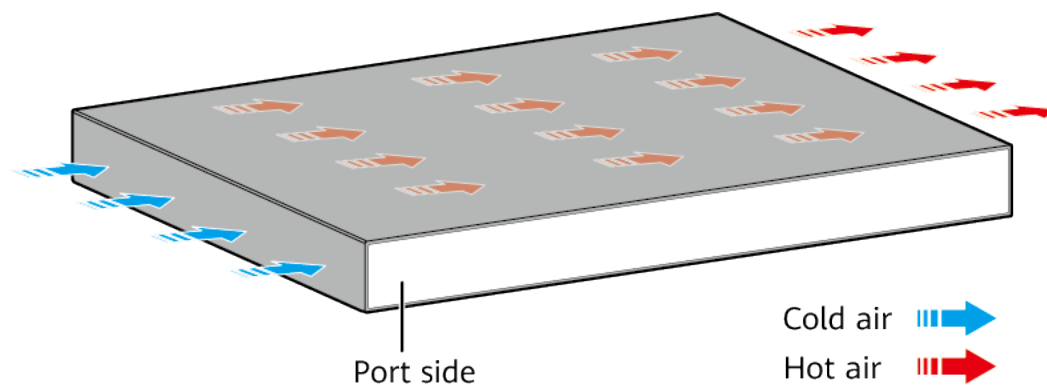
[Figure 4-22](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-22 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-28TP-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-57 lists technical specifications of the S5700-28TP-PWR-LI-AC.

Table 4-57 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	46.2 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	5.8 kg (12.79 lb)
Stack ports	Two uplink 1000BASE-X optical ports (non-combo ports)
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	469.7 W (system power consumption: 99.7 W, PoE: 370 W)
Typical power consumption (30% of traffic load)	32 W
	<ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010537

4.4.11 S5701-28TP-PWR-LI-AC

Version Mapping

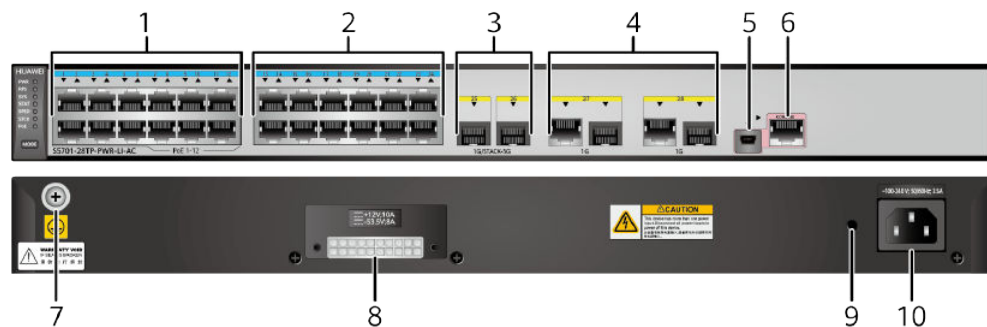
Table 4-58 lists the mapping between the S5701-28TP-PWR-LI-AC chassis and software versions.

Table 4-58 Version mapping

Series	Model	Software Version
S5700-LI	S5701-28TP-PWR-LI-AC	V200R003C10 to V200R012C00 versions NOTE This model does not match V200R005C00, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-23 S5701-28TP-PWR-LI-AC appearance



1	Twelve PoE+ 10/100/1000BASE-T ports	2	Twelve 10/100/1000BASE-T ports
3	Two 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
5	One mini USB port	6	One console port

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>RPS socket</p> <p>NOTE</p> <ul style="list-style-type: none"> It is used with an RPS cable which is not hot swappable. A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.
9	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	10	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-59](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-59 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-60](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-60 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-61](#).

Table 4-61 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

The S5701-28TP-PWR-LI-AC has the same types of indicators as the S5700-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

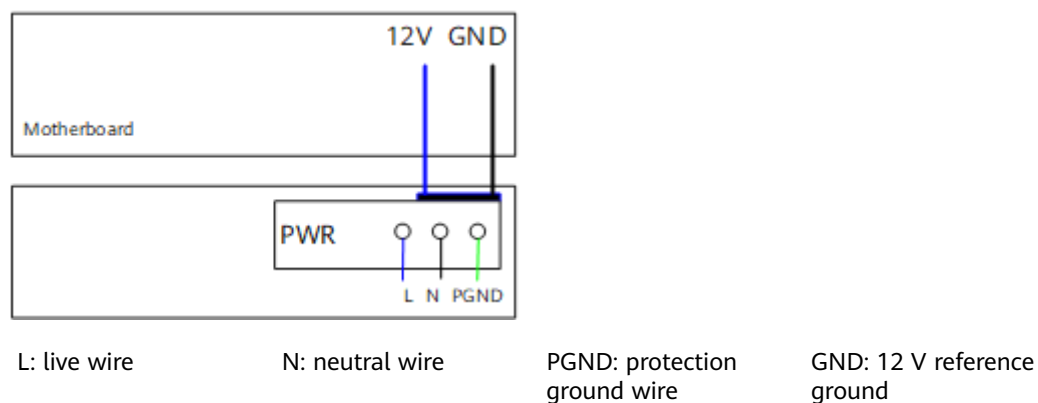
The S5701-28TP-PWR-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy. [Table 4-62](#) lists its power supply configurations.

Table 4-62 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	184.8 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 12802.3at (30 W per port): 6
RPS used	184.8 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 12802.3at (30 W per port): 6

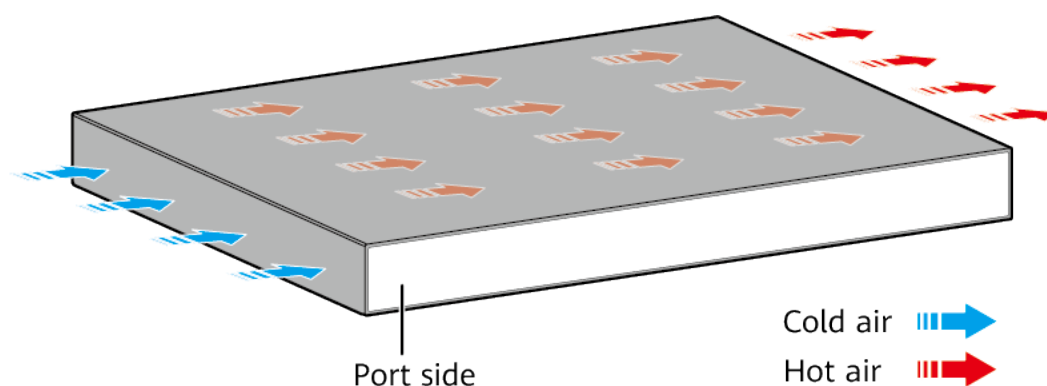
[Figure 4-24](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-24 Power supply mode of a built-in AC power module



Heat Dissipation

The S5701-28TP-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-63 lists technical specifications of the S5701-28TP-PWR-LI-AC.

Table 4-63 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	45.91 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	5.7 kg (12.57 lb)
Stack ports	Two uplink 1000BASE-X optical ports (non-combo ports)
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	238.7 W (system power consumption: 53.9 W, PoE: 184.8 W)
Typical power consumption (30% of traffic load)	29 W
	<ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010538

4.4.12 S5700-28X-LI-AC

Version Mapping

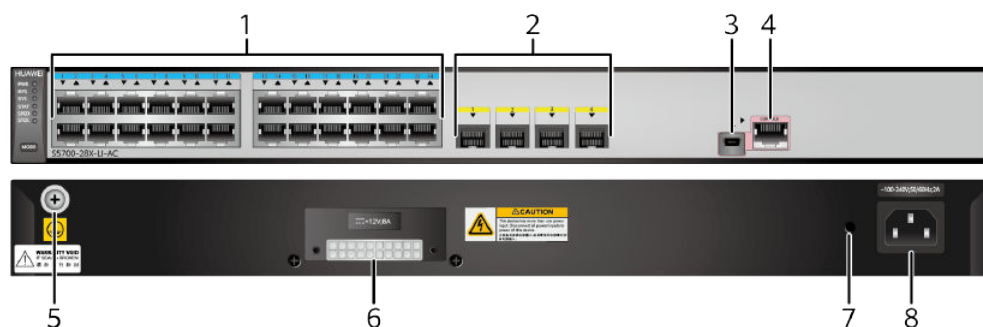
Table 4-64 lists the mapping between the S5700-28X-LI-AC chassis and software versions.

Table 4-64 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28X-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-25 S5700-28X-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port

5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-65** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-65 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. **Table 4-66** describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-66 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-67](#).

Table 4-67 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-26 Indicators on the S5700-28X-LI-AC

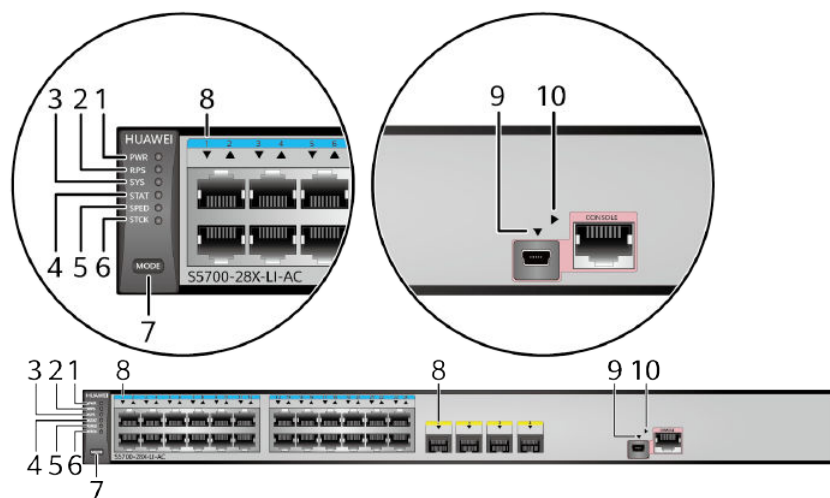


Table 4-68 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: internal power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold backup state. Blinking: The RPS is providing power for another device.
		Yellow	Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.

Number	Indicator/ Button	Color	Description
		Green	<p>Fast blinking:</p> <ul style="list-style-type: none"> The system is starting. The system is copying the system software and configuration file from a USB flash drive during a USB-based upgrade (only applicable to S5701-28X-LI-AC). <p>Slow blinking: The system is running normally.</p>
		Yellow	<p>Blinking:</p> <ul style="list-style-type: none"> The switch is in sleeping mode. During a USB-based upgrade, this indicator blinks after the switch downloads required files and restarts. At this time, the upgrade is successful and you can remove the USB flash drive (only applicable to S5701-28X-LI-AC). <p>NOTE The system can wake from the sleeping state if you press the MODE button. The S5700-10P-LI-AC does not support the sleeping function.</p>
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed (only applicable to S5701-28X-LI-AC).
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.

Number	Indicator/ Button	Color	Description
5	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in versions earlier than V200R003C00.	Green	<ul style="list-style-type: none"> Off: The stack mode is not selected. Steady on: The service port indicators show the stack information. After 45 seconds, the service port indicators automatically restore to the status mode. Blinking: The switch is the master switch in a stack or a standalone switch.
	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in V200R003C00 and later versions.	Green	If you are not changing the indicator mode (default): <ul style="list-style-type: none"> Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch. Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled.

Number	Indicator/ Button	Color	Description
			<p>If you are changing the indicator mode:</p> <ul style="list-style-type: none"> • Off: The stack mode is not selected. • Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch. • Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	MODE: mode switch button	-	<ul style="list-style-type: none"> • When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. • When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>

Number	Indicator/Button	Color	Description
8	Service port indicator <ul style="list-style-type: none"> • GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1. • SFP/SFP+ optical ports: Each port has an indicator above it. 		Meanings of service port indicators vary in different modes. For details, see Table 4-69 .
9	Mini USB indicator	Green	<ul style="list-style-type: none"> • Off: The Mini USB port is not active, and the console port is active. • Steady on: The Mini USB port is active. When this indicator is on, the console indicator is off.
10	Console indicator	Green	<ul style="list-style-type: none"> • Off: The console port is not active, and the Mini USB port is active. • Steady on (default): The console port is active. When this LED is on, the Mini USB port indicator is off.

Table 4-69 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

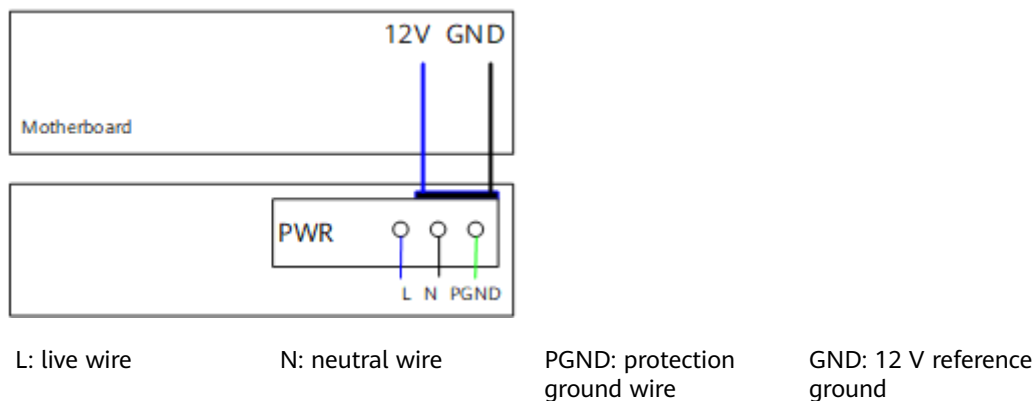
Display Mode	Color	Status	Description
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-28X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

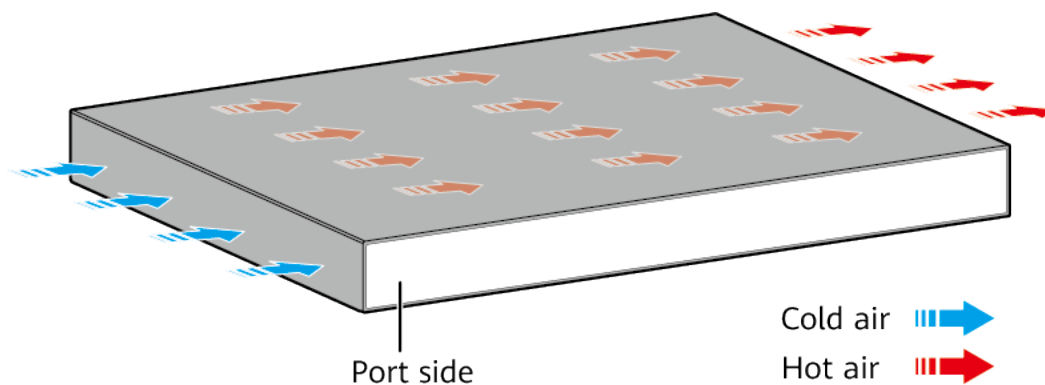
Figure 4-27 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-27 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-28X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-70 lists technical specifications of the S5700-28X-LI-AC.

Table 4-70 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	68.95 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.4 kg (7.5 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	41 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.7 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354215

4.4.13 S5700-28X-LI-DC

Version Mapping

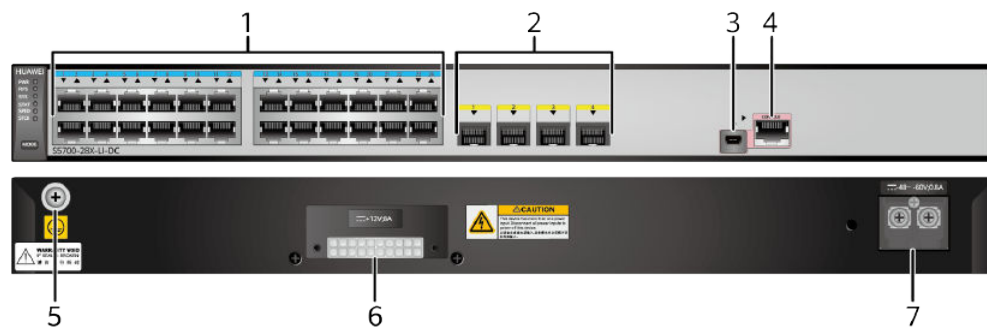
Table 4-71 lists the mapping between the S5700-28X-LI-DC chassis and software versions.

Table 4-71 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28X-LI-DC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-28 S5700-28X-LI-DC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port

5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	DC power terminal NOTE It is used together with a DC Power Cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-72](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-72 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-73](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-73 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-74](#).

Table 4-74 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

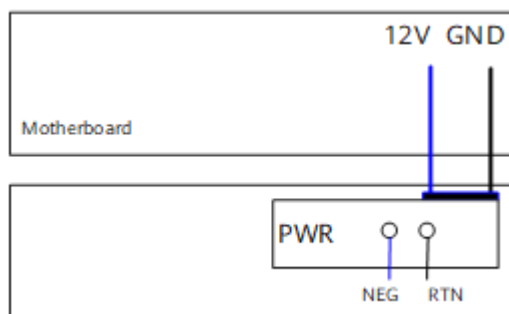
The S5700-28X-LI-DC has the same types of indicators as the S5700-28X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28X-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 4-29](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-29 Power supply by a single DC power module



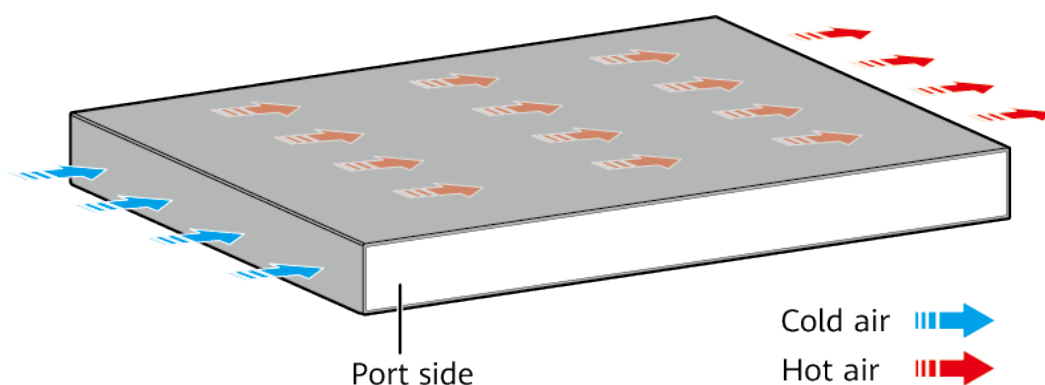
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5700-28X-LI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-75 lists technical specifications of the S5700-28X-LI-DC.

Table 4-75 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	68.95 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.3 kg (7.28 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	42 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	30.7 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354234

4.4.14 S5700-28X-PWR-LI-AC

Version Mapping

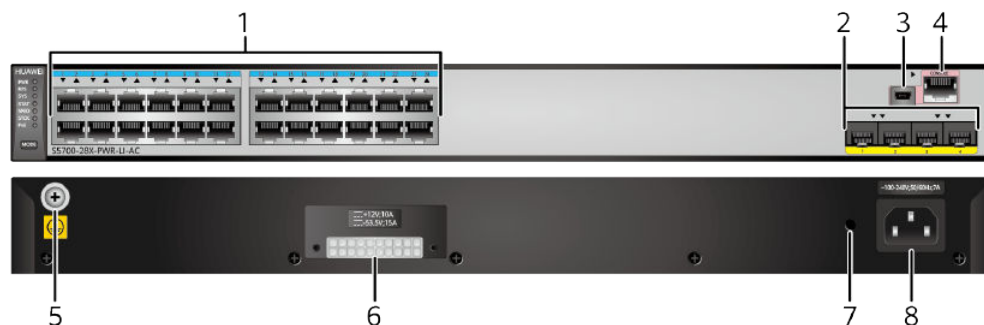
Table 4-76 lists the mapping between the S5700-28X-PWR-LI-AC chassis and software versions.

Table 4-76 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28X-PWR-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-30 S5700-28X-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2 Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4 One console port

5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>RPS socket</p> <p>NOTE</p> <ul style="list-style-type: none"> • It is used with an RPS cable which is not hot swappable. • A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.
7	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-77](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-77 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-78](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-78 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-79](#).

Table 4-79 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-31 Indicators on the S5700-28X-PWR-LI-AC

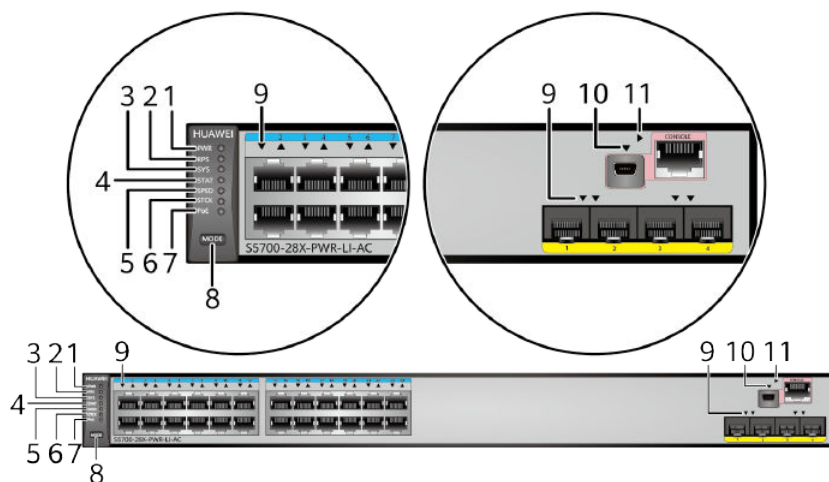


Table 4-80 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: internal power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.

Number	Indicator/ Button	Color	Description
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold backup state or forced power-on state. Blinking: The RPS is providing power for another device.
		Yellow	<ul style="list-style-type: none"> Steady on: The RPS is in alarm state. (No 870 W PoE power module is available in the RPS1800 or the RPS1800 cannot provide power supply to the local switch at this time.) Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is running normally.
		Red	Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/ Button	Color	Description
6	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in versions earlier than V200R003C00.	Green	<ul style="list-style-type: none"> ● Off: The stack mode is not selected. ● Steady on: The service port indicators show the stack information. After 45 seconds, the service port indicators automatically restore to the status mode. ● Blinking: The switch is the master switch in a stack or a standalone switch.
	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in V200R003C00 and later versions.	Green	If you are not changing the indicator mode (default): <ul style="list-style-type: none"> ● Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch. ● Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: <ul style="list-style-type: none"> ● Off: The stack mode is not selected. ● Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch. ● Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/ Button	Color	Description
7	PoE: PoE indicator	Green	<ul style="list-style-type: none">• Off: The PoE mode is not selected.• Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
8	MODE: mode switch button	-	<ul style="list-style-type: none">• When you press this button once, the service port indicators change to the speed mode and show the speed of each service port.• When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch.• When you press this button a third time, the service port indicators change to PoE mode and show the PoE status of ports.• When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>NOTE On the S5700-52P-PWR-LI-AC and S5700-28P-PWR-LI-AC of the V200R001 version, the indicator switching sequence is Speed -> PoE -> Stack.</p> <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>

Number	Indicator/ Button	Color	Description
9	Service port indicator <ul style="list-style-type: none"> • GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1. • 10GE optical ports: Each port has an indicator above it. 		Meanings of service port indicators vary in different modes. For details, see Table 4-81 .
10	Mini USB indicator	Green	<ul style="list-style-type: none"> • Off: The Mini USB port is not active, and the console port is active. • Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>
11	Console indicator	Green	<ul style="list-style-type: none"> • Off: The console port is not active, and the Mini USB port is active. • Steady on (default): The console port is active. <p>When this LED is on, the Mini USB port indicator is off.</p>

Table 4-81 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	<p>The switch is not the master switch in a stack.</p> <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	<p>The switch is the master switch in a stack.</p> <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

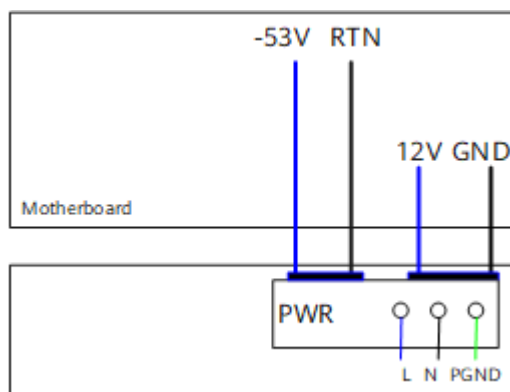
The S5700-28X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. It can provide PoE power supply and connect to an RPS1800 power supply for power redundancy. [Table 4-82](#) lists its power supply configurations.

Table 4-82 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 12
RPS used	800 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24

[Figure 4-32](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

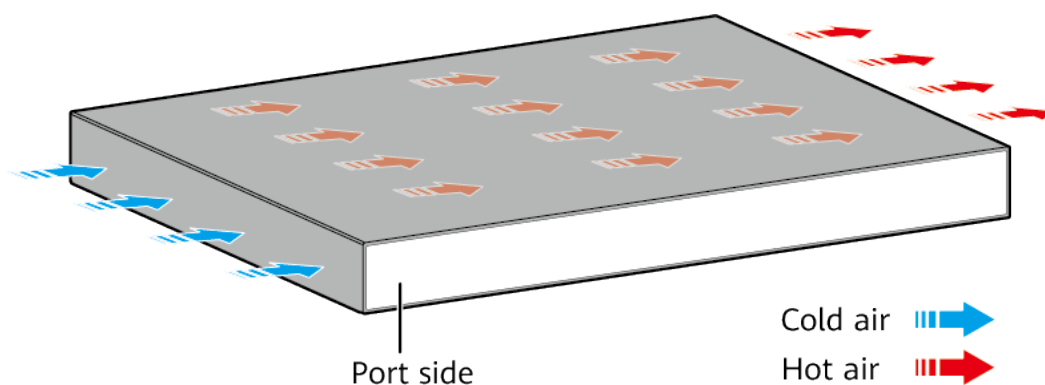
Figure 4-32 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-28X-PWR-LI-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-83 lists technical specifications of the S5700-28X-PWR-LI-AC.

Table 4-83 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB

Item	Description
Mean time between failures (MTBF)	61.53 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	4.7 kg (10.36 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	448.8 W (system power consumption: 78.8 W, PoE: 370 W)
Typical power consumption (30% of traffic load)	39.4 W
<ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	02354217

4.4.15 S5700-28X-LI-24S-AC

Version Mapping

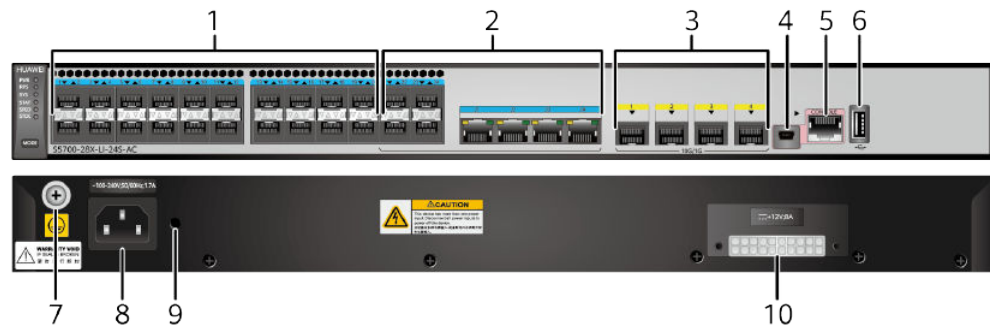
Table 4-84 lists the mapping between the S5700-28X-LI-24S-AC chassis and software versions.

Table 4-84 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28X-LI-24S-AC	V200R003C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-33 S5700-28X-LI-24S-AC appearance



1	Twenty 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
---	---	---	--

3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One mini USB port
5	One console port	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>
9	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-85](#) describes the attributes of a 100/1000BASE-X port.

Table 4-85 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-86](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-86 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-87](#).

Table 4-87 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

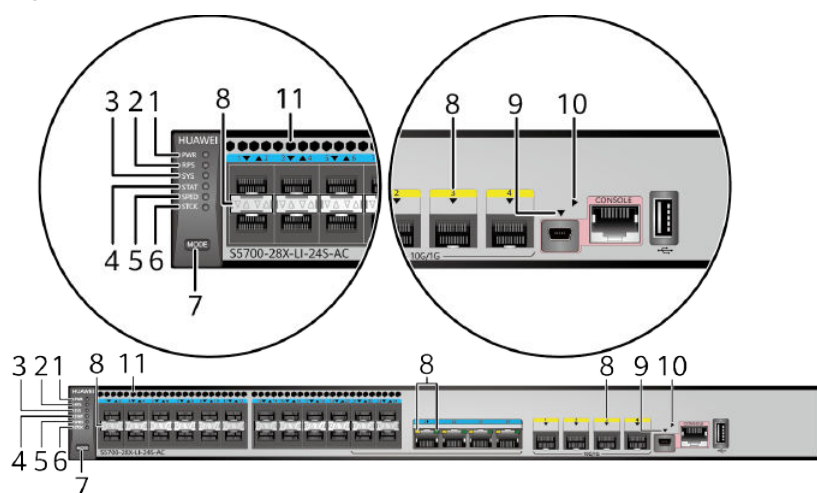
Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-34 Indicators on the S5700-28X-LI-24S-AC



NOTE

The S5701-28X-LI-24S-AC, S5700-28X-LI-24S-AC, and S5700-28X-LI-24S-DC have air holes above the 24 optical ports for heat dissipation (numbered 11 in [Figure 4-34](#)). The indicators for the service ports are numbered 8 in [Figure 4-34](#).

Table 4-88 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: internal power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.

Number	Indicator/ Button	Color	Description
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold backup state. Blinking: The RPS is providing power for another device.
		Yellow	Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade. Slow blinking: The system is running normally.
		Yellow	Blinking: The switch has restarted after a successful upgrade using a USB flash drive. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.

Number	Indicator/ Button	Color	Description
5	SPED: speed indicator	Green	<ul style="list-style-type: none">• Off: The speed mode is not selected.• Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator	Green	<p>If you are not changing the indicator mode (default):</p> <ul style="list-style-type: none">• Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch.• Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">• Off: The stack mode is not selected.• Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.• Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

Number	Indicator/ Button	Color	Description
7	MODE: mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT mode turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	Service port indicator NOTE Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.	Meanings of service port indicators vary in different modes. For details, see Table 4-89 and Table 4-90 .	
9	Mini USB indicator	Green	<ul style="list-style-type: none"> Off: The Mini USB port is not active, and the console port is active. Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>

Number	Indicator/Button	Color	Description
10	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. When this LED is on, the Mini USB port indicator is off.

Table 4-89 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 4-90 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

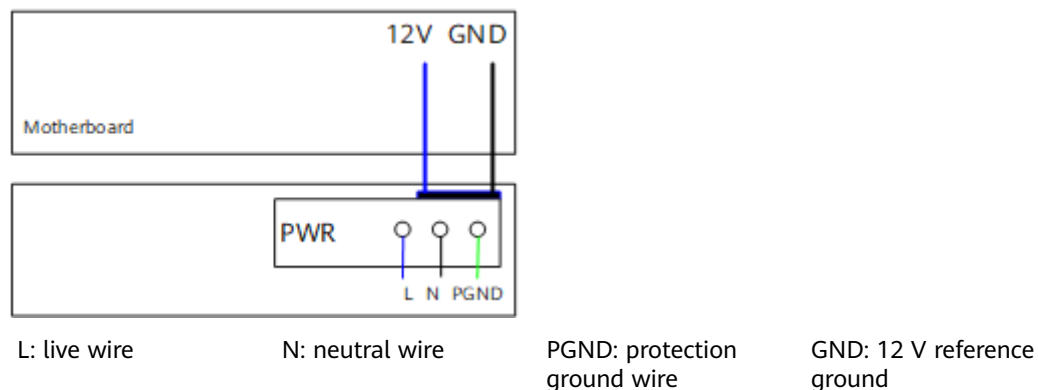
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-28X-LI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

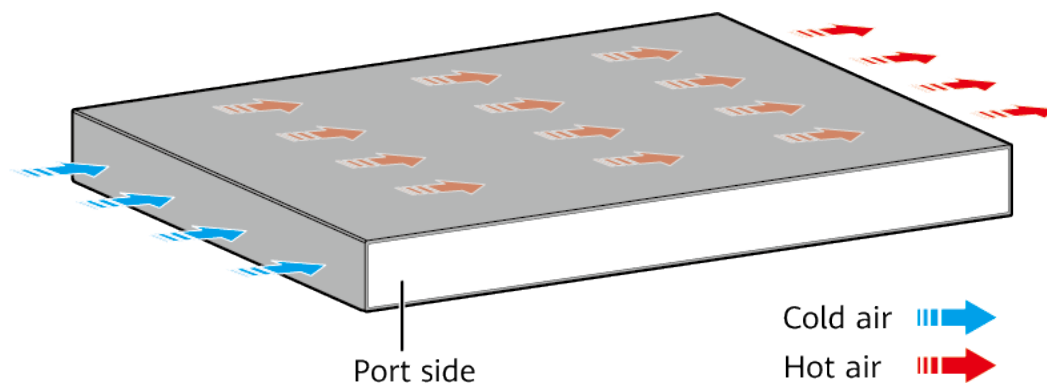
Figure 4-35 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-35 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-28X-LI-24S-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-91 lists specifications of the S5700-28X-LI-24S-AC.

Table 4-91 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	89.91 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	60 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	49.7 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02355271

4.4.16 S5700-28X-LI-24S-DC

Version Mapping

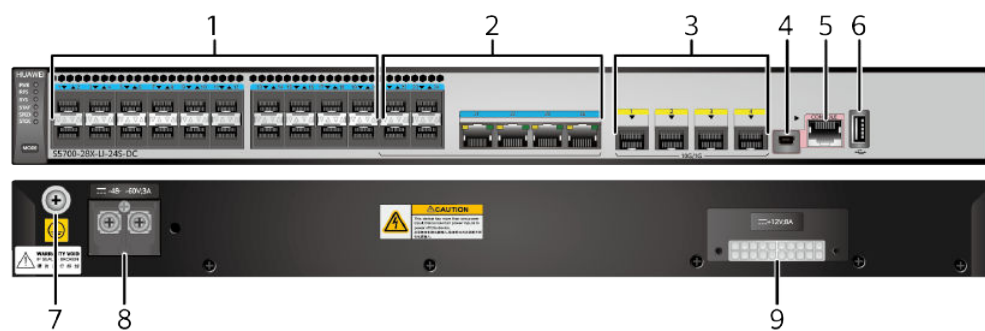
Table 4-92 lists the mapping between the S5700-28X-LI-24S-DC chassis and software versions.

Table 4-92 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28X-LI-24S-DC	V200R003C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-36 S5700-28X-LI-24S-DC appearance



1	<p>Twenty 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One mini USB port
5	One console port	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>
9	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-93](#) describes the attributes of a 100/1000BASE-X port.

Table 4-93 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-94](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-94 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-95](#).

Table 4-95 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

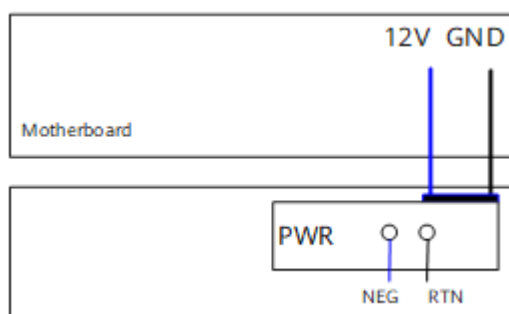
The S5700-28X-LI-24S-DC has the same types of indicators as the S5700-28X-LI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28X-LI-24S-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 4-37 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-37 Power supply by a single DC power module



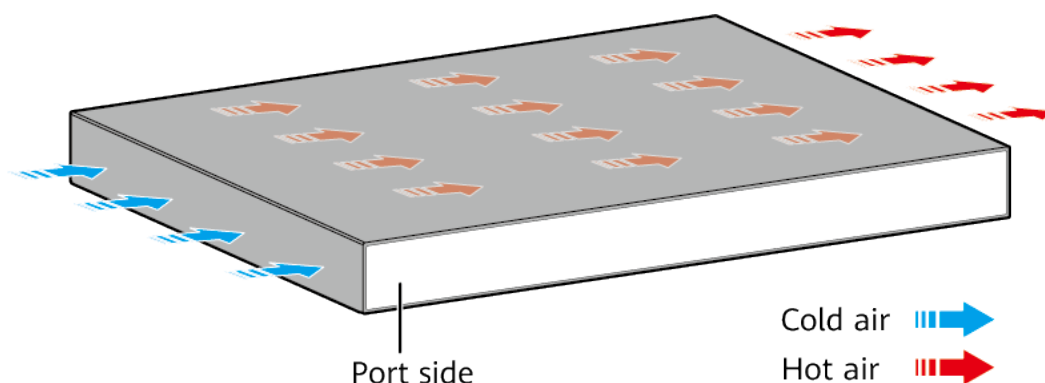
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5700-28X-LI-24S-DC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-96 lists technical specifications of the S5700-28X-LI-24S-DC.

Table 4-96 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	89.91 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	57 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	46.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02355303

4.4.17 S5701-28X-LI-AC

Version Mapping

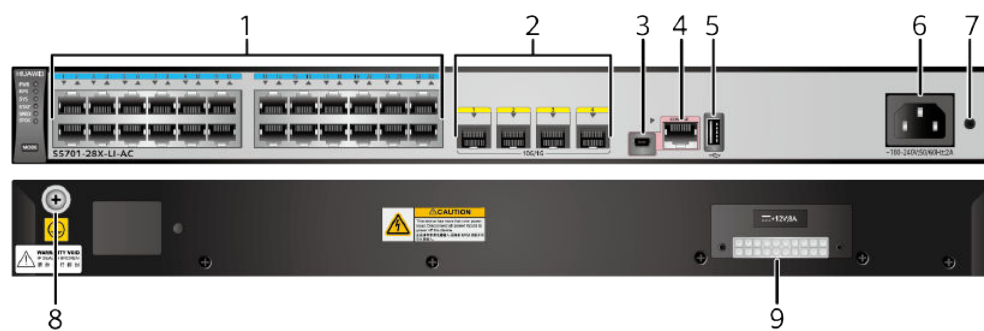
Table 4-97 lists the mapping between the S5701-28X-LI-AC chassis and software versions.

Table 4-97 Version mapping

Series	Model	Software Version
S5700-LI	S5701-28X-LI-AC	V200R003C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-38 S5701-28X-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	One USB port	6	AC socket NOTE It is used with an AC power cable .
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	Ground screw NOTE It is used with a ground cable .
9	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-98](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-98 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-99](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-99 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-100](#).

Table 4-100 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

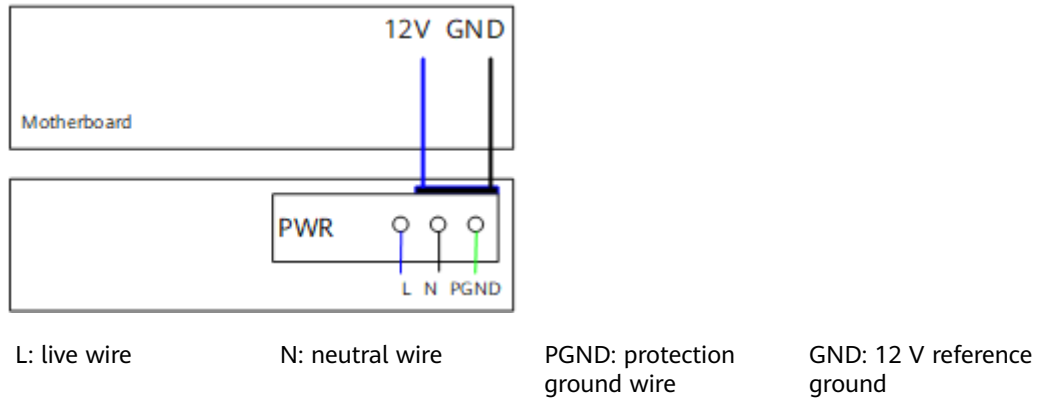
The S5701-28X-LI-AC has the same types of indicators as the S5700-28X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5701-28X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

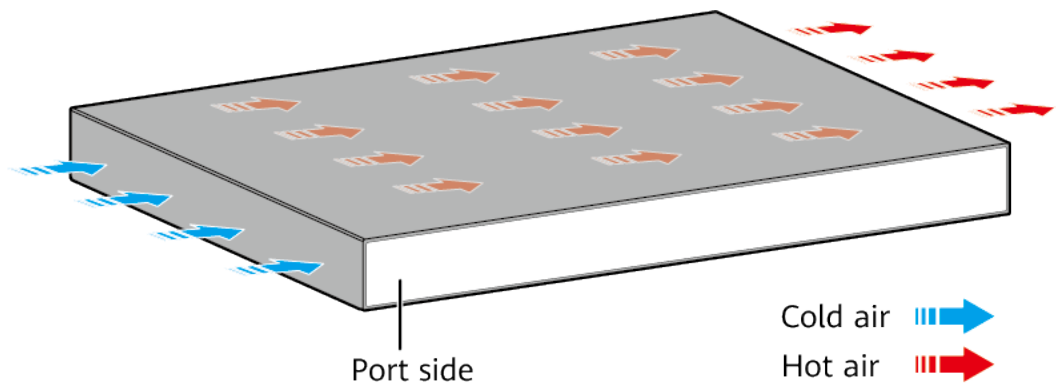
[Figure 4-39](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-39 Power supply mode of a built-in AC power module



Heat Dissipation

The S5701-28X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-101 lists technical specifications of the S5701-28X-LI-AC.

Table 4-101 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	70.32 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3 kg (11.02 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	41 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.7 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02357675

4.4.18 S5701-28X-LI-24S-AC

Version Mapping

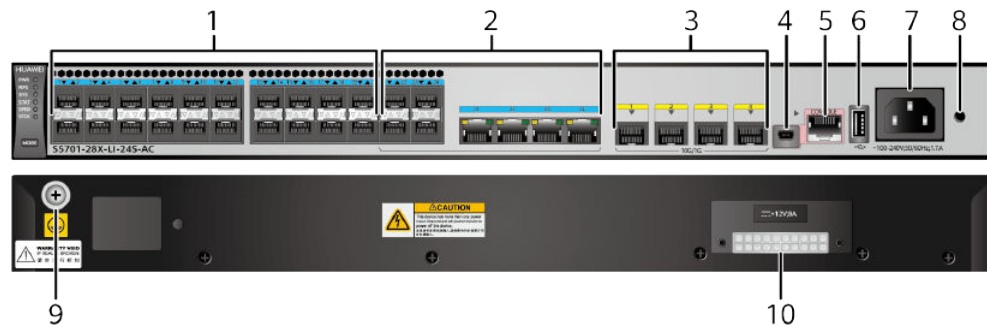
Table 4-102 lists the mapping between the S5701-28X-LI-24S-AC chassis and software versions.

Table 4-102 Version mapping

Series	Model	Software Version
S5700-LI	S5701-28X-LI-24S-AC	V200R003C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-40 S5701-28X-LI-24S-AC appearance



1	Twenty 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
---	---	---	--

3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One mini USB port
5	One console port	6	One USB port
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. **Table 4-103** describes the attributes of a 100/1000BASE-X port.

Table 4-103 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-104](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-104 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-105](#).

Table 4-105 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

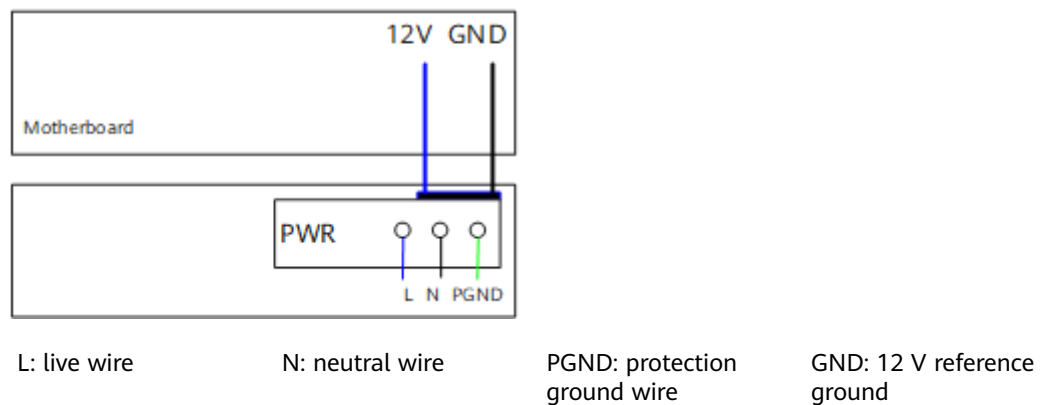
The S5701-28X-LI-24S-AC has the same types of indicators as the S5700-28X-LI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5701-28X-LI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

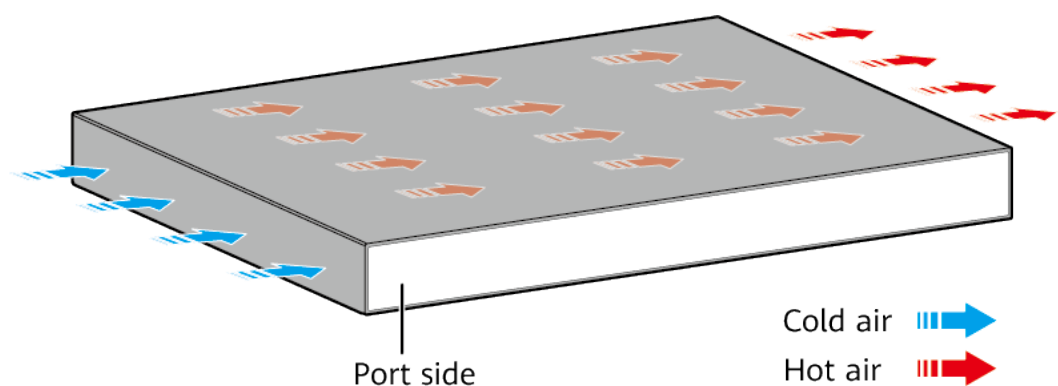
Figure 4-41 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-41 Power supply mode of a built-in AC power module



Heat Dissipation

The S5701-28X-LI-24S-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-106 lists technical specifications of the S5701-28X-LI-24S-AC.

Table 4-106 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	89.91 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	60 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	49.7 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02357676

4.4.19 S5700-52X-LI-AC

Version Mapping

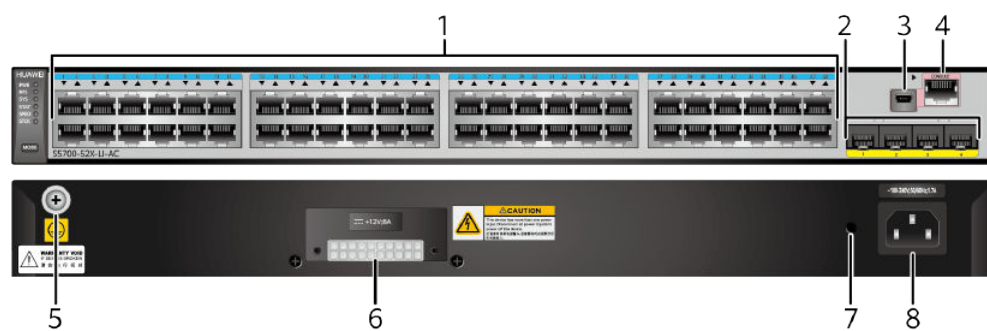
Table 4-107 lists the mapping between the S5700-52X-LI-AC chassis and software versions.

Table 4-107 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52X-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-42 S5700-52X-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-108** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-108 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-109](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-109 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-110](#).

Table 4-110 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

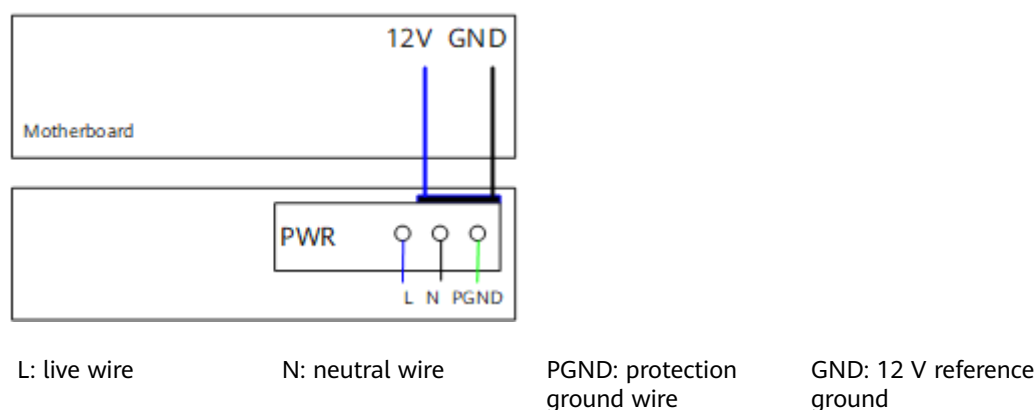
The S5700-52X-LI-AC has the same types of indicators as the S5700-28X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

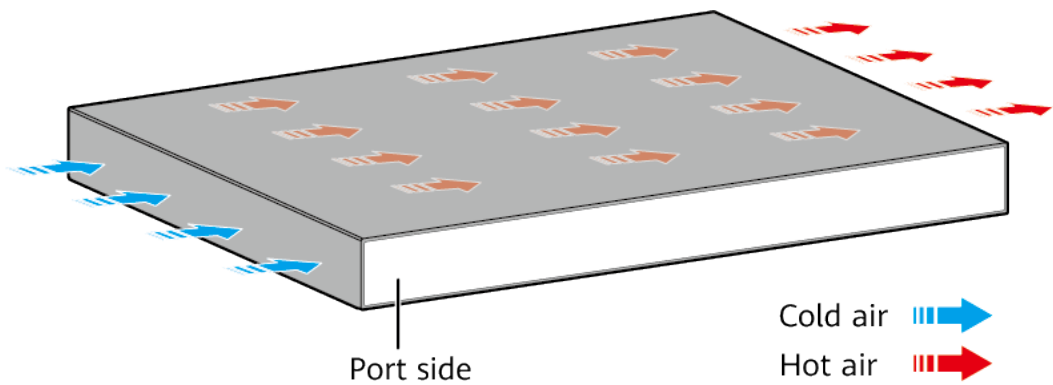
[Figure 4-43](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-43 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-52X-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-111 lists technical specifications of the S5700-52X-LI-AC.

Table 4-111 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	61.86 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported

Item	Description
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	61 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	45.5 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354216

4.4.20 S5700-52X-LI-DC

Version Mapping

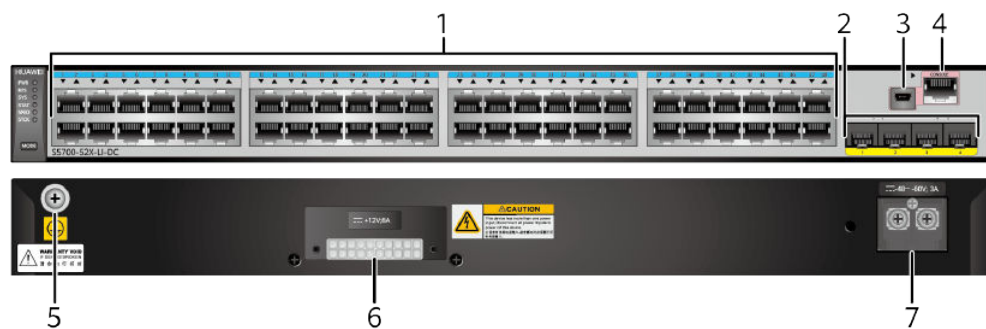
Table 4-112 lists the mapping between the S5700-52X-LI-DC chassis and software versions.

Table 4-112 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52X-LI-DC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-44 S5700-52X-LI-DC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	DC power terminal NOTE It is used together with a DC Power Cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-113** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-113 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-114](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-114 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-115](#).

Table 4-115 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

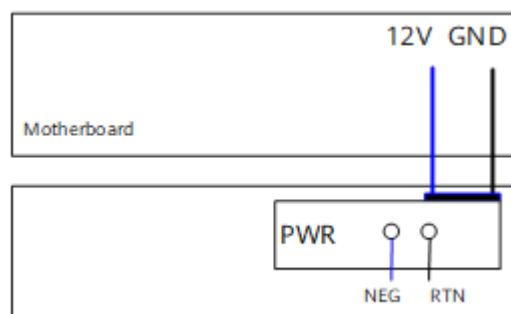
The S5700-52X-LI-DC has the same types of indicators as the S5700-28X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52X-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 4-45](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-45 Power supply by a single DC power module



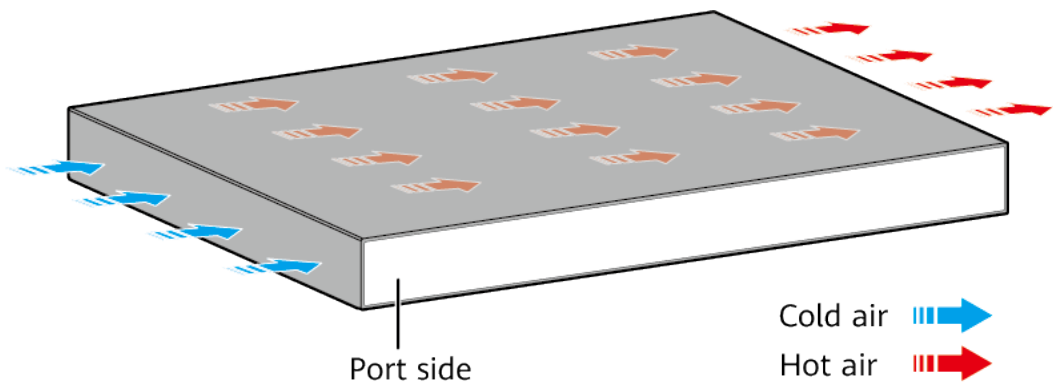
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5700-52X-LI-DC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-116 lists technical specifications of the S5700-52X-LI-DC.

Table 4-116 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	61.86 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	4.3 kg (9.48 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported

Item	Description
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	60 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.2 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354235

4.4.21 S5700-52X-PWR-LI-AC

Version Mapping

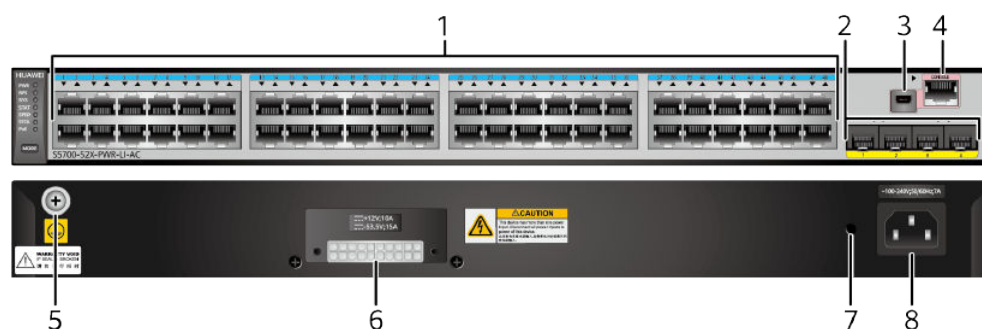
Table 4-117 lists the mapping between the S5700-52X-PWR-LI-AC chassis and software versions.

Table 4-117 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52X-PWR-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-46 S5700-52X-PWR-LI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>RPS socket</p> <p>NOTE</p> <ul style="list-style-type: none"> • It is used with an RPS cable which is not hot swappable. • A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.
7	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-118](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-118 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-119](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-119 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-120](#).

Table 4-120 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

The S5700-52X-PWR-LI-AC has the same types of indicators as the S5700-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

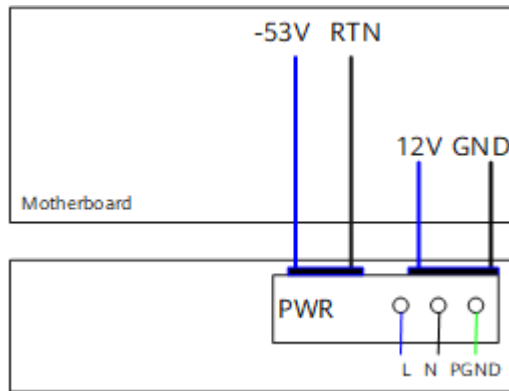
The S5700-52X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. It can provide PoE power supply and connect to an RPS1800 power supply for power redundancy. [Table 4-121](#) lists its power supply configurations.

Table 4-121 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12
RPS used	800 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 48802.3at (30 W per port): 26

[Figure 4-47](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

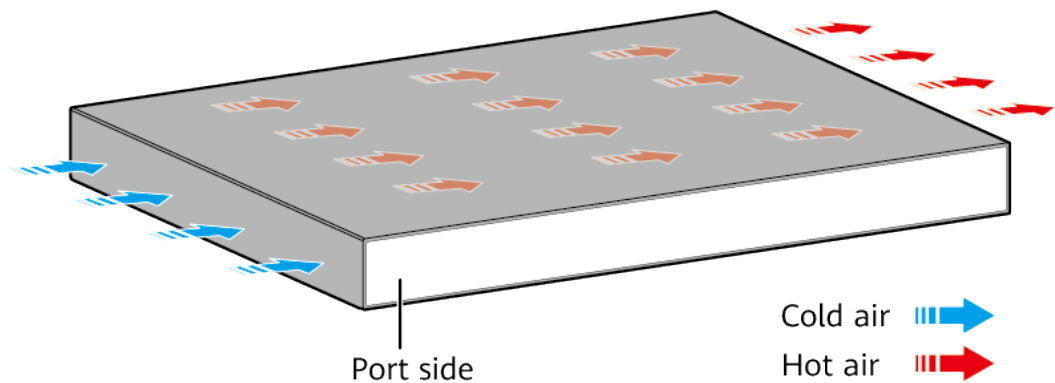
Figure 4-47 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-52X-PWR-LI-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-122 lists technical specifications of the S5700-52X-PWR-LI-AC.

Table 4-122 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB

Item	Description
Mean time between failures (MTBF)	40.72 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	4.8 kg (10.58 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	479.3 W (system power consumption: 109.3 W, PoE: 370 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	48.6 W

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354218

4.4.22 S5700-52X-LI-48CS-AC

Version Mapping

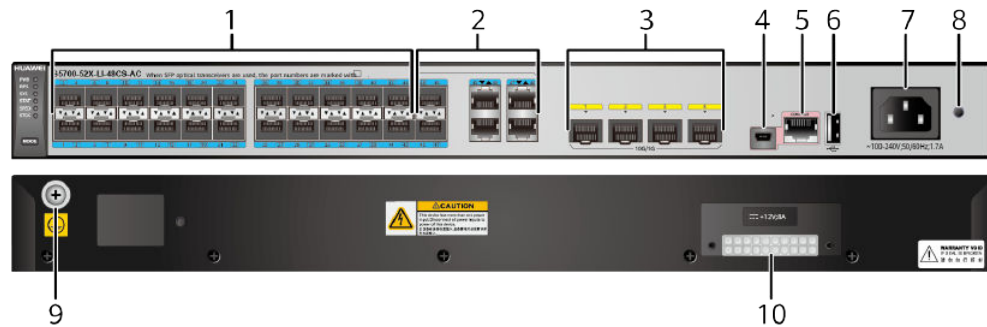
Table 4-123 lists the mapping between the S5700-52X-LI-48CS-AC chassis and software versions.

Table 4-123 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52X-LI-48CS-AC	V200R003C02 to V200R012C00 versions NOTE This model does not match V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-48 S5700-52X-LI-48CS-AC appearance



<p>1 Forty-four 100/1000BASE-X CSFP ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • CSFP optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) <p>NOTE</p> <ul style="list-style-type: none"> • When all the ports have CSFP optical modules installed, each port functions as two ports. The switch has a total of 44 ports in this case. • When all the ports have SFP optical modules installed, each port functions as one port. The switch has a total of 22 ports. 	<p>2 Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • CSFP optical module <p>NOTE</p> <p>The four combo ports (numbered 45, 46, 47, and 48) on a CSFP switch include four electrical ports and two optical ports. The two optical ports can function as four optical modules when they have Compact Small Form-Factor Pluggable (CSFP) optical modules installed. When the two optical ports have SFP optical modules installed, the electrical ports 45 and 48 can be used normally.</p>
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One mini USB port
5	One console port	6	One USB port
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X CSFP port

A 100/1000BASE-X CSFP port can send and receive data at 100 Mbit/s or 1000 Mbit/s. When using a CSFP optical module, each 100/1000BASE-X CSFP port works as two ports. When using an SFP optical module, each 100/1000BASE-X CSFP port works as one port. **Table 4-124** describes the attributes of a 100/1000BASE-X CSFP port.

Table 4-124 Attributes of a 100/1000BASE-X CSFP port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s

 **NOTE**

CSFP ports using CSFP optical modules cannot connect to each other. A CSFP optical module must be connected to two BIDI SFP optical modules using two optical fibers. You can install an SFP optical module on a CSFP port and use it as a common SFP port.

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-125](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-125 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-126](#).

Table 4-126 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-49 Indicators on the S5700-52X-LI-48CS-AC

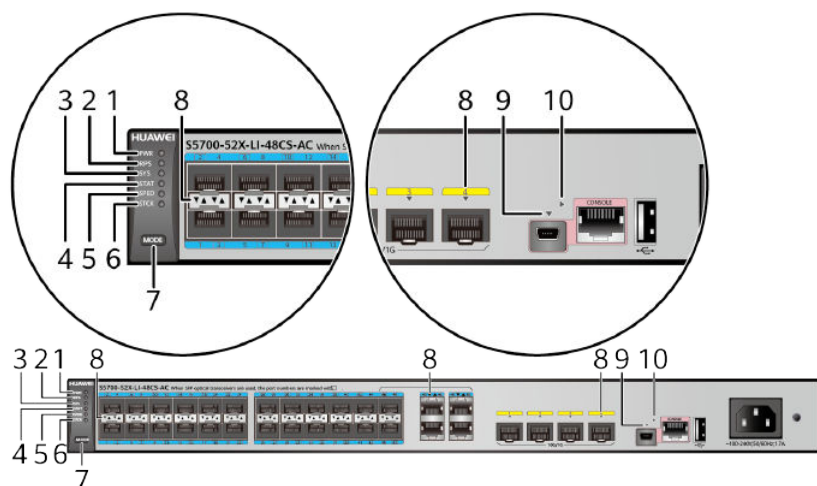


Table 4-127 Description of indicators on the switch

Number	Indicator/Button	Color	Description
1	PWR: internal power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.

Number	Indicator/ Button	Color	Description
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold backup state. Blinking: The RPS is providing power for another device.
		Yellow	Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade. Slow blinking: The system is running normally.
		Yellow	Blinking: The switch has restarted after a successful upgrade using a USB flash drive. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.

Number	Indicator/Button	Color	Description
5	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator	Green	<p>If you are not changing the indicator mode (default):</p> <ul style="list-style-type: none"> Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch. Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none"> Off: The stack mode is not selected. Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch. Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

Number	Indicator/Button	Color	Description
7	MODE: mode switch button	-	<ul style="list-style-type: none">When you press this button once, the service port indicators change to the speed mode and show the speed of each service port.When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch.When you press this button a third time, the service port indicators restore to the default mode, and the STAT mode turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	Service port indicator NOTE Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.	Meanings of service port indicators vary in different modes. For details, see Table 4-128 .	
9	Mini USB indicator	Green	<ul style="list-style-type: none">Off: The Mini USB port is not active, and the console port is active.Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>

Number	Indicator/Button	Color	Description
10	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. When this LED is on, the Mini USB port indicator is off.

Table 4-128 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

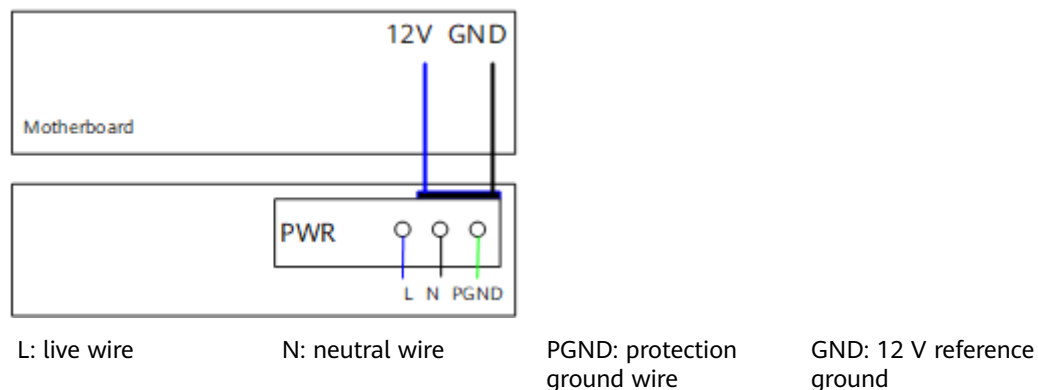
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-52X-LI-48CS-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

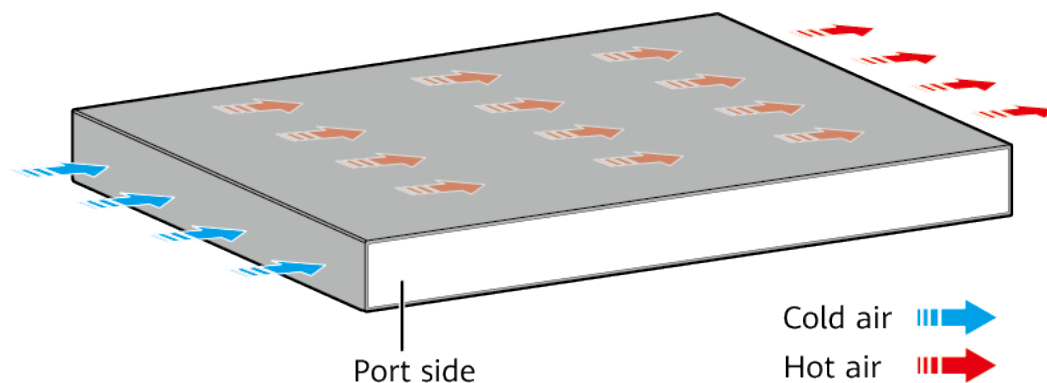
Figure 4-50 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-50 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-52X-LI-48CS-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-129 lists technical specifications of the S5700-52X-LI-48CS-AC.

Table 4-129 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	92.57 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Combo electrical port: ± 2 kV in common mode
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.4 kg (7.5 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	79.93 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	69.17 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 67.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02357823

4.5 S5700S-LI

4.5.1 S5700S-28P-LI-AC

Version Mapping

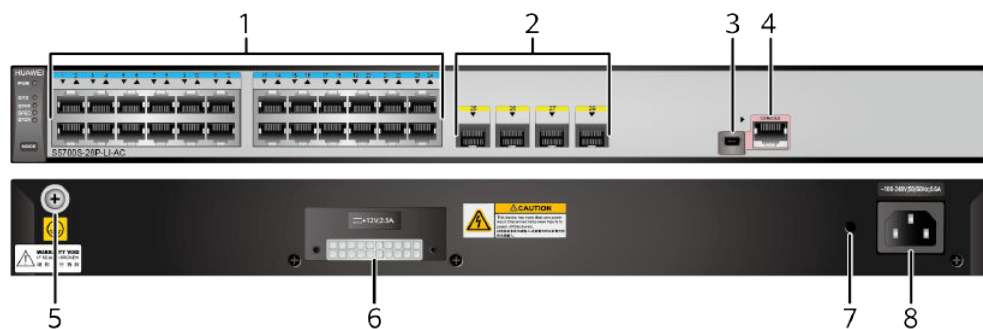
Table 4-130 lists the mapping between the S5700S-28P-LI-AC chassis and software versions.

Table 4-130 Version mapping

Series	Model	Software Version
S5700S-LI	S5700S-28P-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-51 S5700S-28P-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-131](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-131 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-132](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-132 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-133](#).

Table 4-133 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-52 Indicators on the S5700S-28P-LI-AC

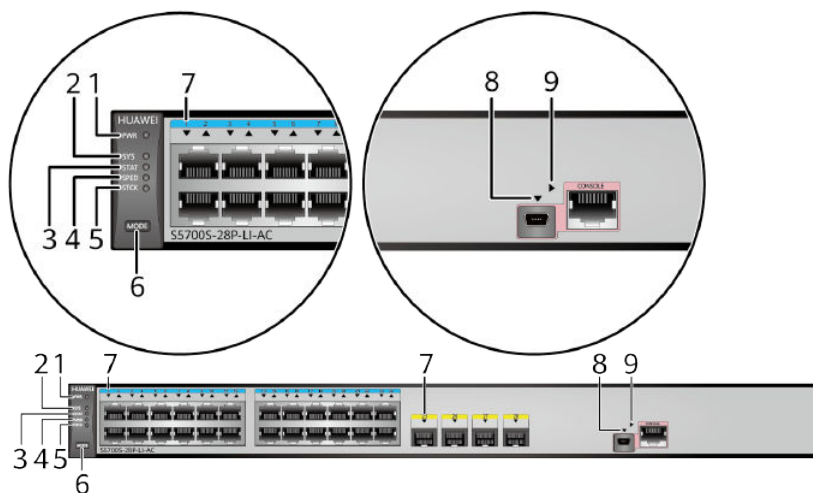


Table 4-134 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: built-in power module indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is operating properly.
		Yellow	Blinking: The system is in the sleep state. NOTE The system can wake from the sleeping state if you press the MODE button.
		Red	Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.
3	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/Button	Color	Description
5	STCK: stack indicator	-	Currently, the switch does not support stacking. This indicator is reserved for the stacking function.
6	MODE: mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the SPED indicator turns green and the service port indicators show the speed of each service port. When you press the button a second time, the STAT indicator turns green. <p>If you do not press the button within 45 seconds, the indicators restore to the default states. That is, the STAT indicator turns green, and the SPED and STCK indicators are off.</p>
7	Service port indicator <ul style="list-style-type: none"> GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1. GE optical ports: Each port has an indicator above it. 		Meanings of service port indicators vary in different modes. For details, see Table 4-135 .
8	Mini USB indicator	Green	<ul style="list-style-type: none"> Off: The Mini USB port is not active, and the console port is active. Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>

Number	Indicator/Button	Color	Description
9	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. <p>When this LED is on, the Mini USB port indicator is off.</p>

Table 4-135 Description of service port indicators in different modes

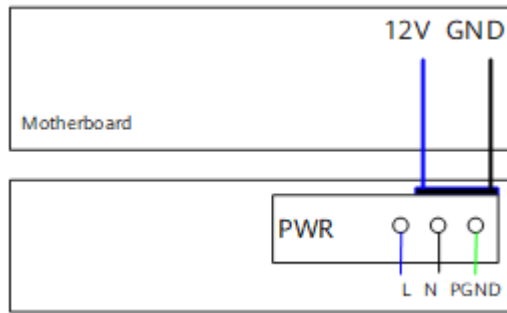
Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: The port is connected. Blinking: The port is sending or receiving data.
Speed	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s. Blinking: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply Configuration

The S5700S-28P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 4-53 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-53 Power supply mode of a built-in AC power module



L: live wire

N: neutral wire

PGND: protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5700S-28P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-136 lists technical specifications of the S5700S-28P-LI-AC.

Table 4-136 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	49.69 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	2.8 kg (6.17 lb)

Item	Description
Stack ports	Not supported
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	24 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	19.3 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 45°C (32°F to 113°F) when it uses SFP optical modules with 80 km or longer transmission distances.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353836

4.5.2 S5700S-28P-PWR-LI-AC

Version Mapping

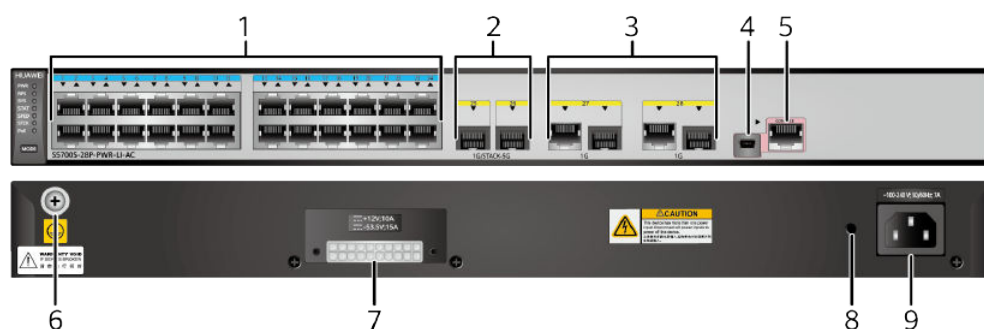
[Table 4-137](#) lists the mapping between the S5700S-28P-PWR-LI-AC chassis and software versions.

Table 4-137 Version mapping

Series	Model	Software Version
S5700S-LI	S5700S-28P-PWR-LI-AC	V200R008C00 to V200R012C00 versions

Appearance and Structure

Figure 4-54 S5700S-28P-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Two 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module 	4	One mini USB port
5	One console port	6	Ground screw NOTE It is used with a ground cable .

7	<p>RPS socket</p> <p>NOTE</p> <ul style="list-style-type: none"> It is used with an RPS cable which is not hot swappable. A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power. 	8	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-138](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-138 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-139](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-139 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-140](#).

Table 4-140 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-55 Indicators on the S5700S-28P-PWR-LI-AC

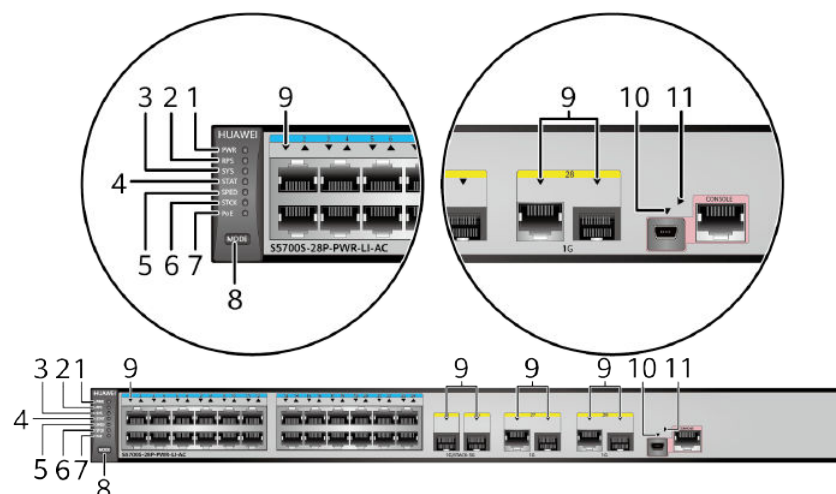


Table 4-141 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: internal power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold backup state or forced power-on state. Blinking: The RPS is providing power for another device.
		Yellow	<ul style="list-style-type: none"> Steady on: The RPS is in alarm state. (No 870 W PoE power module is available in the RPS1800 or the RPS1800 cannot provide power supply to the local switch at this time.) Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is running normally.
		Red	Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.

Number	Indicator/ Button	Color	Description
5	SPED: speed indicator	Green	<ul style="list-style-type: none">Off: The speed mode is not selected.Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator	Green	<p>If you are not changing the indicator mode (default):</p> <ul style="list-style-type: none">Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch.Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">Off: The stack mode is not selected.Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE: PoE indicator	Green	<ul style="list-style-type: none">Off: The PoE mode is not selected.Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/ Button	Color	Description
8	MODE: mode switch button	-	<ul style="list-style-type: none"> • When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. • When you press the button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press the button a third time, the service port indicators change to PoE mode and show the PoE status of ports. • When you press the button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	Service port indicator <ul style="list-style-type: none"> • GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1. • 10GE optical ports: Each port has an indicator above it. 		Meanings of service port indicators vary in different modes. For details, see Table 4-142 .

Number	Indicator/ Button	Color	Description
10	Mini USB indicator	Green	<ul style="list-style-type: none"> Off: The Mini USB port is not active, and the console port is active. Steady on: The Mini USB port is active. When this indicator is on, the console indicator is off.
11	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. When this LED is on, the Mini USB port indicator is off.

Table 4-142 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Display Mode	Color	Status	Description
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none">• The power required by the connected PD exceeds the maximum power or the configured power threshold of the port.• The total power consumption of PDs has reached the maximum power of the switch.• The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is steady on, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is blinking, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

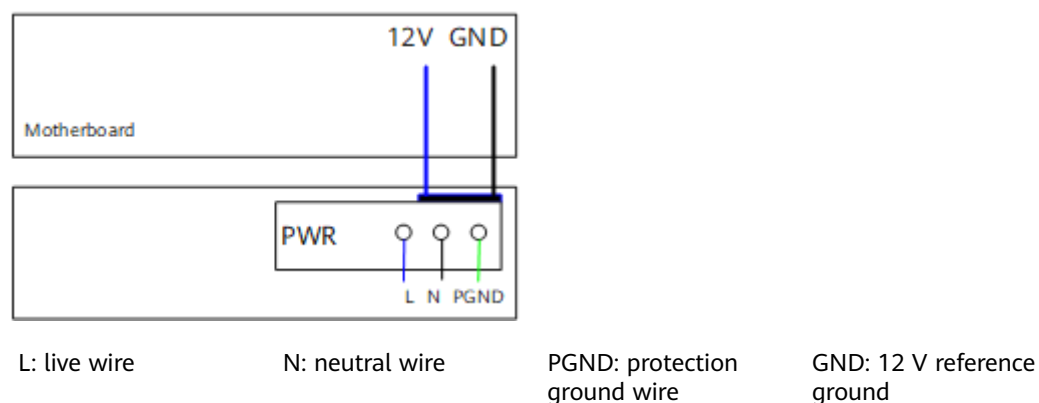
The S5700S-28P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy. [Table 4-143](#) lists its power supply configurations.

Table 4-143 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
RPS used	800 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

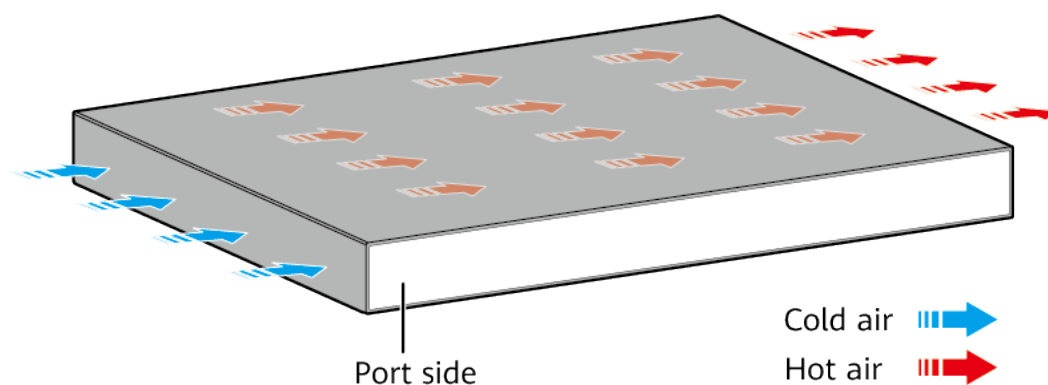
Figure 4-56 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-56 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700S-28P-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-144](#) lists technical specifications of the S5700S-28P-PWR-LI-AC.

Table 4-144 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	46.2 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	5.8 kg (12.79 lb)
Stack ports	Two uplink 1000BASE-X optical ports (non-combo ports)
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 45.8 W100% PoE loads: 469.7 W (system power consumption: 100.1 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	32 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010562

4.5.3 S5700S-52P-LI-AC

Version Mapping

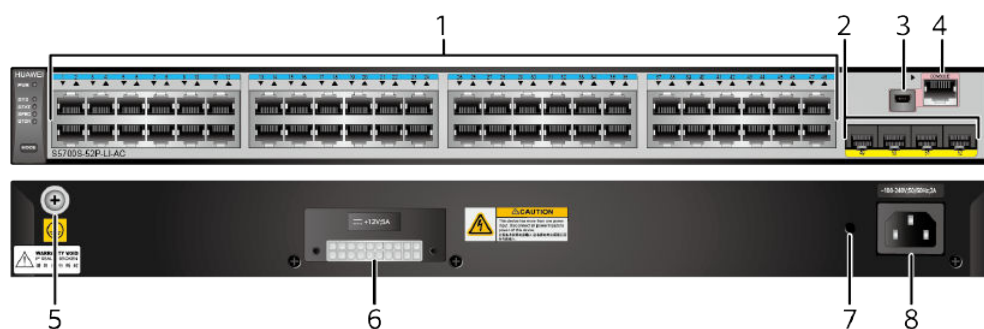
Table 4-145 lists the mapping between the S5700S-52P-LI-AC chassis and software versions.

Table 4-145 Version mapping

Series	Model	Software Version
S5700S-LI	S5700S-52P-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-57 S5700S-52P-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-146](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-146 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-147](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-147 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-148](#).

Table 4-148 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

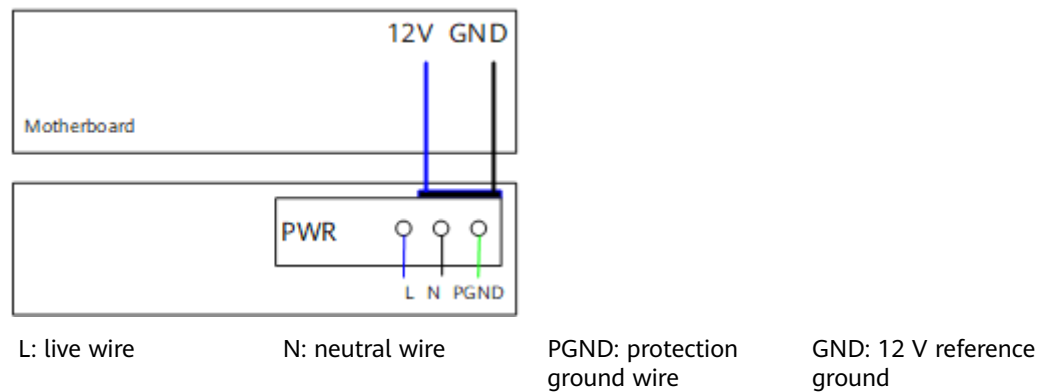
The S5700S-52P-LI-AC has the same types of indicators as the S5700S-28P-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700S-52P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

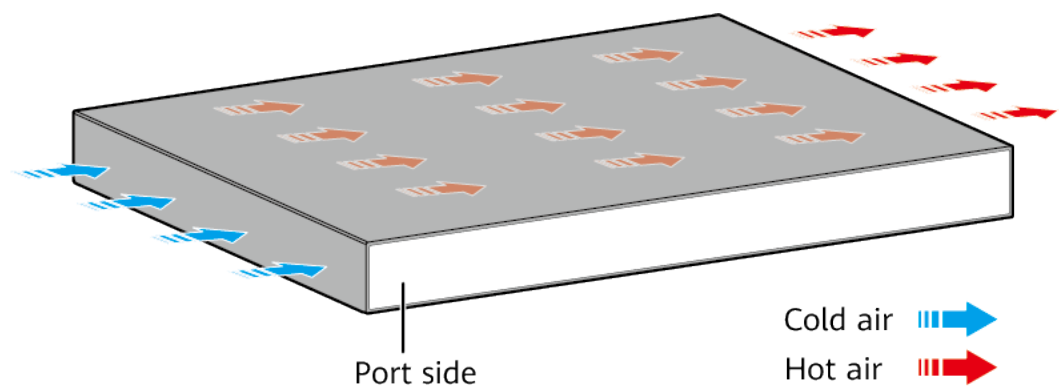
[Figure 4-58](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-58 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700S-52P-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-149 lists technical specifications of the S5700S-52P-LI-AC.

Table 4-149 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	39.26 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack ports	Not supported
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	48.4 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	32.5 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353835

4.5.4 S5700S-28X-LI-AC

Version Mapping

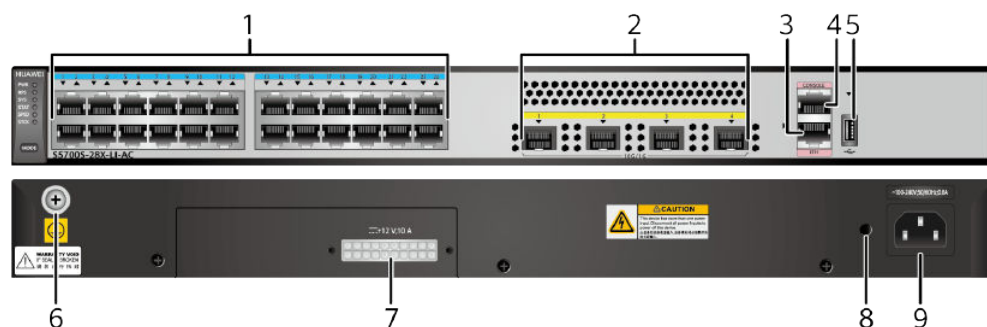
Table 4-150 lists the mapping between the S5700S-28X-LI-AC chassis and software versions.

Table 4-150 Version mapping

Series	Model	Software Version
S5700S-LI	S5700S-28X-LI-AC	V200R008C00 to V200R012C00 versions

Appearance and Structure

Figure 4-59 S5700S-28X-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket NOTE It is used with an AC power cable .	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-151](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-151 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-152](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-152 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 4-153](#).

Table 4-153 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-154](#) describes the attributes of an ETH management port.

Table 4-154 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

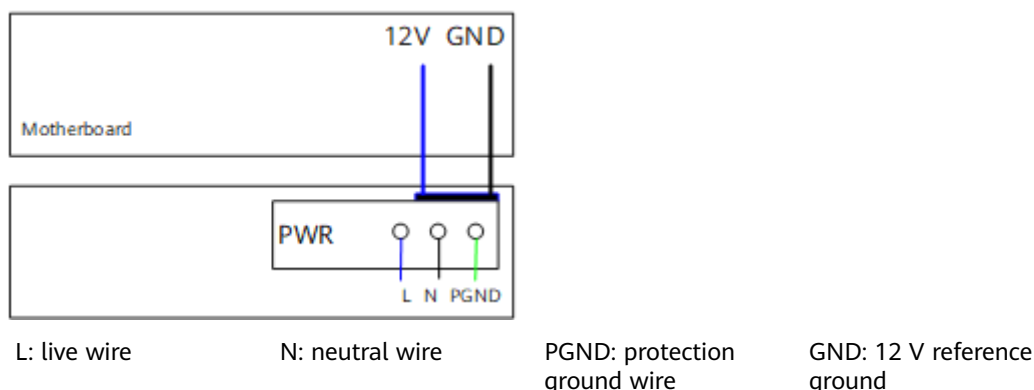
The S5700S-28X-LI-AC has the same types of indicators as the S5700S-52X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700S-28X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

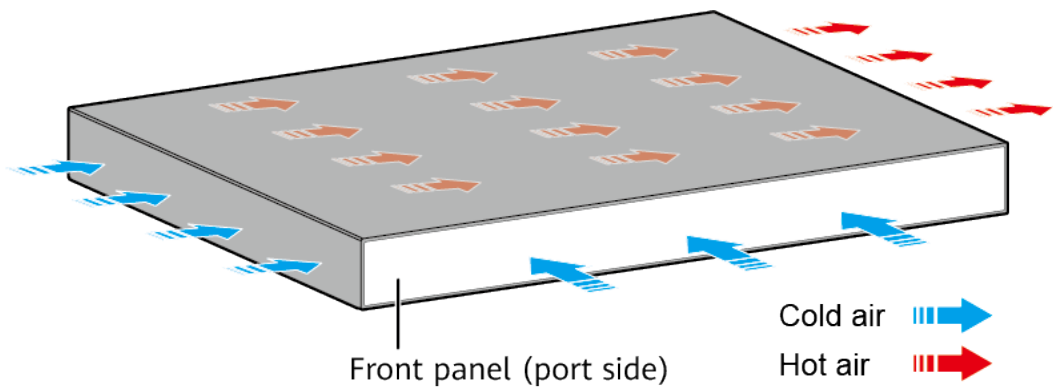
[Figure 4-60](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-60 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700S-28X-LI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-155 lists technical specifications of the S5700S-28X-LI-AC.

Table 4-155 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	100.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	4.8 kg (10.58 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	32 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	22 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350HEC

4.5.5 S5700S-52X-LI-AC

Version Mapping

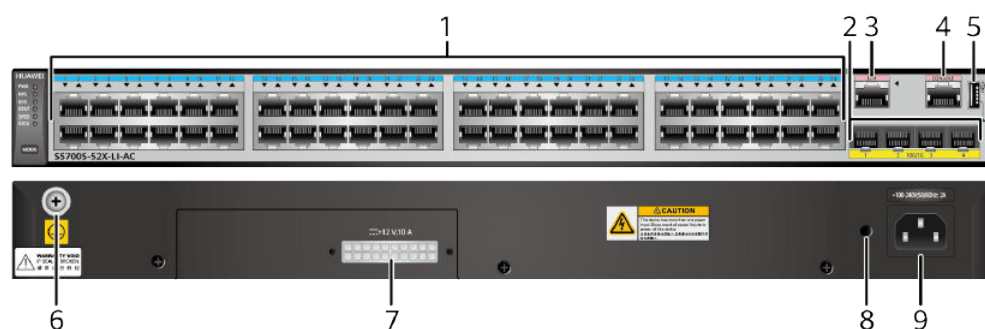
Table 4-156 lists the mapping between the S5700S-52X-LI-AC chassis and software versions.

Table 4-156 Version mapping

Series	Model	Software Version
S5700S-LI	S5700S-52X-LI-AC	V200R008C00 to V200R012C00 versions

Appearance and Structure

Figure 4-61 S5700S-52X-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket NOTE It is used with an AC power cable .	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-157](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-157 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-158](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-158 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 4-159](#).

Table 4-159 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-160](#) describes the attributes of an ETH management port.

Table 4-160 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

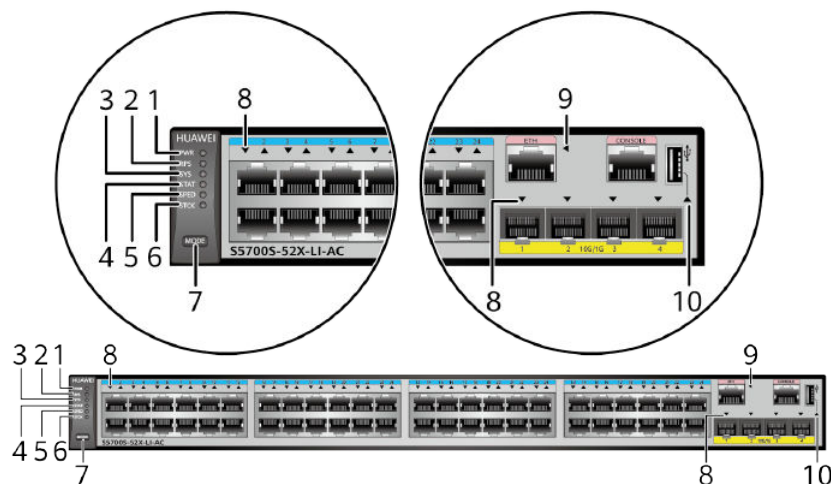
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-62 Indicators on the S5700S-52X-LI-AC



NOTE

The S5700S-52X-LI-AC provides a command that can turn on their fault indicators to help field maintenance personnel find a faulty switch.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators. When an S5700S-52X-LI-AC switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-161 Indicator Description

No.	Indicator/ Button	Color	Description
1	PWR: built-in power module indicator	-	Off: The switch is not powered on.
		Green	Steady on: The power module is supplying power normally.
		Yellow	Steady on: The power module has failed, and the switch is receiving power from a redundant power supply (RPS).
2	RPS: RPS indicator	-	Off: The switch is not connected to an RPS.
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold standby state. Blinking: The RPS is supplying power to another switch.
		Yellow	Blinking: The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is running normally.
		Yellow	Blinking: The system is in the sleep state. NOTE The system can wake from the sleeping state if you press the MODE button.
		Red	Steady on: The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. In this mode, service port indicators show the port link or activity state.

No.	Indicator/ Button	Color	Description
5	SPED: speed indicator	Green	<ul style="list-style-type: none">Off: The speed mode is not selected.Steady on: The speed mode is selected. In this mode, service port indicators show port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator	Green	<p>If you are not changing the indicator mode (default state):</p> <ul style="list-style-type: none">Off: The switch is the standby or slave switch in a stack or a standalone switch with the stacking function disabled.Blinking: The switch is the master switch in a stack or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">Off: The stack mode is not selected.Steady on: The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator/ Button	Color	Description
7	MODE: mode switch button	-	<ul style="list-style-type: none"> • When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. • When you press the button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press the button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	Service port indicator (one indicator for each port)		Meanings of service port indicators vary in different modes. For details, see Table 4-162 .
9	ETH port indicator	Green	<ul style="list-style-type: none"> • Off: The ETH management port is not connected. • Steady on: The ETH management port is connected. • Blinking: The port is sending or receiving data.
10	USB-based deployment indicator	-	<p>Off:</p> <ul style="list-style-type: none"> • No USB flash drive is connected to the switch. • The USB port is damaged. • The indicator is damaged. • The USB flash drive does not have any configuration file and cannot be used for deployment. • The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator/ Button	Color	Description
		Green	<ul style="list-style-type: none"> Steady on: A USB-based deployment has been completed. Blinking: The system is reading data from a USB flash drive.
		Yellow	Steady on: The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
		Red	Blinking: An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-162 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.

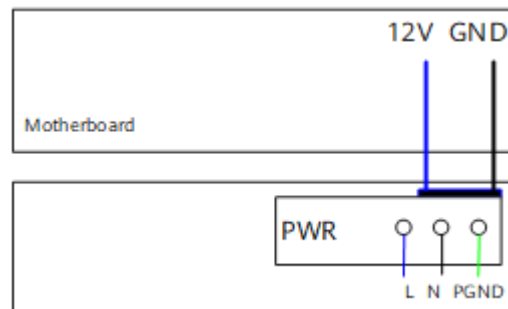
Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700S-52X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 4-63 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-63 Power supply mode of a built-in AC power module



L: live wire

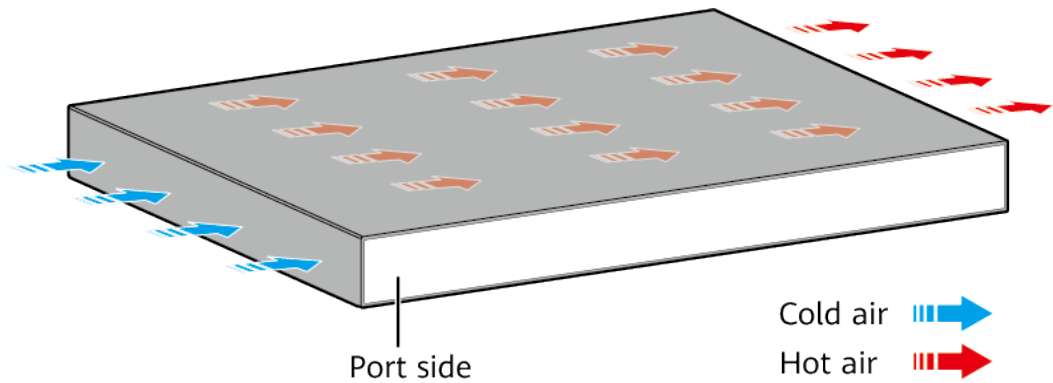
N: neutral wire

PGND: protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5700S-52X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-163 lists technical specifications of the S5700S-52X-LI-AC.

Table 4-163 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	86.64 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	5 kg (11.02 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	54.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	34.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350HED

4.6 S5700-LI-BAT

NOTE

The S5700-28P-LI-BAT and S5700-28P-LI-24S-BAT support internal batteries. For details about the two models, see the *S5700-LI-BAT Hardware Installation and Maintenance Guide*.

4.6.1 S5700-28P-LI-BAT

Version Mapping

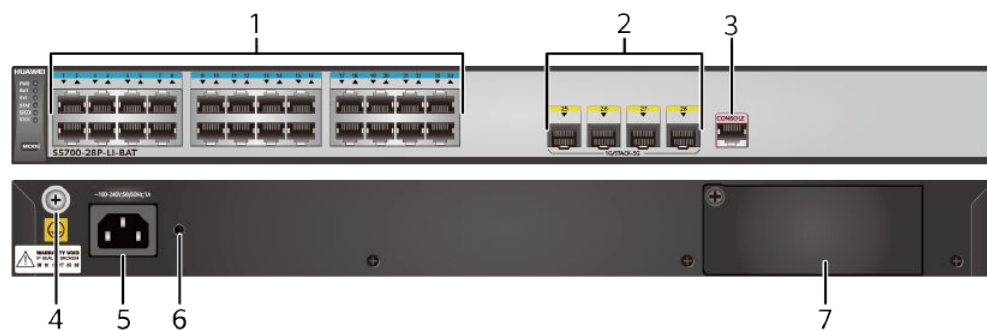
Table 4-164 lists the mapping between the S5700-28P-LI-BAT chassis and software versions.

Table 4-164 Version mapping

Series	Model	Software Version
S5700-LI-BAT	S5700-28P-LI-BAT	V200R003C02 to V200R012C00 versions NOTE This model does not match V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-64 S5700-28P-LI-BAT appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	One console port	4	Ground screw NOTE It is used with a ground cable .
5	AC socket NOTE It is used with an AC power cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	Battery slot NOTE Applicable battery modules or power modules: <ul style="list-style-type: none"> • BAT-4AHA rechargeable lithium ion battery module • BAT-8AHA rechargeable lithium ion battery module • PBB-12AHA lead-acid battery charger module (requiring external lead-acid batteries) • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-165** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-165 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-166](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-166 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-167](#).

Table 4-167 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-65 Indicators on the S5700-28P-LI-BAT

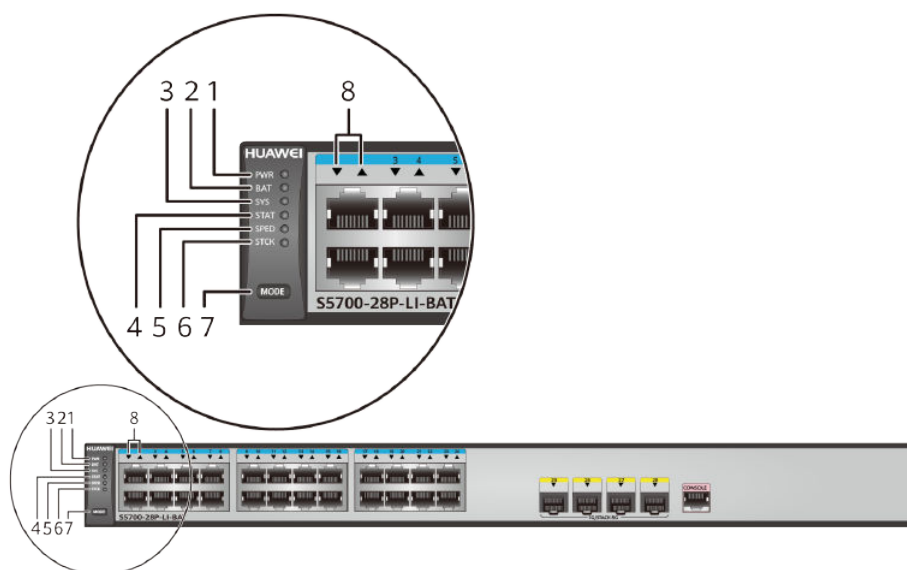


Table 4-168 Description of indicators on the S5700-28P-LI-BAT

No.	Indicator/ Button	Color	Description
1	PWR: power supply indicator	-	Off: The switch is not powered on.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power supply has failed, and the switch is powered by a backup power supply.
2	BAT: battery indicator	-	Off: <ul style="list-style-type: none"> No lithium battery is working. No lead-acid battery charger module is working. No power module is working.
		Green	<ul style="list-style-type: none"> Steady on: The lithium battery, lead-acid battery, or power module is working normally. Fast blinking: The lithium battery is supplying power to the switch. Slow blinking: The switch is charging the lithium battery.
		Yellow	<p>Steady on:</p> <ul style="list-style-type: none"> The lithium battery does not work normally. The output of the lead-acid battery is abnormal. No lead-acid battery is connected to the lead-acid battery charger module. The power module does not work normally. <p>Blinking: The lithium battery software is upgrading. (This indicator state is available in V200R005C00 and later versions.)</p>
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is running normally.

No.	Indicator/ Button	Color	Description
		Red	Steady on: The system is not running normally or has generated a temperature or fan alarm.
4	STAT: status indicator	Green	<ul style="list-style-type: none">Off: The status mode is not selected.Steady on: The service port indicators are in the status mode (default).
5	SPED: speed indicator	Green	<ul style="list-style-type: none">Off: The speed mode is not selected.Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator	-	Off NOTE The S5700-LI-BAT series switches do not support the stacking feature. This indicator is reserved for future use.
7	MODE: mode switch button	-	<ul style="list-style-type: none">When you press this button once, the SPED indicator turns green, and the service port indicators show the speed of each service port.When you press the button a second time, the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and STCK indicator are off.</p>

No.	Indicator/ Button	Color	Description
8	Service port indicator <ul style="list-style-type: none"> • GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1. • GE optical ports: Each optical port has a corresponding indicator above it. 		Meanings of service port indicators vary in different modes. For details, see Table 4-169 .

Table 4-169 Description of service port indicators in different modes

Mode	Color	Description
Status mode	Green	<ul style="list-style-type: none"> • Off: The port is not connected or has been shut down. • Steady on: The port is connected. • Blinking: The port is sending or receiving data.
Speed mode	Green	<ul style="list-style-type: none"> • Off: The port is not connected or has been shut down. • Steady on: The port is operating at 10/100 Mbit/s. • Blinking: The port is operating at 1000 Mbit/s.

Power Supply Configuration

The S5700-28P-LI-BAT switch has a built-in AC power supply unit and can use a pluggable power module or battery for power redundancy. Power modules and batteries for the S5700-28P-LI-BAT switch are hot swappable.

Battery module configuration

The battery installed on an S5700-28P-LI-BAT switch can automatically supply power to the switch in case of a mains power outage, ensuring uninterrupted services. When the AC power supply recovers, the battery turns to the charging state.

The S5700-28P-LI-BAT switch supports the following batteries and battery charger module:

- BAT-4AHA (chargeable lithium battery)
- BAT-8AHA (chargeable lithium battery)
- PBB-12AHA (12AH lead-acid battery charger module)

 **NOTE**

The PBB-12AHA module must connect to a lead-acid battery with 12AH of rated capacity.

The S5700-28P-LI-BAT switch can be configured with a battery to prevent service interruption caused by mains power outages. [Table 4-170](#) lists the power supply time of the batteries.

Table 4-170 Battery configuration

Battery	Power Supply Time
BAT-4AHA	<ul style="list-style-type: none">• The switch works with the maximum power consumption and the battery is fully charged: 2.4 hours• The switch has 70% of ports in Up state, each port transmits 10% of maximum traffic and has the EEE function enabled, and the battery is fully charged: 4.1 hours• The switch works with the minimum power consumption (no port is working) and the battery is fully charged: 5.6 hours
BAT-8AHA	<ul style="list-style-type: none">• The switch works with the maximum power consumption and the battery is fully charged: 4.8 hours• The switch has 70% of ports in Up state, each port transmits 10% of maximum traffic and has the EEE function enabled, and the battery is fully charged: 8.2 hours• The switch works with the minimum power consumption (no port is working) and the battery is fully charged: 11.2 hours

NOTE

The power supply time shortens when a battery has been used for a long time.

Battery module configuration

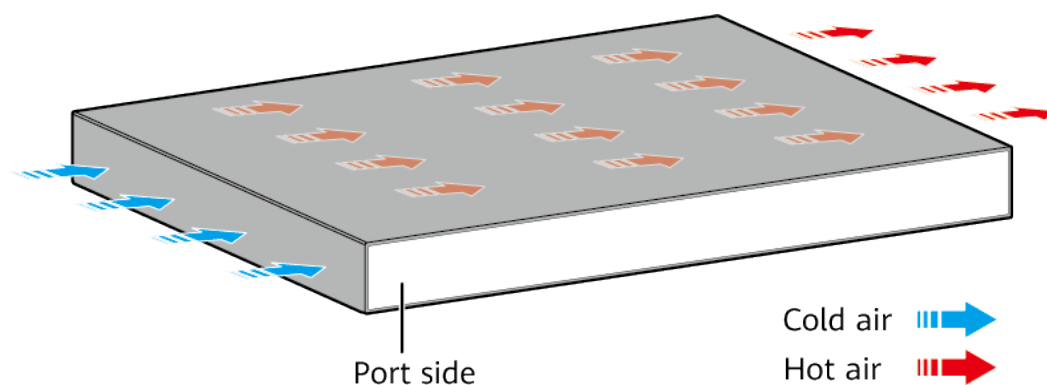
The S5700-28P-LI-BAT switch can be configured with a power module as a backup of the built-in power supply unit to improve power reliability.

The S5700-28P-LI-BAT switch supports the following power modules:

- 150 W AC power module
- 150 W DC power module

Heat Dissipation

The S5700-28P-LI-BAT has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-171 lists technical specifications of the S5700-28P-LI-BAT.

Table 4-171 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	57.9 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999

Item	Description
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Built-in AC or using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	3.4 kg (7.5 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	23 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	22.7 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	<ul style="list-style-type: none"> Pluggable modules not configured: -40°C to +70°C (-40°F to +158°F) Power modules configured: -40°C to +70°C (-40°F to +158°F) Lithium battery modules configured: -20°C to +60°C (-4°F to +140°F) Lead-acid battery modules configured: The storage temperature is determined according to the storage environment of lead-acid batteries.
Noise under normal temperature (27°C, sound power)	< 43.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> DC power modules configured: 0-2000 m (0-6562 ft.) AC power modules or battery modules configured: 0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010509

4.6.2 S5700-28P-LI-24S-BAT

Version Mapping

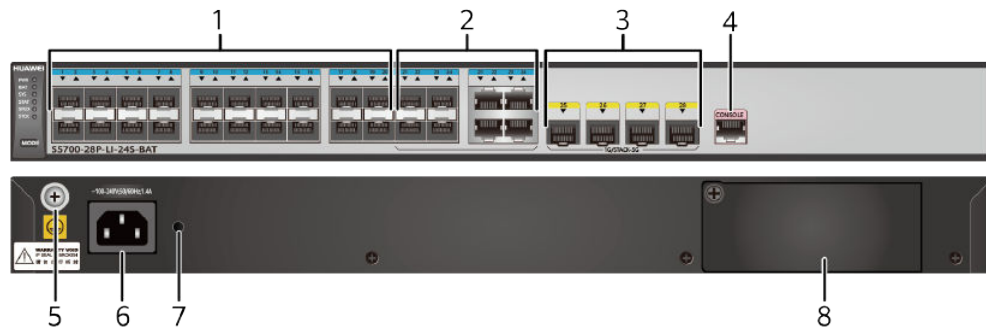
Table 4-172 lists the mapping between the S5700-28P-LI-24S-BAT chassis and software versions.

Table 4-172 Version mapping

Series	Model	Software Version
S5700-LI-BAT	S5700-28P-LI-24S-BAT	V200R003C02 to V200R012C00 versions NOTE This model does not match V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 4-66 S5700-28P-LI-24S-BAT appearance



1	Twenty 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	AC socket NOTE It is used with an AC power cable .

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	Battery slot NOTE Applicable battery modules or power modules: <ul style="list-style-type: none">• BAT-4AHA rechargeable lithium ion battery module• BAT-8AHA rechargeable lithium ion battery module• PBB-12AHA lead-acid battery charger module (requiring external lead-acid batteries)• 150 W AC power module• 150 W DC power module
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Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-173](#) describes the attributes of a 100/1000BASE-X port.

Table 4-173 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-174](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-174 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-175](#).

Table 4-175 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

The S5700-28P-LI-24S-BAT has the same types of indicators as the S5700-28P-LI-BAT. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28P-LI-24S-BAT switch has a built-in AC power supply unit and can use a pluggable power module or battery for power redundancy. Power modules and batteries for the S5700-28P-LI-24S-BAT switch are hot swappable.

Battery module configuration

The battery installed on an S5700-28P-LI-24S-BAT switch can automatically supply power to the switch in case of a mains power outage, ensuring uninterrupted services. When the AC power supply recovers, the battery turns to the charging state.

The S5700-28P-LI-24S-BAT switch supports the following batteries and battery charger module:

- BAT-4AHA (chargeable lithium battery)
- BAT-8AHA (chargeable lithium battery)
- PBB-12AHA (12AH lead-acid battery charger module)

NOTE

The PBB-12AHA module must connect to a lead-acid battery with 12AH of rated capacity.

The S5700-28P-LI-24S-BAT switch can be configured with a battery to prevent service interruption caused by mains power outages. [Table 4-176](#) lists the power supply time of the batteries.

Table 4-176 Battery configuration

Battery	Power Supply Time
BAT-4AHA	<ul style="list-style-type: none"> • The switch works with the maximum power consumption and the battery is fully charged: 1.2 hours • The switch has 70% of ports in Up state, each port transmits 10% of maximum traffic, and the battery is fully charged: 2.1 hours • The switch works with the minimum power consumption (no port is working) and the battery is fully charged: 4.1 hours
BAT-8AHA	<ul style="list-style-type: none"> • The switch works with the maximum power consumption and the battery is fully charged: 2.3 hours • The switch has 70% of ports in Up state, each port transmits 10% of maximum traffic, and the battery is fully charged: 4.2 hours • The switch works with the minimum power consumption (no port is working) and the battery is fully charged: 8.3 hours

 **NOTE**

The power supply time shortens when a battery has been used for a long time.

Battery module configuration

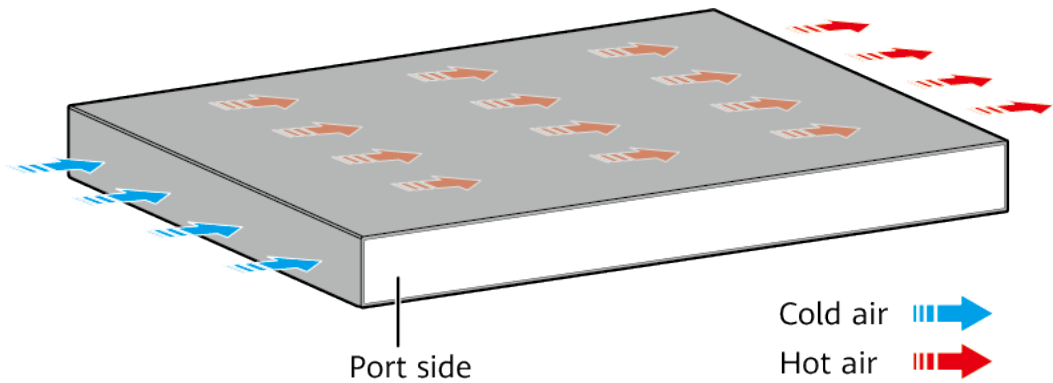
The S5700-28P-LI-24S-BAT switch can be configured with a power module as a backup of the built-in power supply unit to improve power reliability.

The S5700-28P-LI-24S-BAT switch supports the following power modules:

- 150 W AC power module
- 150 W DC power module

Heat Dissipation

The S5700-28P-LI-24S-BAT has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-177 lists technical specifications of the S5700-28P-LI-24S-BAT.

Table 4-177 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	45
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Built-in AC or using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	3.6 kg (7.94 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	34.1 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	33.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	<ul style="list-style-type: none"> • Pluggable modules not configured: -40°C to +70°C (-40°F to +158°F) • Power modules configured: -40°C to +70°C (-40°F to +158°F) • Lithium battery modules configured: -20°C to +60°C (-4°F to +140°F) • Lead-acid battery modules configured: The storage temperature is determined according to the storage environment of lead-acid batteries.
Noise under normal temperature (27°C, sound power)	< 46.1 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	<ul style="list-style-type: none"> DC power modules configured: 0-2000 m (0-6562 ft.) AC power modules or battery modules configured: 0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010511

4.7 S5710-LI

4.7.1 S5710-28C-LI

Version Mapping

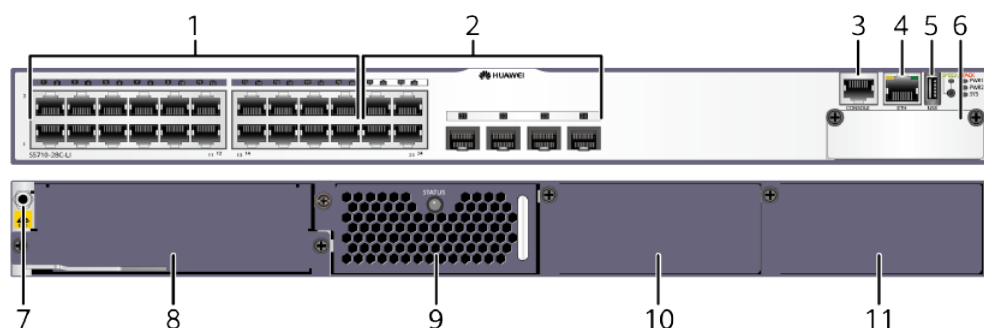
Table 4-178 lists the mapping between the S5710-28C-LI chassis and software versions.

Table 4-178 Version mapping

Series		Model	Software Version
S5710-LI	S5710-C-LI	S5710-28C-LI	V200R001C00 only

Appearance and Structure

Figure 4-67 S5710-28C-LI appearance



1	Twenty 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	Front card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) • 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
7	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	8	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.30 ES5D00ETPC00 (Stack Rear Card) • 8.31 ES5D00ETPB00 (Extended Rear Card)
9	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	10	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
11	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-179](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-179 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-180](#).

Table 4-180 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 4-181** describes the attributes of an ETH management port.

Table 4-181 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

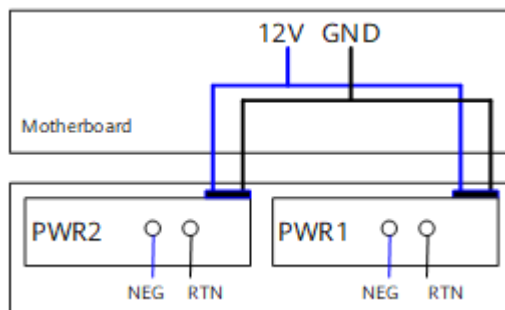
The S5710-28C-LI has the same types of indicators as the S5700-28C-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-28C-LI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. The switch cannot use AC and DC power modules simultaneously.

Figure 4-68 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-68 Power supply connections of dual DC power modules



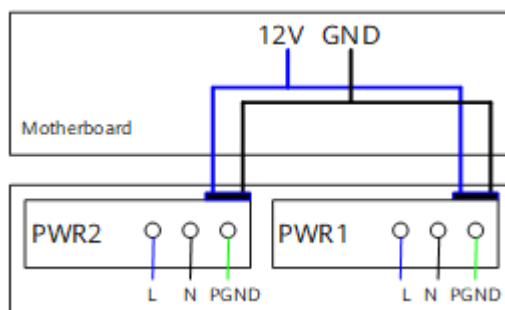
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-69 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-69 Power supply connections of dual AC power modules



L: Live wire

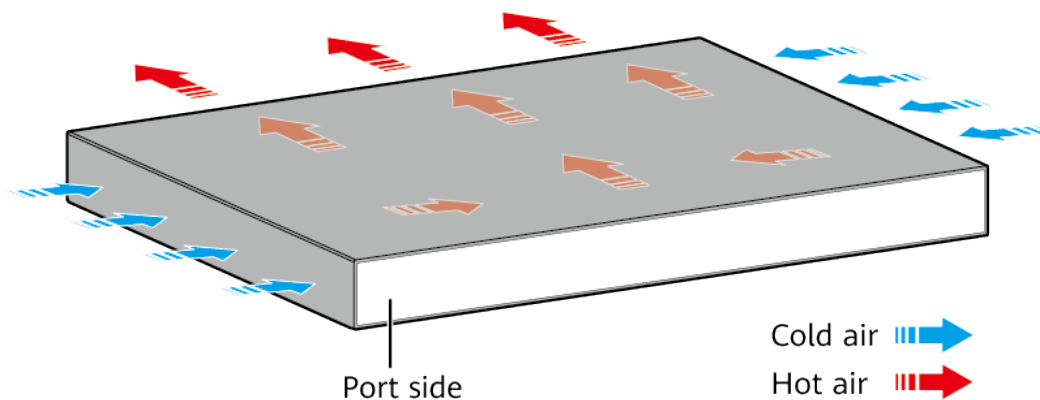
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5710-28C-LI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-182 lists technical specifications of the S5710-28C-LI.

Table 4-182 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	53.7 years when a 2-port 10GE interface card is configured, 74.9 years when a 4-port GE front card is configured, 29.58 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)

Item	Description
Weight	<ul style="list-style-type: none"> • Empty: ≤ 5 kg (11.02 lb) • Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	56 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354139

4.7.2 S5710-28C-PWR-LI

Version Mapping

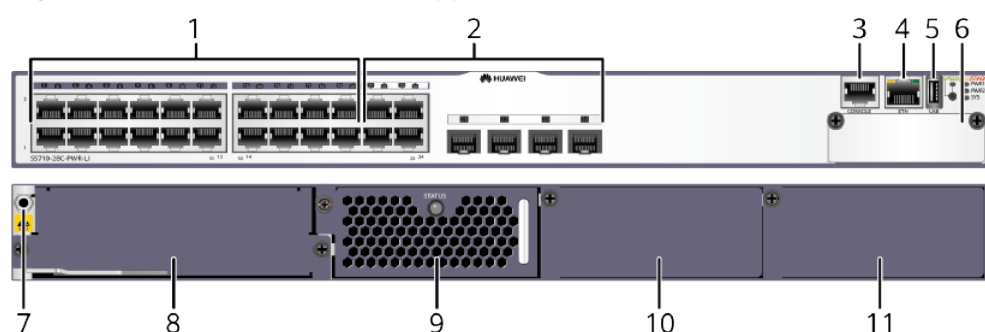
Table 4-183 lists the mapping between the S5710-28C-PWR-LI chassis and software versions.

Table 4-183 Version mapping

Series		Model	Software Version
S5710-LI	S5710-C-LI	S5710-28C-PWR-LI	V200R001C00 only

Appearance and Structure

Figure 4-70 S5710-28C-PWR-LI appearance



1	Twenty PoE+ 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	Front card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) • 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)

7	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	8	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.30 ES5D00ETPC00 (Stack Rear Card) 8.31 ES5D00ETPB00 (Extended Rear Card)
9	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	10	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module
11	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-184](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-184 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or

an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-185](#).

Table 4-185 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the

Configuration Guide - Basic Configurations. [Table 4-186](#) describes the attributes of an ETH management port.

Table 4-186 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5710-28C-PWR-LI has the same types of indicators as the S5700-28C-PWR-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-28C-PWR-LI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 4-187](#) lists its power supply configurations.

Table 4-187 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	-	123.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 8802.3at (30 W per port): 4

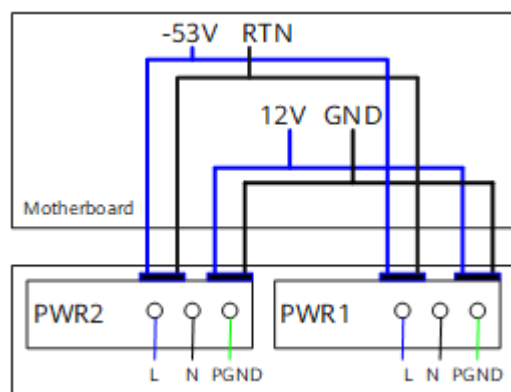
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 8
500 W	500 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-71 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

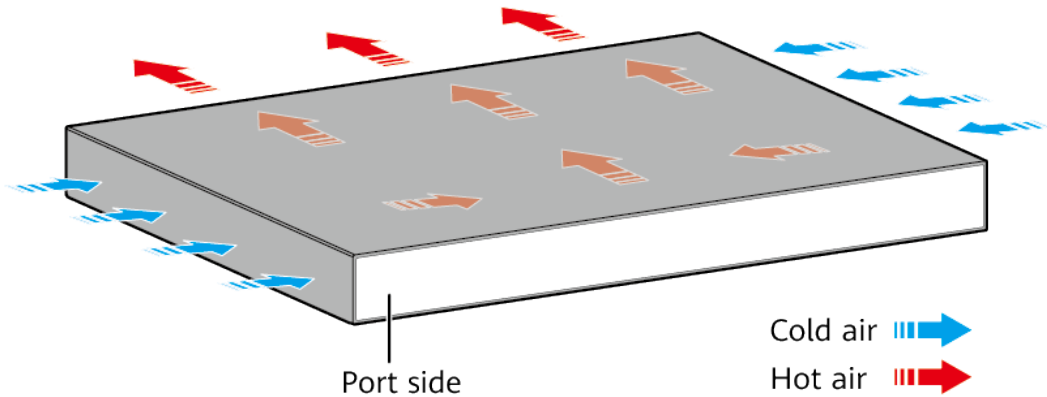
Figure 4-71 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5710-28C-PWR-LI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-188 lists technical specifications of the S5710-28C-PWR-LI.

Table 4-188 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	53.6 years when a 2-port 10GE interface card is configured, 74.6 years when a 4-port GE front card is configured, 25.68 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card

Item	Description
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	836 W (system power consumption: 96 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	02354136

4.7.3 S5710-52C-LI

Version Mapping

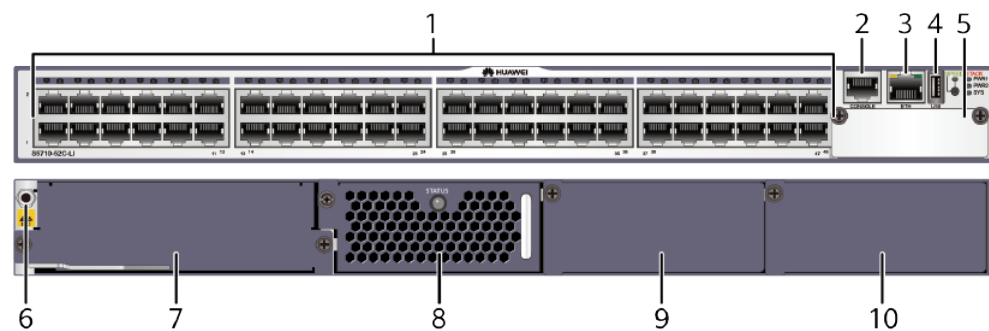
Table 4-189 lists the mapping between the S5710-52C-LI chassis and software versions.

Table 4-189 Version mapping

Series		Model	Software Version
S5710-LI	S5710-C-LI	S5710-52C-LI	V200R001C00 only

Appearance and Structure

Figure 4-72 S5710-52C-LI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	One console port
3	One ETH management port	4	One USB port
5	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 8.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card) 	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.30 ES5D00ETPC00 (Stack Rear Card) 8.31 ES5D00ETPB00 (Extended Rear Card) 	8	Fan slot NOTE Applicable fan module: CX7E1FANA fan module

9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-190](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-190 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-191](#).

Table 4-191 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 4-192** describes the attributes of an ETH management port.

Table 4-192 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

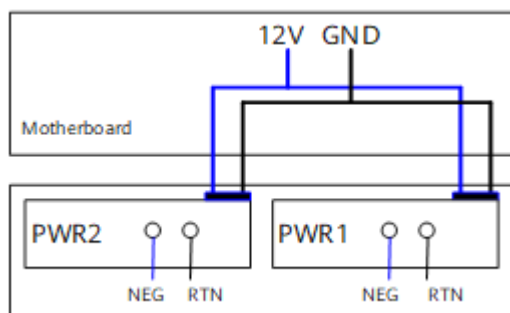
The S5710-52C-LI has the same types of indicators as the S5700-28C-SI. For details, see **Indicator Description**.

Power Supply Configuration

The S5710-52C-LI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. The switch cannot use AC and DC power modules simultaneously.

Figure 4-73 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-73 Power supply connections of dual DC power modules



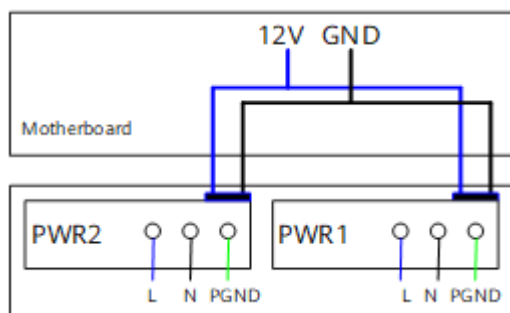
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-74 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-74 Power supply connections of dual AC power modules



L: Live wire

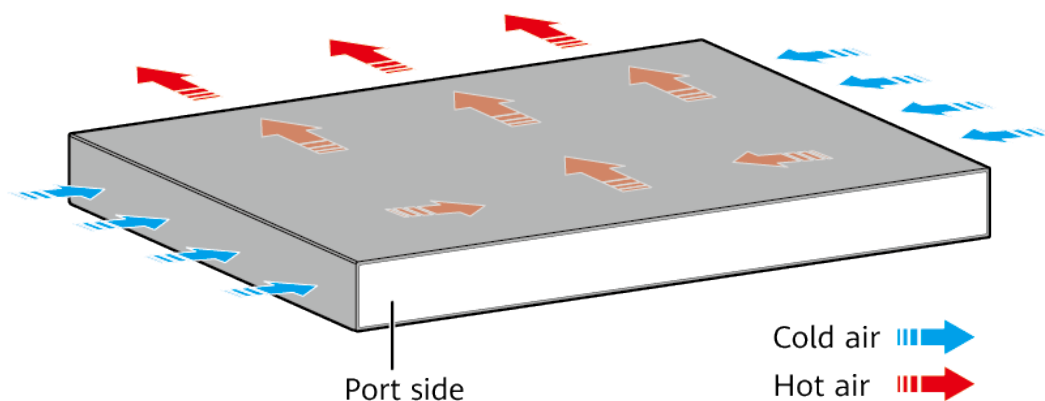
N: Neutral wire



PGND: Protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5710-52C-LI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



Cold air 
 Hot air 

 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-193 lists technical specifications of the S5710-52C-LI.

Table 4-193 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	51.3 years when a 2-port 10GE interface card is configured, 70.3 years when a 4-port GE front card is configured, 28.58 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	78 W

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02354138

4.7.4 S5710-52C-PWR-LI

Version Mapping

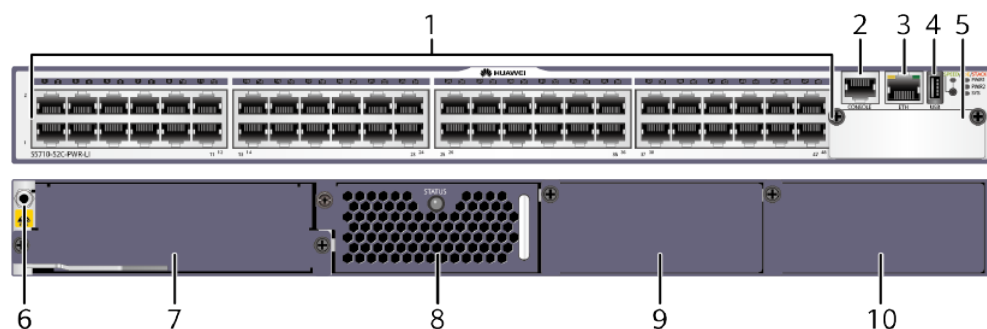
Table 4-194 lists the mapping between the S5710-52C-PWR-LI chassis and software versions.

Table 4-194 Version mapping

Series		Model	Software Version
S5710-LI	S5710-C-LI	S5710-52C-PWR-LI	V200R001C00 only

Appearance and Structure

Figure 4-75 S5710-52C-PWR-LI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	One console port
3	One ETH management port	4	One USB port
5	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 8.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card) 	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.30 ES5D00ETPC00 (Stack Rear Card) 8.31 ES5D00ETPB00 (Extended Rear Card) 	8	Fan slot NOTE Applicable fan module: CX7E1FANA fan module
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-195](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-195 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-196](#).

Table 4-196 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-197](#) describes the attributes of an ETH management port.

Table 4-197 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5710-52C-PWR-LI has the same types of indicators as the S5700-28C-PWR-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-52C-PWR-LI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 4-198](#) lists its power supply configurations.

Table 4-198 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	–	123.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 4
500 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 8

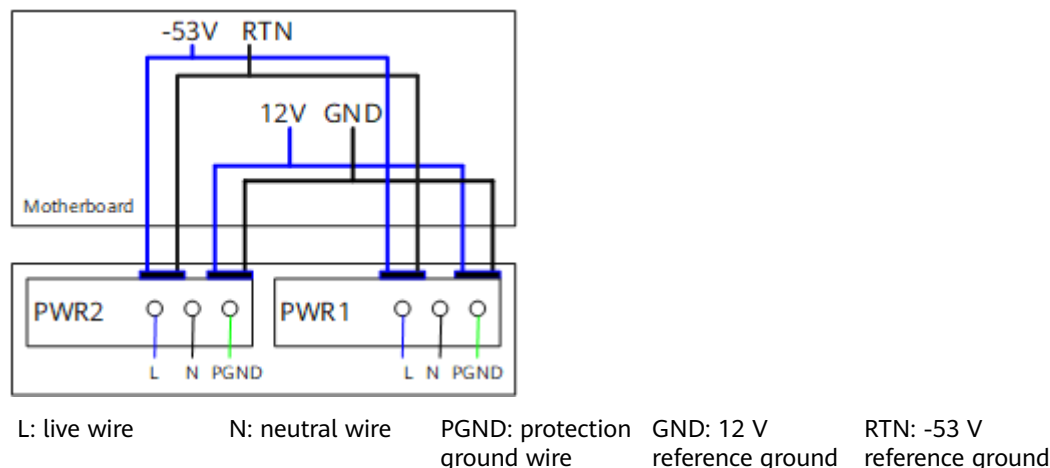
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W	500 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

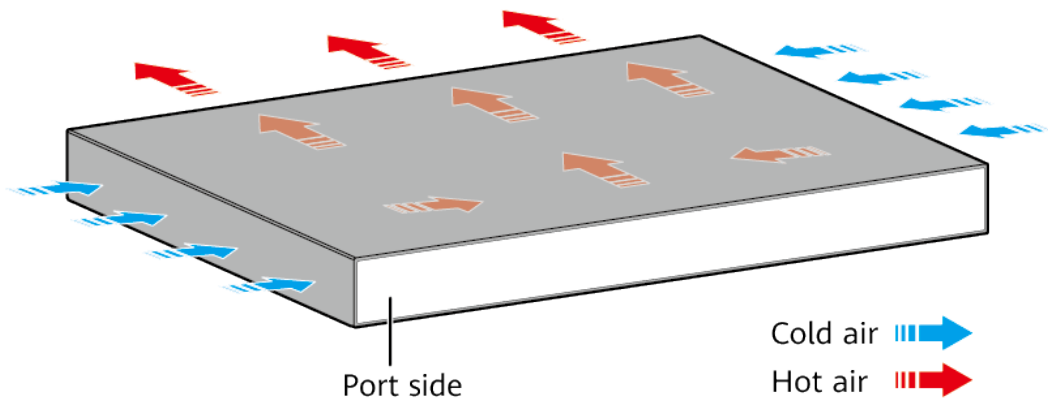
Figure 4-76 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 4-76 Power supply by dual AC PoE power modules



Heat Dissipation

The S5710-52C-PWR-LI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-199 lists technical specifications of the S5710-52C-PWR-LI.

Table 4-199 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	50.4 years when a 2-port 10GE interface card is configured, 68.6 years when a 4-port GE front card is configured, 35.58 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	917 W (system power consumption: 177 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02354134

4.7.5 S5710-28X-LI-AC

Version Mapping

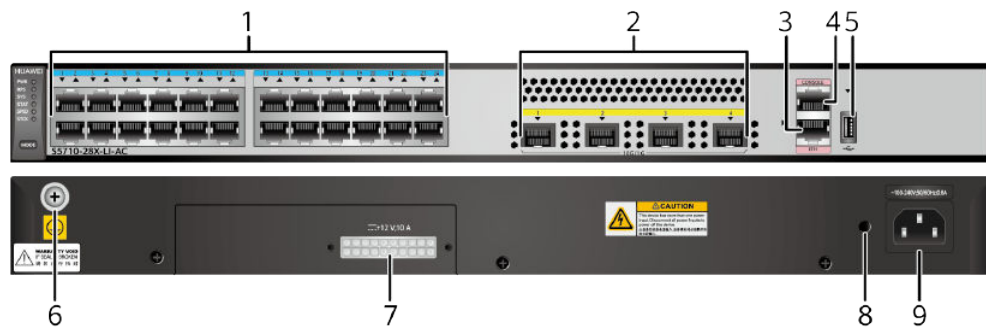
[Table 4-200](#) lists the mapping between the S5710-28X-LI-AC chassis and software versions.

Table 4-200 Version mapping

Series		Model	Software Version
S5710-LI	S5710-X-LI	S5710-28X-LI-AC	V200R008C00 to V200R012C00 versions

Appearance and Structure

Figure 4-77 S5710-28X-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • GPON optical module (applicable in V200R012C00 version) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-201](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-201 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-202](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-202 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 4-203](#).

Table 4-203 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-204](#) describes the attributes of an ETH management port.

Table 4-204 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

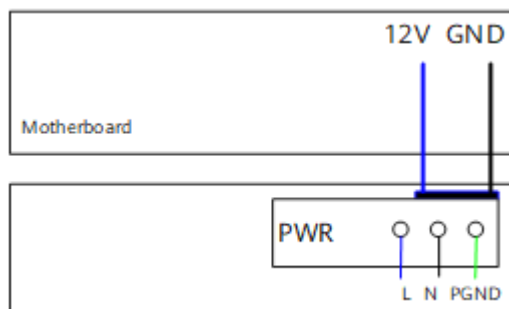
The S5710-28X-LI-AC has the same types of indicators as the S5700S-52X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-28X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 4-78 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-78 Power supply mode of a built-in AC power module



L: live wire

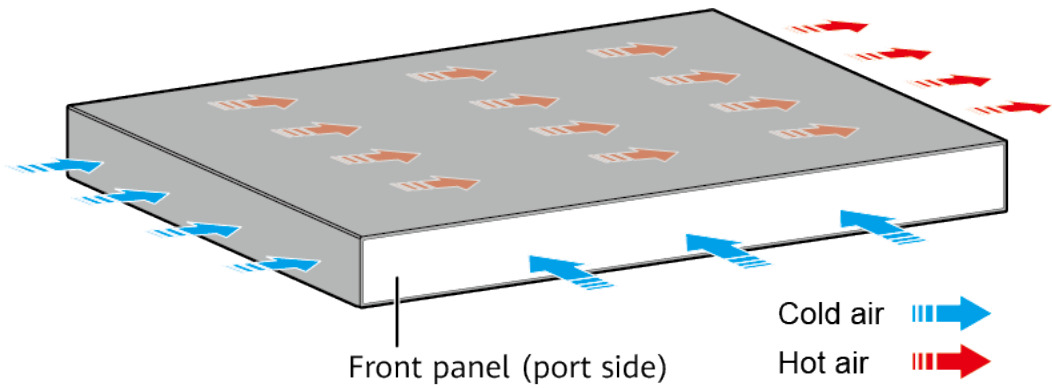
N: neutral wire

PGND: protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5710-28X-LI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-205 lists technical specifications of the S5710-28X-LI-AC.

Table 4-205 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	100.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	4.8 kg (10.58 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	32 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	22 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350GEM

4.7.6 S5710-52X-LI-AC

Version Mapping

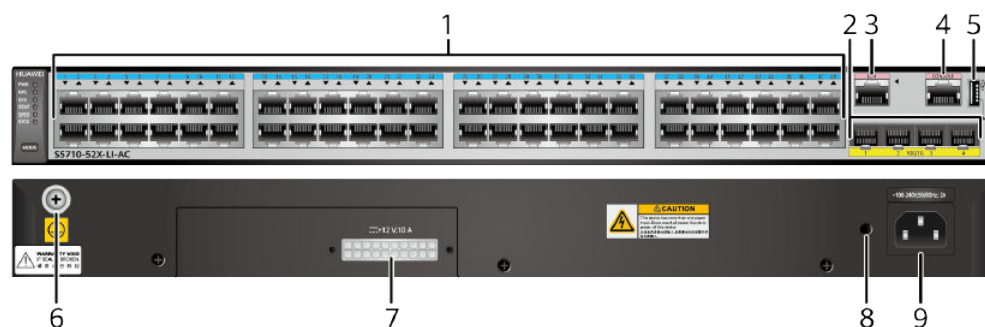
Table 4-206 lists the mapping between the S5710-52X-LI-AC chassis and software versions.

Table 4-206 Version mapping

Series		Model	Software Version
S5710-LI	S5710-X-LI	S5710-52X-LI-AC	V200R008C00 to V200R012C00 versions

Appearance and Structure

Figure 4-79 S5710-52X-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • GPON optical module (applicable in V200R012C00 version) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket NOTE It is used with an AC power cable .	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-207](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-207 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-208](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-208 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 4-209](#).

Table 4-209 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-210](#) describes the attributes of an ETH management port.

Table 4-210 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

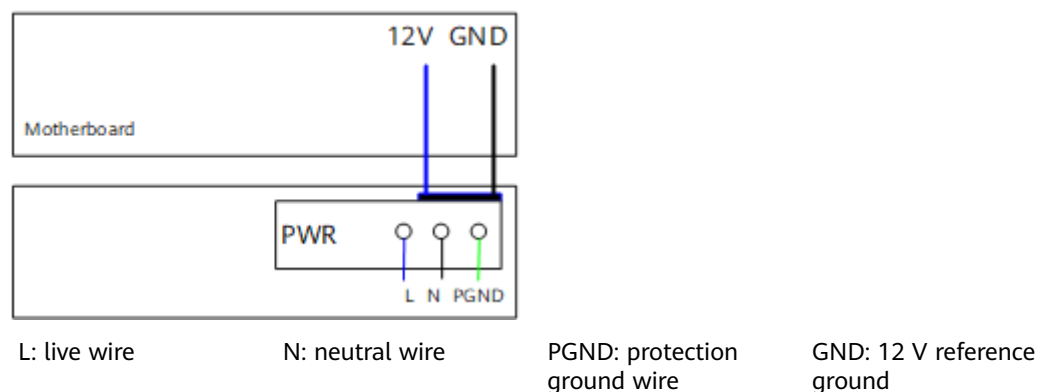
The S5710-52X-LI-AC has the same types of indicators as the S5700S-52X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-52X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

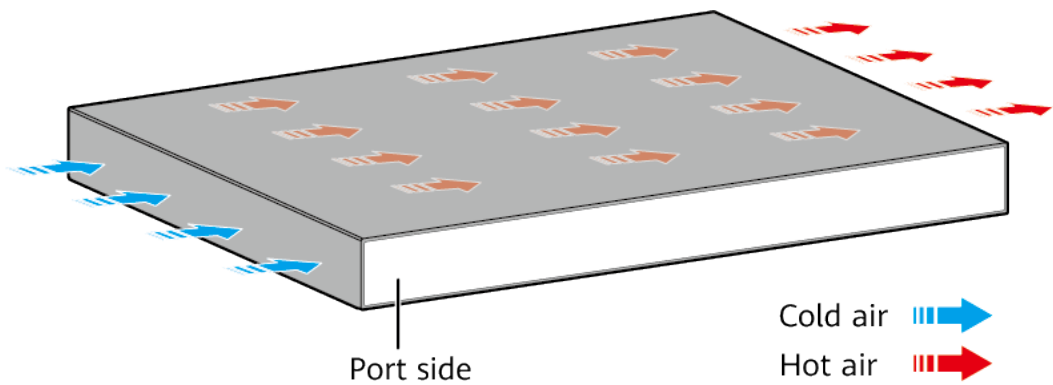
Figure 4-80 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-80 Power supply mode of a built-in AC power module



Heat Dissipation

The S5710-52X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-211 lists technical specifications of the S5710-52X-LI-AC.

Table 4-211 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	86.64 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	5 kg (11.02 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	54.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	34.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350GEN

4.8 S5720-LI

4.8.1 S5720-12TP-LI-AC

Version Mapping

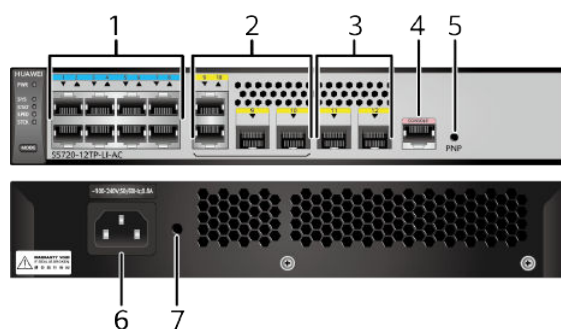
Table 4-212 lists the mapping between the S5720-12TP-LI-AC chassis and software versions.

Table 4-212 Version mapping

Series	Model	Software Version
S5720-LI	S5720-12TP-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-81 S5720-12TP-LI-AC appearance



1	Eight 10/100/1000BASE-T ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km)
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3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	<p>One console port</p>
5	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-213](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-213 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission

speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-214](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-214 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-215](#).

Table 4-215 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-82 Indicators on the S5720-12TP-LI-AC

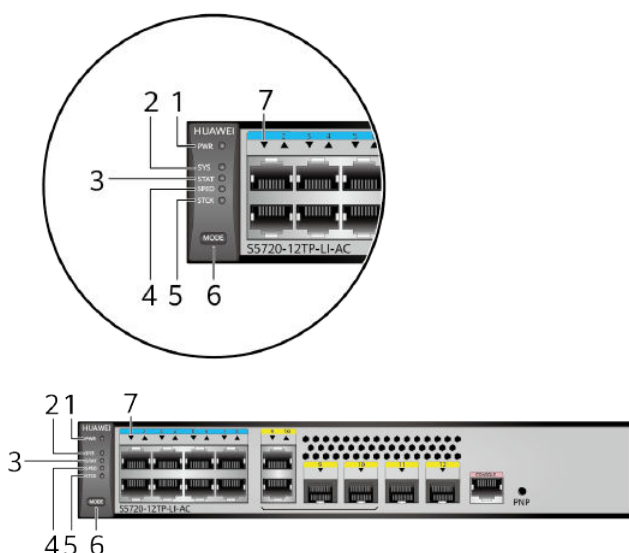


Table 4-216 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
			Yellow or red	Steady on	The built-in power module has failed.

No.	Indicator	Name	Color	Status	Description
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
3	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
6	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
7	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-217 .		

Table 4-217 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: The port is connected. Blinking: The port is sending or receiving data.
Speed	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. Blinking: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 1000 Mbit/s.

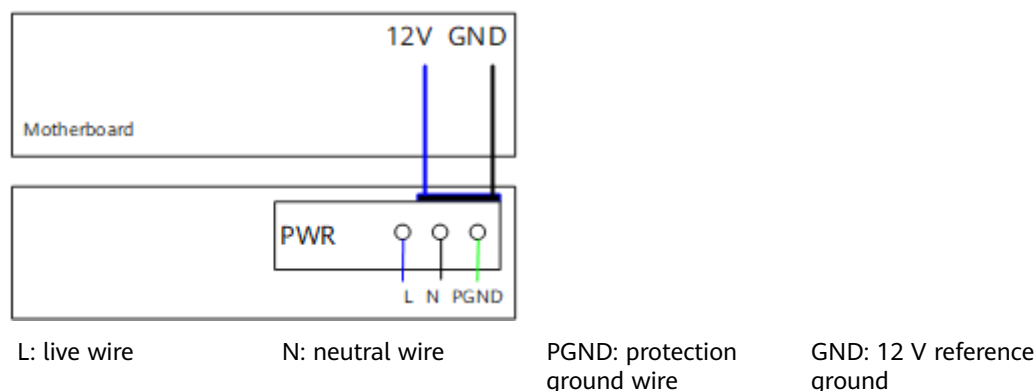
Display Mode	Color	Description
Stack	Green	<p>Off: Port indicators do not show the stack ID of the switch.</p> <p>If the indicator is steady on, the switch is not a master switch:</p> <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0. <p>If the indicator is blinking, the switch is a master switch:</p> <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-12TP-LI-AC has a built-in power module and does not support pluggable power modules.

Figure 4-83 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-83 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-12TP-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-218 lists technical specifications of the S5720-12TP-LI-AC.

Table 4-218 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	23.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.8 in. x 7.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 186.7 mm (1.72 in. x 9.8 in. x 7.35 in.)
Weight (with packaging)	1.8 kg (3.97 lb)
Stack ports	Eight 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	12.85 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	10.39 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010567

4.8.2 S5720-12TP-PWR-LI-AC

Version Mapping

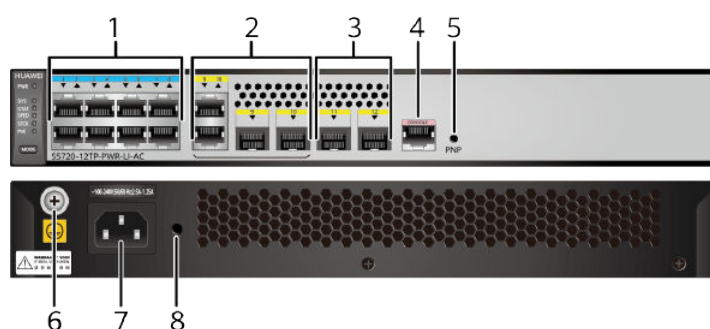
Table 4-219 lists the mapping between the S5720-12TP-PWR-LI-AC chassis and software versions.

Table 4-219 Version mapping

Series	Model	Software Version
S5720-LI	S5720-12TP-PWR-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-84 S5720-12TP-PWR-LI-AC appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km)
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3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	<p>One console port</p>
5	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-220](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-220 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission

speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-221](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-221 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-222](#).

Table 4-222 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-85 Indicators on the S5720-12TP-PWR-LI-AC

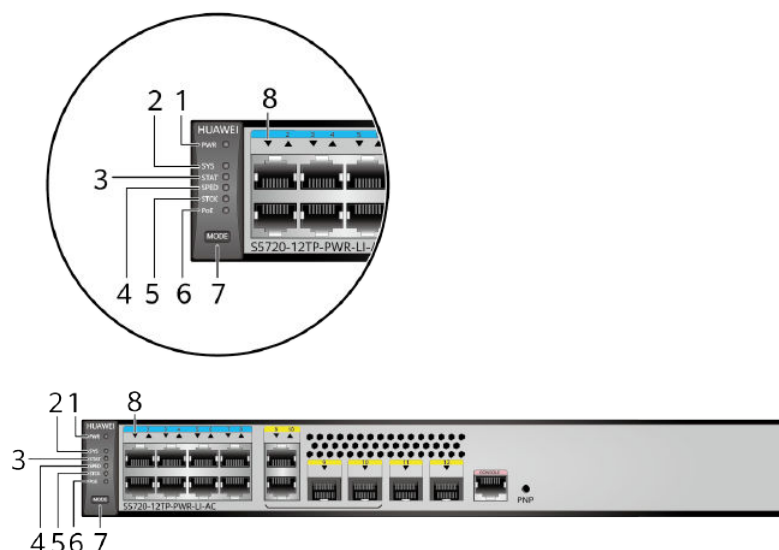


Table 4-223 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
			Yellow or red	Steady on	The built-in power module has failed.

No.	Indicator	Name	Color	Status	Description
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
3	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-224 .		

Table 4-224 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

Display Mode	Color	Status	Description
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

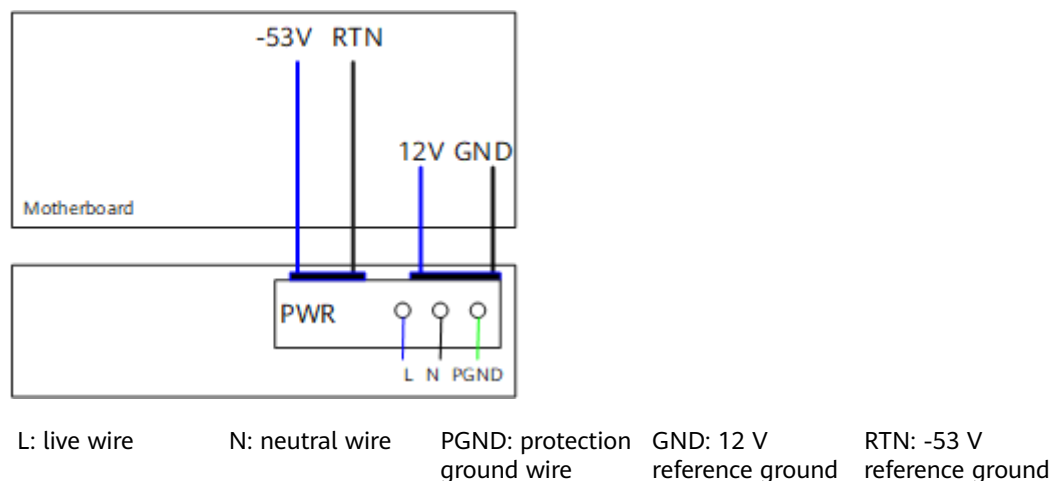
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-12TP-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

Figure 4-86 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-86 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-12TP-PWR-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-225 lists technical specifications of the S5720-12TP-PWR-LI-AC.

Table 4-225 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	23.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 320.0 mm x 220.0 mm (1.72 in. x 12.6 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 320.0 mm x 228.3 mm (1.72 in. x 12.6 in. x 8.99 in.)
Weight (with packaging)	3 kg (6.62 lb)
Stack ports	Eight 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> Not providing the PoE function: 15.61 W 100% PoE loads: 160.5 W (system power consumption: 37.3 W, PoE: 123.2 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	14.57 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010570

4.8.3 S5720-28TP-LI-AC

Version Mapping

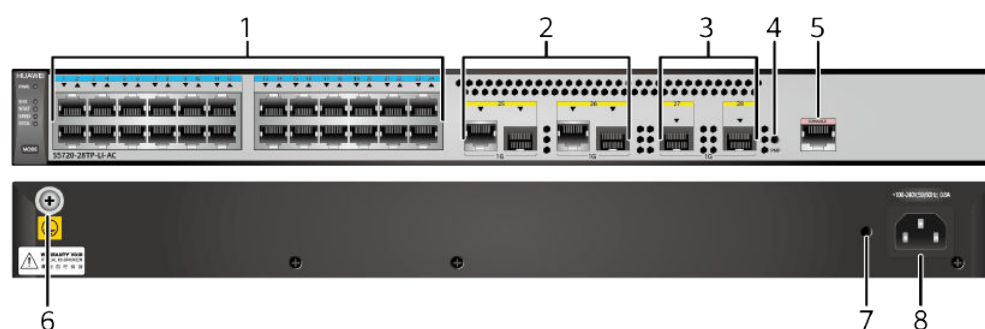
Table 4-226 lists the mapping between the S5720-28TP-LI-AC chassis and software versions.

Table 4-226 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28TP-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-87 S5720-28TP-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> ● FE optical module ● GE optical module (maximum transmission distance ≤ 40 km)
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3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (maximum transmission distance ≤ 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-227](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-227 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-228](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-228 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-229](#).

Table 4-229 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

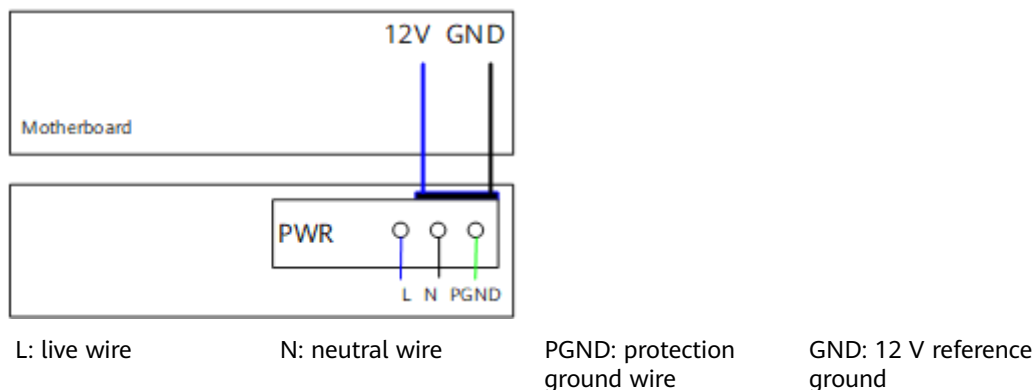
The S5720-28TP-LI-AC has similar indicators to those of the S5720-28TP-PWR-LI-AC except that the S5720-28TP-LI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28TP-LI-AC has a built-in power module and does not support pluggable power modules.

[Figure 4-88](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-88 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-28TP-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-230](#) lists technical specifications of the S5720-28TP-LI-AC.

Table 4-230 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	43 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4 kg (8.82 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	22.1 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	16.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010639

4.8.4 S5720-28TP-PWR-LI-AC

Version Mapping

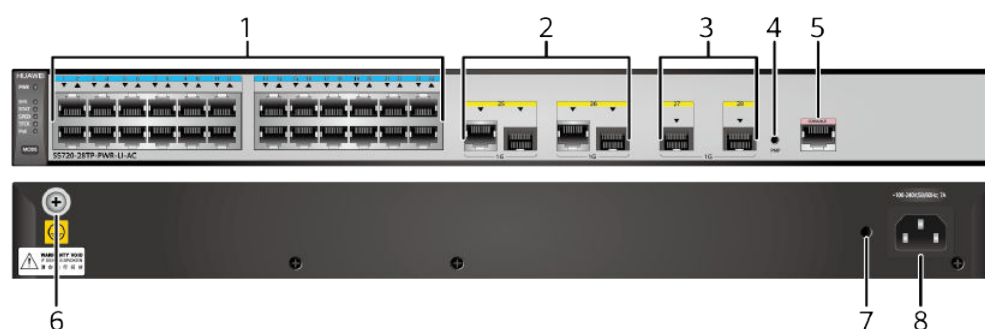
[Table 4-231](#) lists the mapping between the S5720-28TP-PWR-LI-AC chassis and software versions.

Table 4-231 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28TP-PWR-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-89 S5720-28TP-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> ● FE optical module ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module
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3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-232](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-232 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-233](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-233 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-234](#).

Table 4-234 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

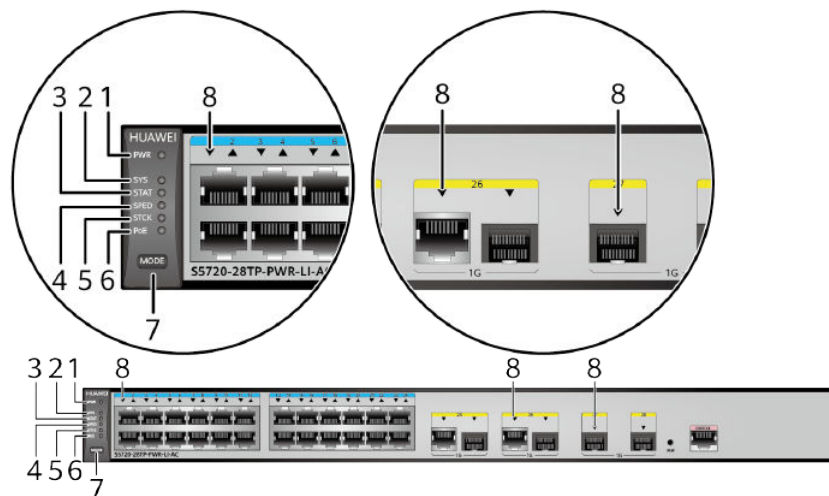
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-90 Indicators on the S5720-28TP-PWR-LI-AC



NOTE

The S5720-LI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 4-235 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
			Yellow or red	Steady on	The built-in power module has failed.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.

No.	Indicator	Name	Color	Status	Description
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
3	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-236 .		

Table 4-236 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

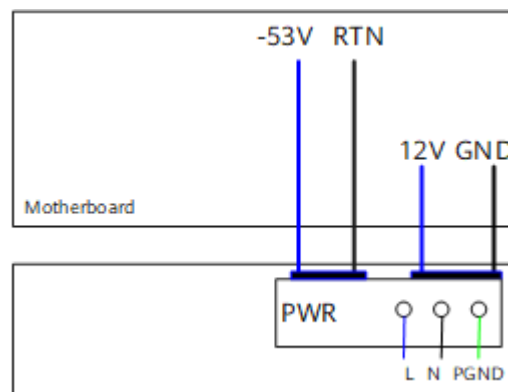
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-28TP-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

Figure 4-91 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-91 Power supply by a built-in AC PoE power module



L: live wire

N: neutral wire

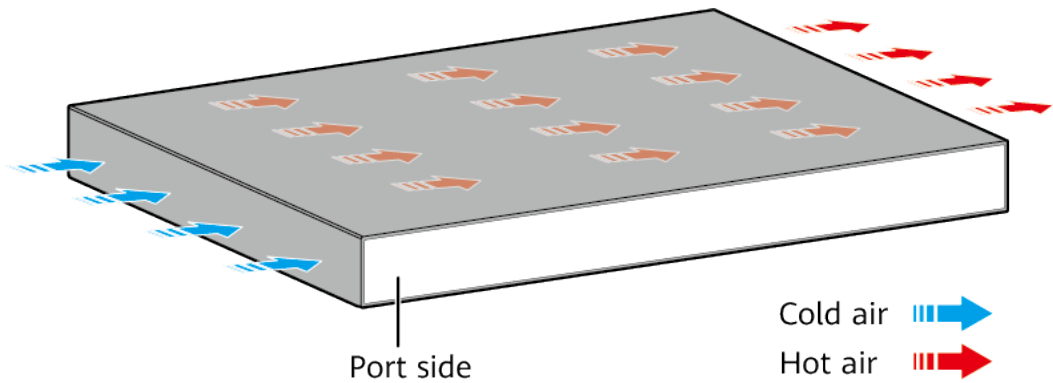
PGND: protection ground wire

GND: 12 V reference ground

RTN: -53 V reference ground

Heat Dissipation

The S5720-28TP-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-237 lists technical specifications of the S5720-28TP-PWR-LI-AC.

Table 4-237 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	40 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.3 kg (11.69 lb)

Item	Description
Stack ports	Twenty-four 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 38.8 W • 100% PoE loads: 444.8 W (system power consumption: 75.2 W, PoE: 369.6 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	27.4 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010637

4.8.5 S5720-28TP-PWR-LI-ACL

Version Mapping

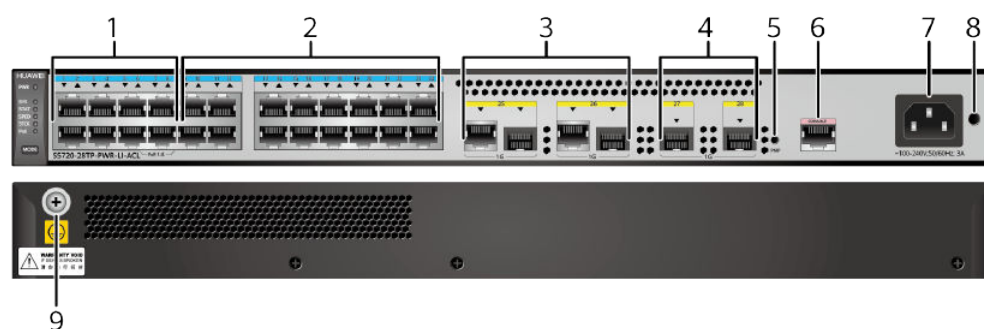
[Table 4-238](#) lists the mapping between the S5720-28TP-PWR-LI-ACL chassis and software versions.

Table 4-238 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28TP-PWR-LI-ACL	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-92 S5720-28TP-PWR-LI-ACL appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	Sixteen 10/100/1000BASE-T ports
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3	<p>Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km) 	4	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
5	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>One console port</p>
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	Ground screw NOTE It is used with a ground cable .	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-239](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-239 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-240](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-240 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-241](#).

Table 4-241 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

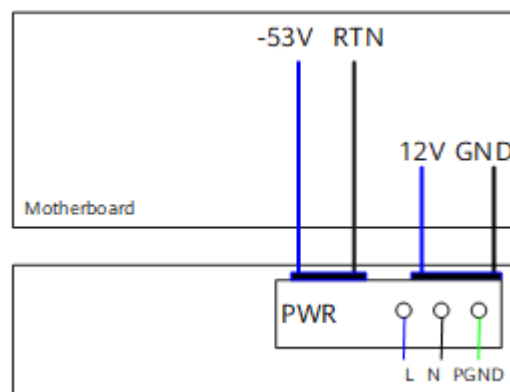
The S5720-28TP-PWR-LI-ACL has the same types of indicators as the S5720-28TP-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28TP-PWR-LI-ACL has a built-in power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

Figure 4-93 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-93 Power supply by a built-in AC PoE power module



L: live wire

N: neutral wire

PGND: protection
ground wire

GND: 12 V
reference ground

RTN: -53 V
reference ground

Heat Dissipation

The S5720-28TP-PWR-LI-ACL has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-242 lists technical specifications of the S5720-28TP-PWR-LI-ACL.

Table 4-242 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	42 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput)	<ul style="list-style-type: none">• Not providing the PoE function: 24.4 W• 100% PoE loads: 165.6 W (system power consumption: 42.4 W, PoE: 123.2 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	19.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010634

4.8.6 S5720-28P-LI-AC

Version Mapping

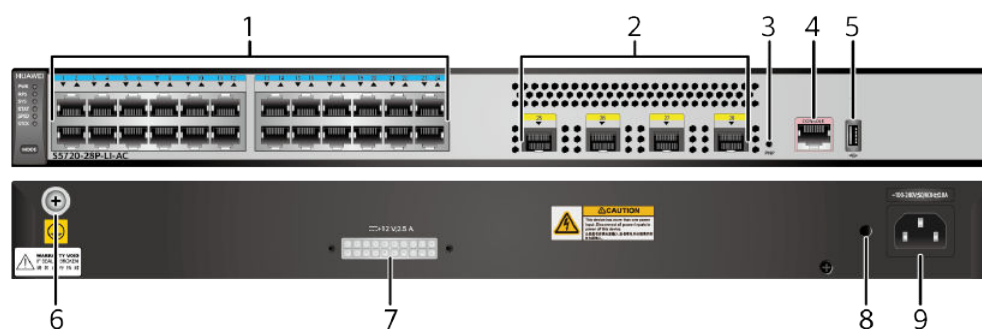
Table 4-243 lists the mapping between the S5720-28P-LI-AC chassis and software versions.

Table 4-243 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28P-LI-AC	V200R011C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-94 S5720-28P-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	<p>2</p> <p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>A license can be activated on the switch to increase the speed of the four optical ports to 10 Gbit/s.</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables
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			<p>(used for zero-configuration stacking, supported in V200R011C10 and later versions)</p> <ul style="list-style-type: none"> H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-244](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-244 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-245](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-245 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-246](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-246 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-247](#).

Table 4-247 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

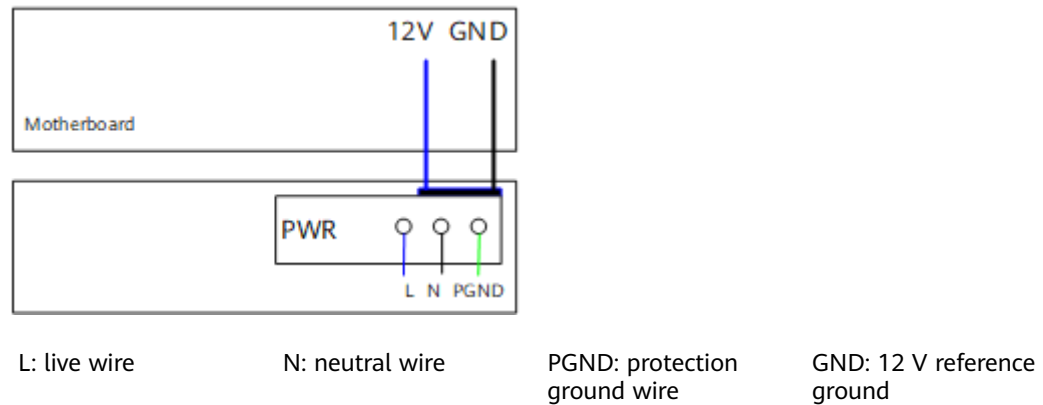
The S5720-28P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-28P-LI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 4-95 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-95 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-28P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-248 lists technical specifications of the S5720-28P-LI-AC.

Table 4-248 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	3.9 kg (8.6 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	27.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	19.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distances.

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010768

4.8.7 S5720-28P-PWR-LI-AC

Version Mapping

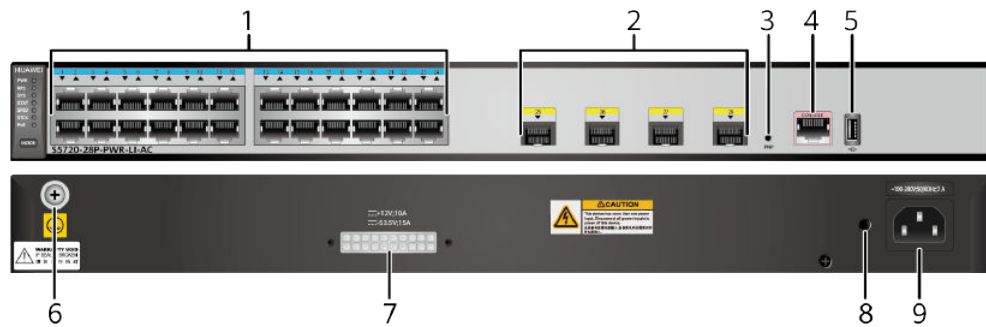
[Table 4-249](#) lists the mapping between the S5720-28P-PWR-LI-AC chassis and software versions.

Table 4-249 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28P-PWR-LI-AC	V200R011C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-96 S5720-28P-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2 Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>A license can be activated on the switch to increase the speed of the four optical ports to 10 Gbit/s. Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables
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			<p>(used for zero-configuration stacking, supported in V200R011C10 and later versions)</p> <ul style="list-style-type: none"> H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-250** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-250 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-251](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-251 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-252](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-252 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-253](#).

Table 4-253 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

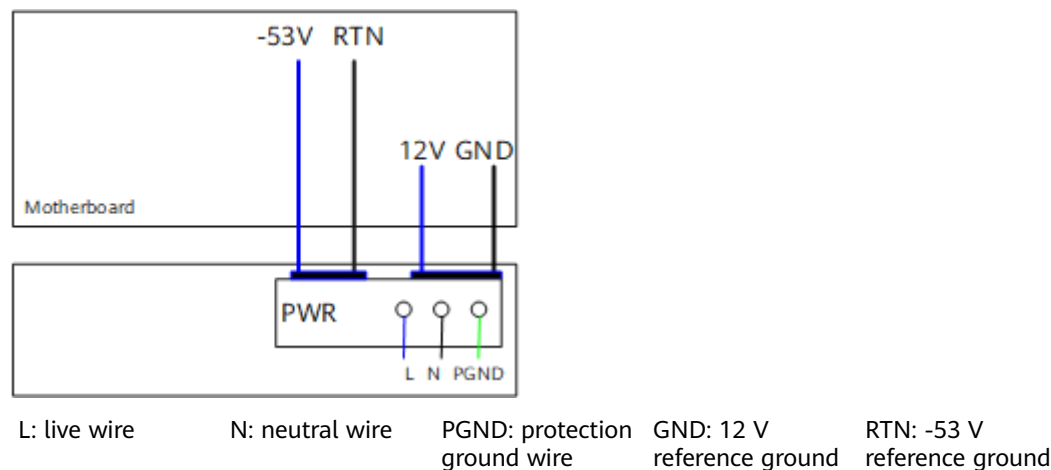
The S5720-28P-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

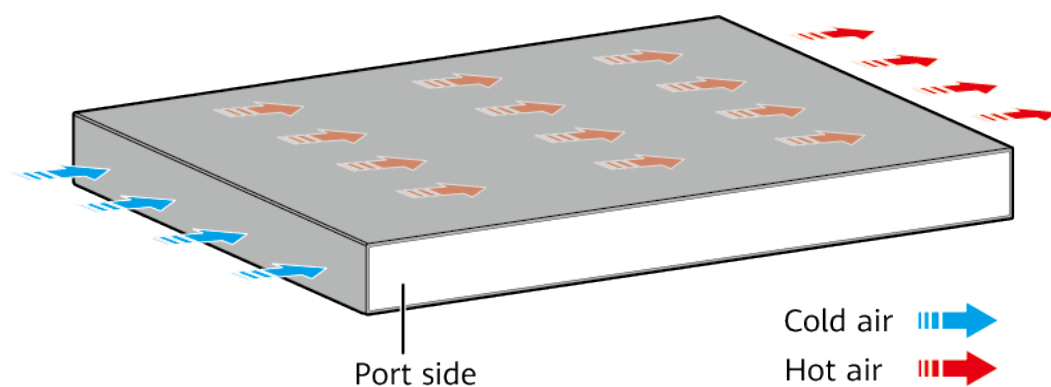
Figure 4-97 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-97 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-28P-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-254 lists technical specifications of the S5720-28P-PWR-LI-AC.

Table 4-254 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.2 kg (11.45 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 42.7 W 100% PoE loads: 448.5 W (system power consumption: 78.9 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.5 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010769

4.8.8 S5720-52P-LI-AC

Version Mapping

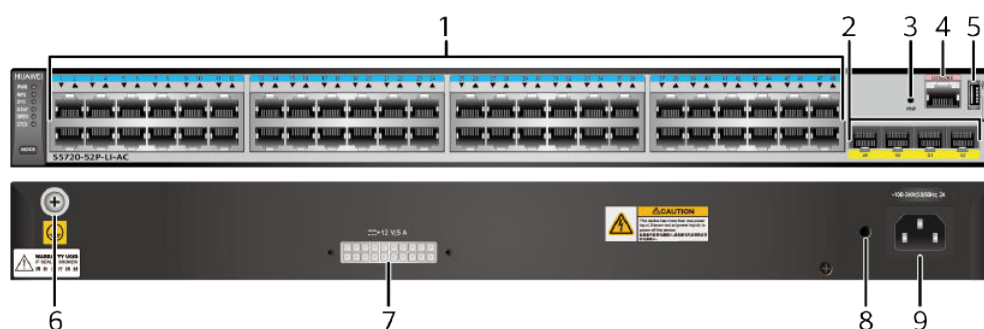
[Table 4-255](#) lists the mapping between the S5720-52P-LI-AC chassis and software versions.

Table 4-255 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52P-LI-AC	V200R011C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-98 S5720-52P-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	<p>2</p> <p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>A license can be activated on the switch to increase the speed of the four optical ports to 10 Gbit/s.</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables
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			<p>(used for zero-configuration stacking, supported in V200R011C10 and later versions)</p> <ul style="list-style-type: none"> • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-256](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-256 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-257](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-257 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-258](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-258 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-259](#).

Table 4-259 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

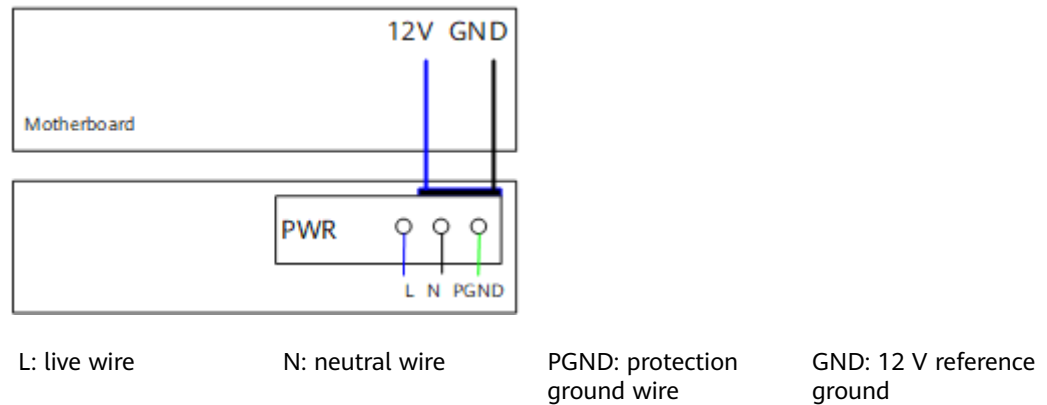
The S5720-52P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-52P-LI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

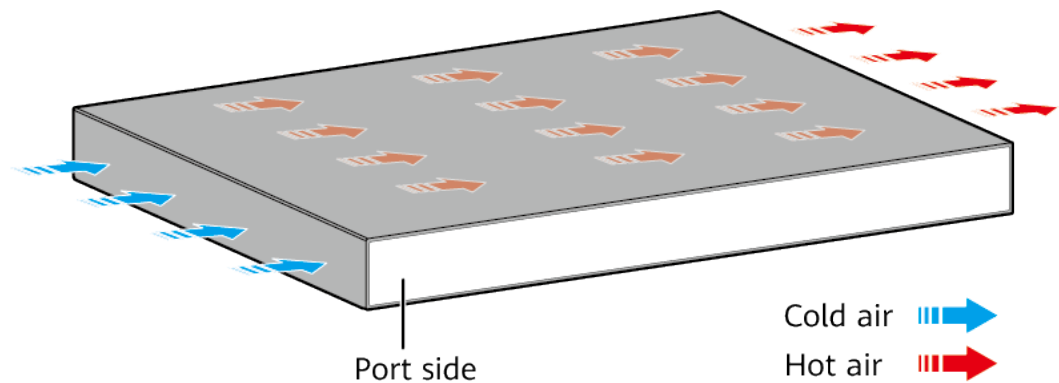
Figure 4-99 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-99 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-52P-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-260 lists technical specifications of the S5720-52P-LI-AC.

Table 4-260 Technical specifications

Item	Description
Memory (RAM)	512 MB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	50.3 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	31.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010774

4.8.9 S5720-52P-PWR-LI-AC

Version Mapping

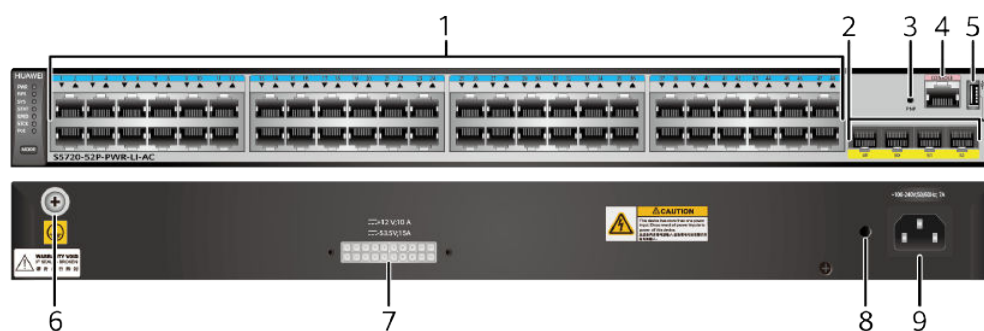
Table 4-261 lists the mapping between the S5720-52P-PWR-LI-AC chassis and software versions.

Table 4-261 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52P-PWR-LI-AC	V200R011C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-100 S5720-52P-PWR-LI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	<p>2</p> <p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>A license can be activated on the switch to increase the speed of the four optical ports to 10 Gbit/s.</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables
---	--	--

			<p>(used for zero-configuration stacking, supported in V200R011C10 and later versions)</p> <ul style="list-style-type: none"> • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-262](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-262 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-263](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-263 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-264](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-264 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-265](#).

Table 4-265 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

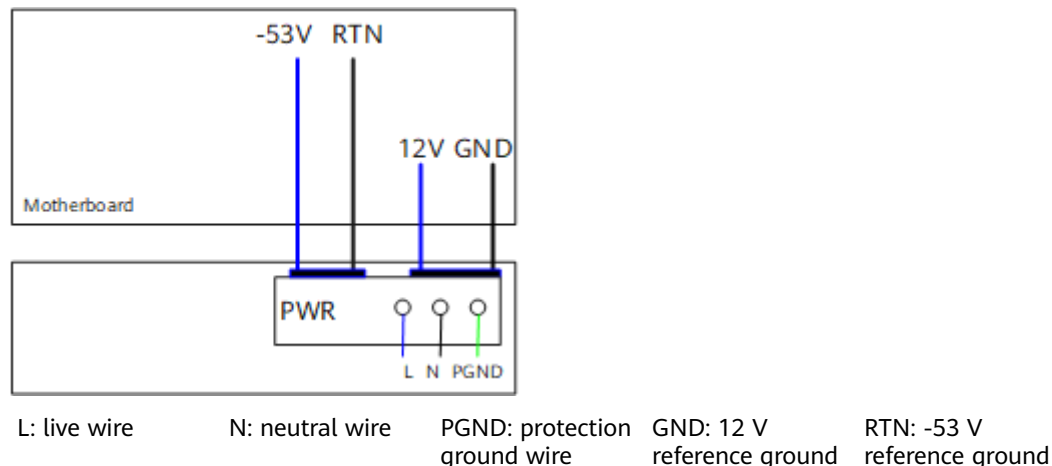
The S5720-52P-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

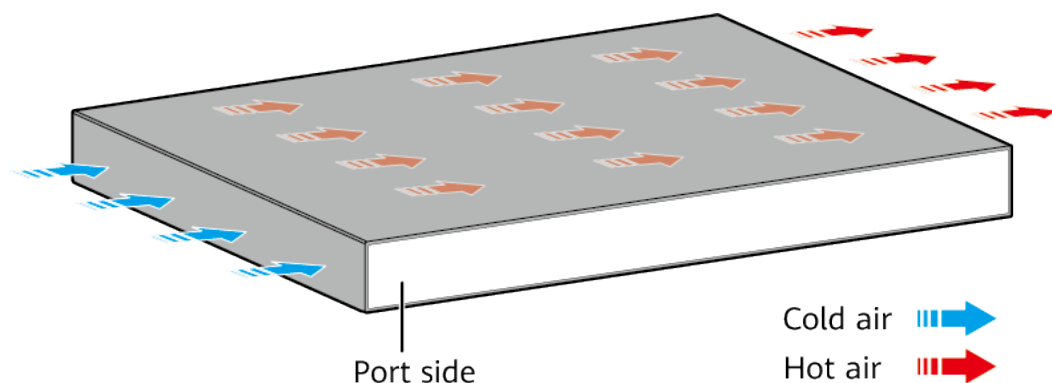
Figure 4-101 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-101 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-52P-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-266 lists technical specifications of the S5720-52P-PWR-LI-AC.

Table 4-266 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.6 kg (12.35 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 63.5 W100% PoE loads: 464.3 W (system power consumption: 94.7 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010776

4.8.10 S5720-16X-PWH-LI-AC

Version Mapping

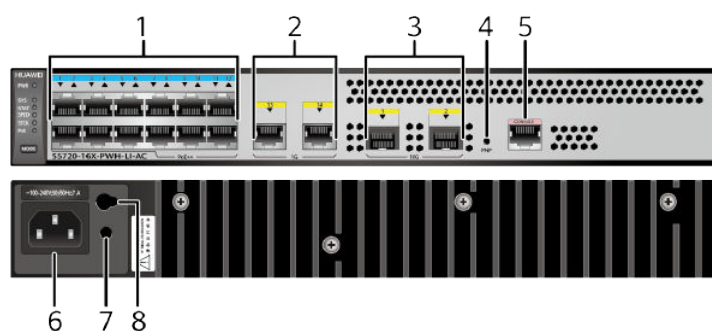
[Table 4-267](#) lists the mapping between the S5720-16X-PWH-LI-AC chassis and software versions.

Table 4-267 Version mapping

Series	Model	Software Version
S5720-LI	S5720-16X-PWH-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-102 S5720-16X-PWH-LI-AC appearance



1	Twelve PoE++ 10/100/1000BASE-T ports	2	Two 10/100/1000BASE-T ports
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3	<p>Two 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • 10.18 Industrial Optical Modules • GE copper module • 1 m, 3 m, 5 m SFP+ high-speed copper cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTICE</p> <p>The switch cannot enter the standby mode if it has optical modules installed on its optical ports.</p> <p>If the switch is in the standby mode, installing optical modules on its optical interface will cause the switch to exit from the standby mode.</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p>	6	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>	8	<p>Jack for a connection box adapter plate</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-268](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-268 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-269](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-269 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-270](#).

Table 4-270 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

The S5720-16X-PWH-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-16X-PWH-LI-AC does not have an RPS or USB indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-16X-PWH-LI-AC has a built-in power module and does not support pluggable power modules. The S5720-16X-PWH-LI-AC is a PoE switch and its built-in power module is a PoE power module.

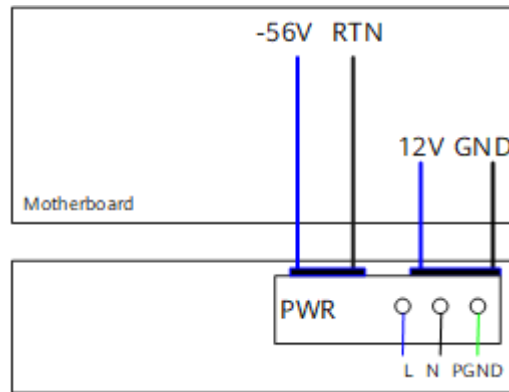
Table 4-271 PoE power supply capacity of the built-in power module

Available PoE Power	Maximum Number of Ports (Fully Loaded)
360 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 12802.3at (30 W per port): 12802.3bt (60 W per port): 6

The S5720-16X-PWH-LI-AC supports the standby mode. In this mode, the switch does not provide PoE power supply and works in low-power state. All ports of the switch, except GE0/0/13 and GE0/0/14, are shut down in the standby mode.

[Figure 4-103](#) shows the power supply mode of the power module in the S5720-16X-PWH-LI-AC switch. The power module receives AC power from an external power source and provides two outputs: 12 V and -56 V. By default, the -56 V output voltage is provided to the switch and powered devices (PDs) connected to the switch. After the switch enters the standby mode, only the 12 V output voltage is provided for power supply of the switch.

Figure 4-103 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -56 V reference ground

Heat Dissipation

The S5720-16X-PWH-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-272](#) lists technical specifications of the S5720-16X-PWH-LI-AC.

Table 4-272 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	9.3 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 320.0 mm x 263.0 mm (1.72 in. x 12.6 in. x 10.35 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 324.3 mm x 269.7 mm (1.72 in. x 12.77 in. x 10.62 in.)
Weight (with packaging)	4.7 kg (10.36 lb)
Stack ports	All electrical ports and optical ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> Not providing the PoE function: 31.5 W 100% PoE loads: 437.5 W (system power consumption: 77.5 W, PoE: 360 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	30.9 W
Operating temperature	<p>0°C to 55°C (32°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature range for the switch is 0°C to 45°C (32°F to 113°F) if the switch uses optical modules.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010657

4.8.11 S5720-28X-LI-AC

Version Mapping

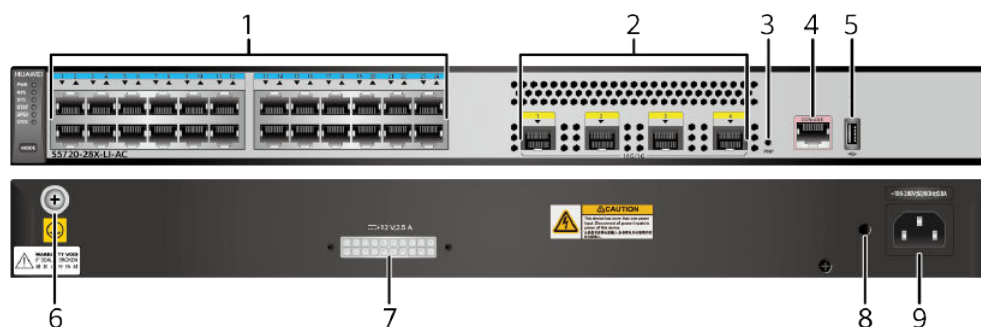
[Table 4-273](#) lists the mapping between the S5720-28X-LI-AC chassis and software versions.

Table 4-273 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-104 S5720-28X-LI-AC appearance



1	<p>Twenty-four 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>A switch can use a maximum of two 10GE optical modules with 40 km or longer transmission distances.</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-274](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-274 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-275](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-275 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-276](#).

Table 4-276 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

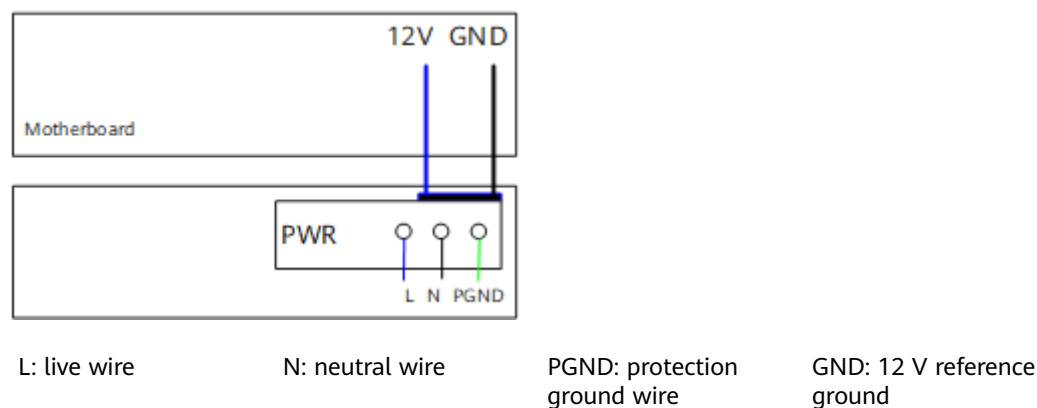
The S5720-28X-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-28X-LI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

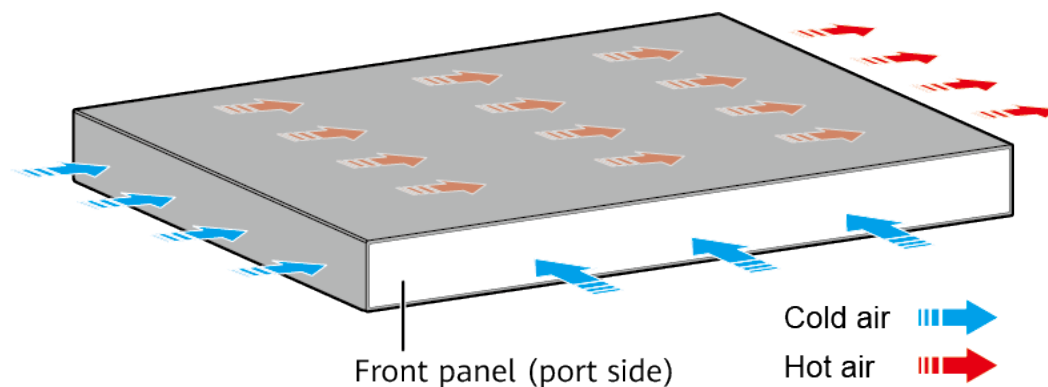
Figure 4-105 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-105 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-28X-LI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-277 lists technical specifications of the S5720-28X-LI-AC.

Table 4-277 Technical specifications

Item	Description
Memory (RAM)	512 MB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	3.9 kg (8.6 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	29.5 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	21.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010581

4.8.12 S5720-28X-LI-DC

Version Mapping

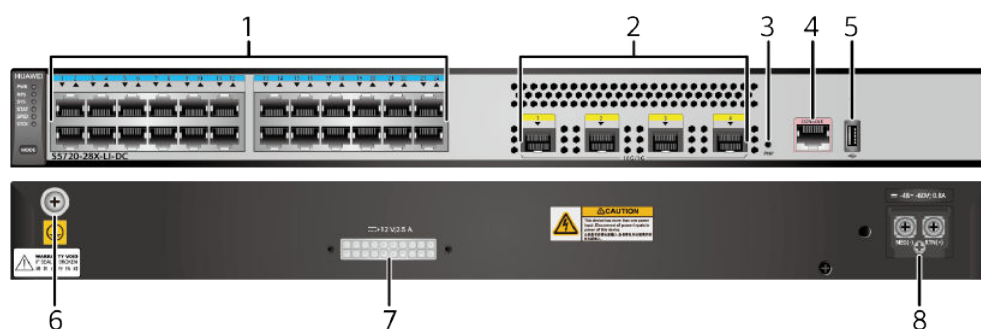
[Table 4-278](#) lists the mapping between the S5720-28X-LI-DC chassis and software versions.

Table 4-278 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-LI-DC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-106 S5720-28X-LI-DC appearance



1	<p>Twenty-four 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>A switch can use a maximum of two 10GE optical modules with 40 km or longer transmission distances.</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-279** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-279 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. **Table 4-280** describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-280 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 4-281](#).

Table 4-281 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

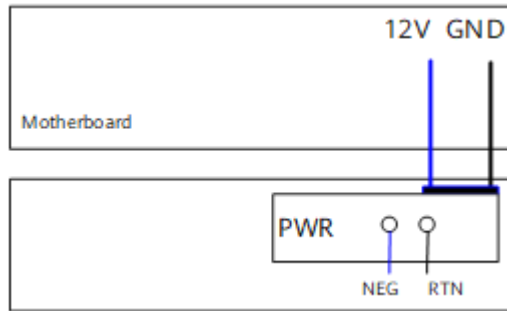
The S5720-28X-LI-DC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-28X-LI-DC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 4-107](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-107 Power supply by a single DC power module



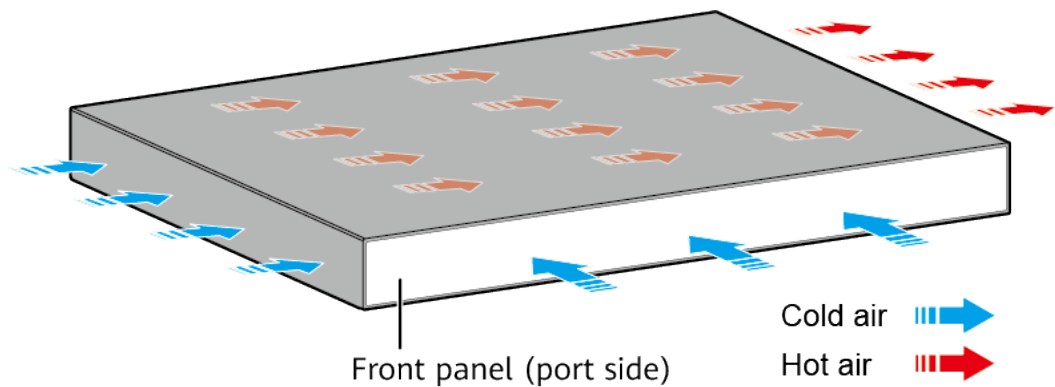
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5720-28X-LI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-282](#) lists technical specifications of the S5720-28X-LI-DC.

Table 4-282 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4 kg (8.82 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	31 W
Typical power consumption (30% of traffic load)	19.8 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-3000 m (0-9483 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010582

4.8.13 S5720-28X-LI-24S-AC

Version Mapping

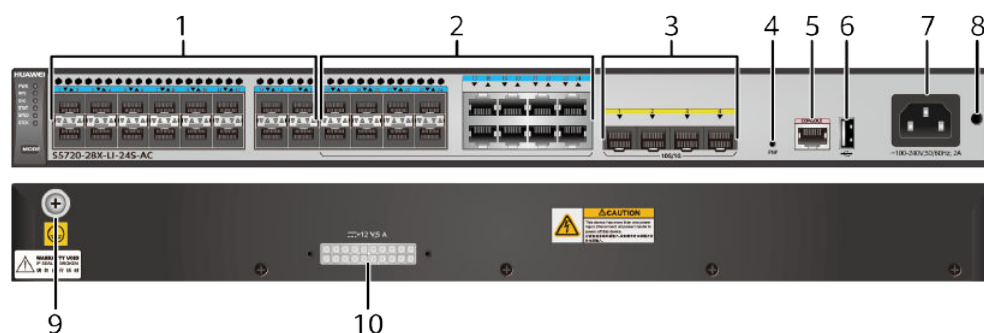
Table 4-283 lists the mapping between the S5720-28X-LI-24S-AC chassis and software versions.

Table 4-283 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-LI-24S-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-108 S5720-28X-LI-24S-AC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	One USB port
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-284](#) describes the attributes of a 100/1000BASE-X port.

Table 4-284 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-285](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-285 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-286](#).

Table 4-286 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

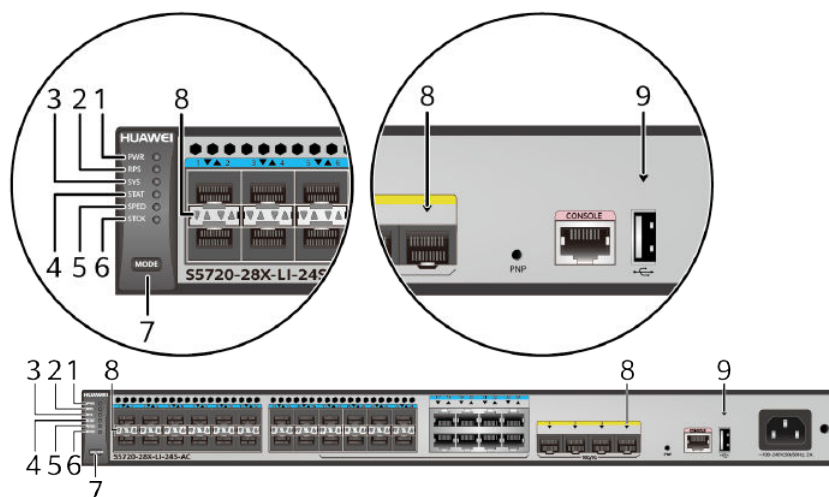
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-109 Indicators on the S5720-28X-LI-24S-AC



NOTE

The S5720-LI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 4-287 Description of indicators on the switch

No.	Indicator/ Button	Name	Color	Status	Description
1	PWR	Power module	-	Off	The switch is powered off.

No.	Indicator/ Button	Name	Color	Status	Description
		indicator	Green	Steady on	The system power supply is normal.
			Yellow	Steady on	The built-in power module has failed, and the switch is receiving power from a redundant power supply (RPS).
2	RPS	RPS indicator	-	Off	The switch is not connected to an RPS.
			Green	Steady on	The RPS is in cold standby state.
			Green	Blinking	The RPS is supplying power to another switch.
			Yellow	Blinking	The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator/ Button	Name	Color	Status	Description
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>

No.	Indicator/ Button	Name	Color	Status	Description
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-288 and Table 4-289 .		
9	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-288 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 4-289 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

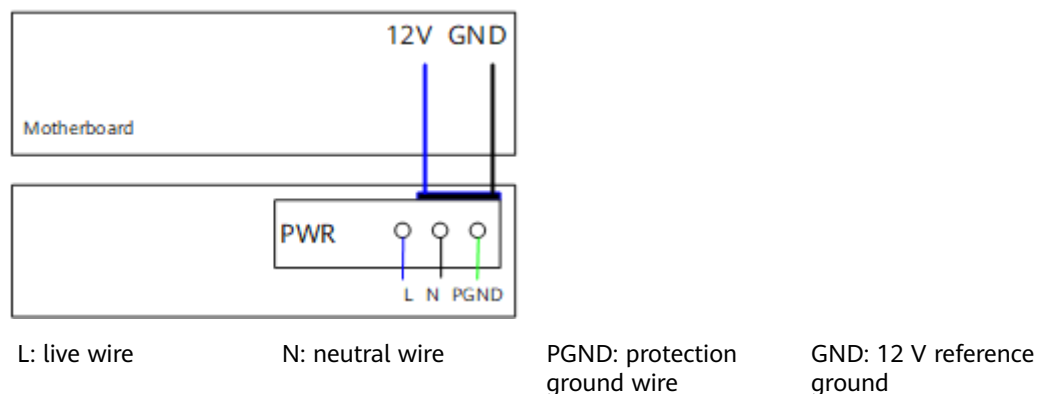
Display Mode	Color	Status	Description
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-28X-LI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

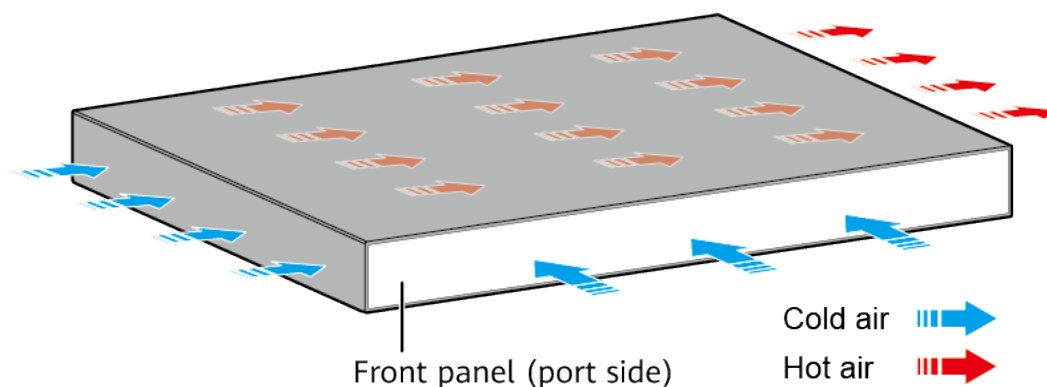
Figure 4-110 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-110 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-28X-LI-24S-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-290 lists technical specifications of the S5720-28X-LI-24S-AC.

Table 4-290 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.1 kg (9.04 lb)
Stack ports	GE SFP optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	41.7 W
Typical power consumption (30% of traffic load)	28.9 W <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010629

4.8.14 S5720-28X-LI-24S-DC

Version Mapping

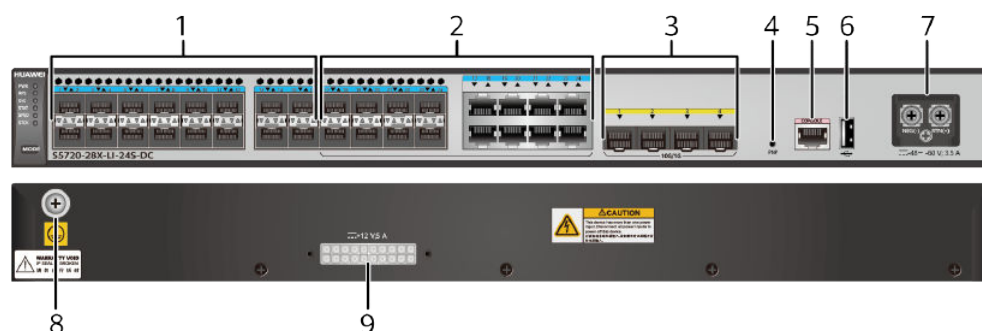
Table 4-291 lists the mapping between the S5720-28X-LI-24S-DC chassis and software versions.

Table 4-291 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-LI-24S-DC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-111 S5720-28X-LI-24S-DC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	One USB port
7	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>	8	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
9	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-292](#) describes the attributes of a 100/1000BASE-X port.

Table 4-292 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-293](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-293 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-294](#).

Table 4-294 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

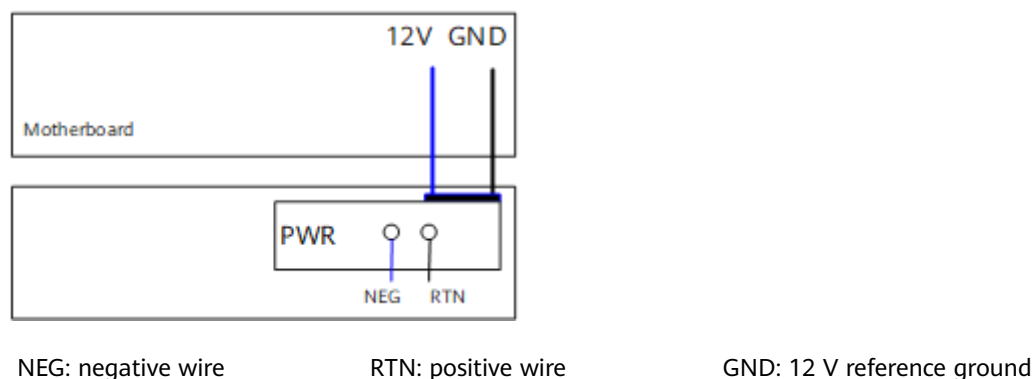
The S5720-28X-LI-24S-DC has the same types of indicators as the S5720-28X-LI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-LI-24S-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

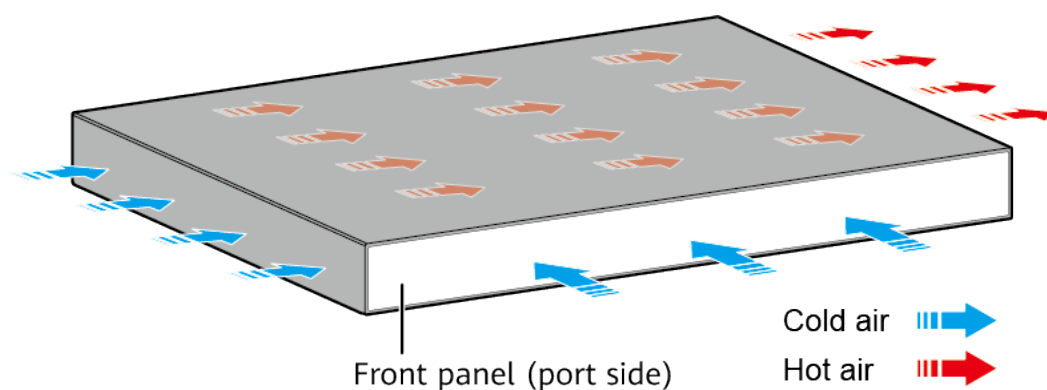
Figure 4-112 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-112 Power supply by a single DC power module



Heat Dissipation

The S5720-28X-LI-24S-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-295 lists technical specifications of the S5720-28X-LI-24S-DC.

Table 4-295 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.1 kg (9.04 lb)
Stack ports	GE SFP optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	42.7 W

Item	Description
<p>Typical power consumption (30% of traffic load)</p> <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<p>30.3 W</p>
<p>Operating temperature</p>	<p>0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
<p>Short-term operating temperature</p>	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
<p>Storage temperature</p>	<p>-40°C to +70°C (-40°F to +158°F)</p>
<p>Noise under normal temperature (27°C, sound power)</p>	<p>< 43 dB(A)</p>
<p>Relative humidity</p>	<p>5% to 95%, noncondensing</p>
<p>Operating altitude</p>	<p>0-5000 m (0-16404 ft.)</p>

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010631

4.8.15 S5720-28X-PWR-LI-AC

Version Mapping

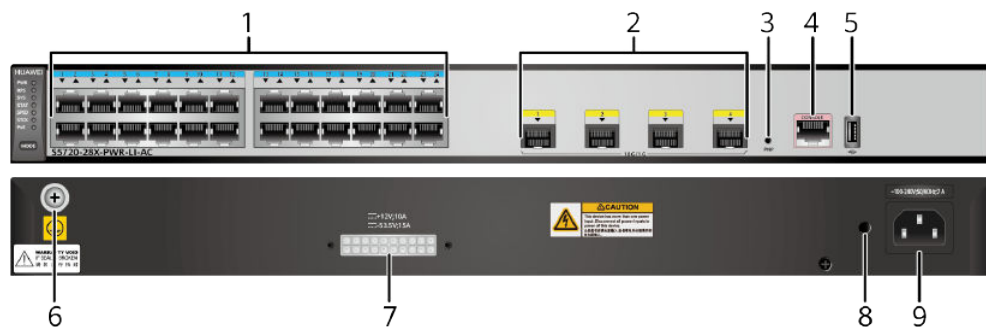
[Table 4-296](#) lists the mapping between the S5720-28X-PWR-LI-AC chassis and software versions.

Table 4-296 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-PWR-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-113 S5720-28X-PWR-LI-AC appearance



1	<p>Twenty-four PoE + 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-297](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-297 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-298](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-298 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-299](#).

Table 4-299 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

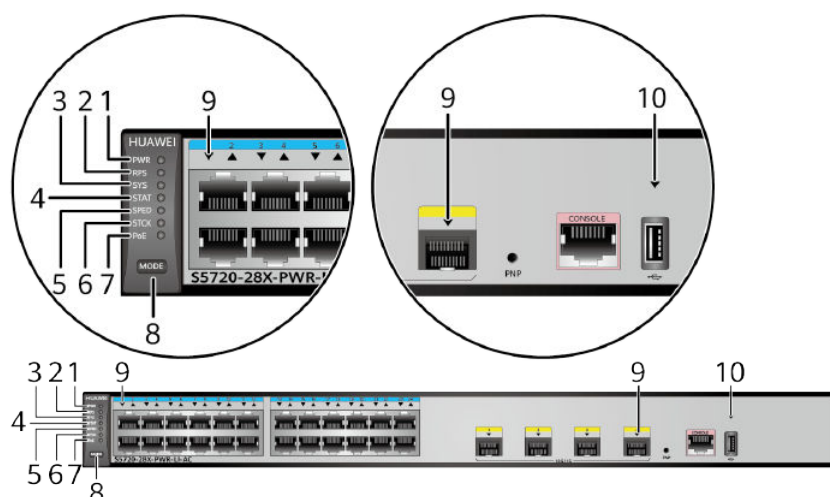
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-114 Indicators on the S5720-28X-PWR-LI-AC



NOTE

The S5720-LI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 4-300 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	<ul style="list-style-type: none"> The built-in power module has failed, and the switch is receiving power from a redundant power supply (RPS). The built-in PoE power module has failed.
2	RPS	RPS indicator	-	Off	The switch is not connected to an RPS.
			Green	Steady on	The RPS is in cold standby state.
			Green	Blinking	The RPS is supplying power to another switch.
			Yellow	Blinking	The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>

No.	Indicator	Name	Color	Status	Description
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-301 .		
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-301 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

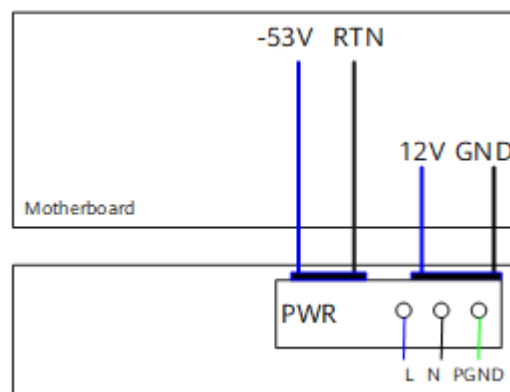
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-28X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

Figure 4-115 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-115 Power supply by a built-in AC PoE power module



L: live wire

N: neutral wire

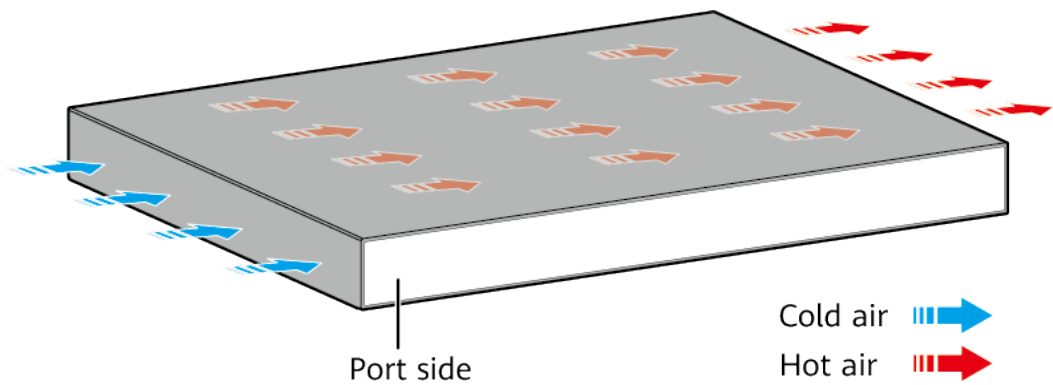
PGND: protection
ground wire

GND: 12 V
reference ground

RTN: -53 V
reference ground

Heat Dissipation

The S5720-28X-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-302 lists technical specifications of the S5720-28X-PWR-LI-AC.

Table 4-302 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.2 kg (11.45 lb)

Item	Description
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Not providing the PoE function: 42.7 W ● 100% PoE loads: 448.5 W (system power consumption: 78.9 W, PoE: 369.6 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	29.5 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010593

4.8.16 S5720-28X-PWR-LI-ACF

Version Mapping

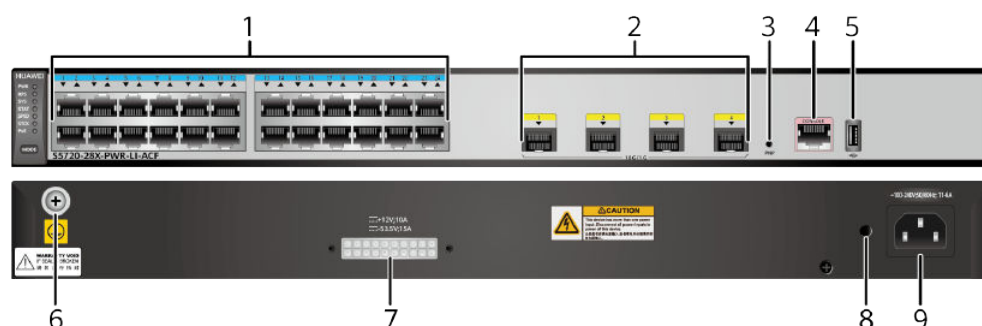
Table 4-303 lists the mapping between the S5720-28X-PWR-LI-ACF chassis and software versions.

Table 4-303 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-PWR-LI-ACF	V200R013C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-116 S5720-28X-PWR-LI-ACF appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) • H87MMA5671A2 GPON optical module NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.
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3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE</p> <p>It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-304](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-304 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-305](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-305 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-306](#).

Table 4-306 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

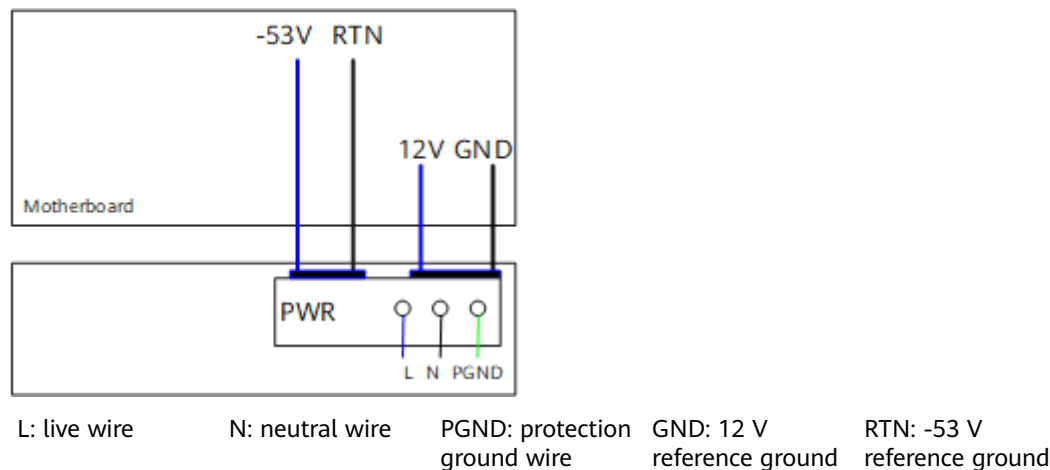
The S5720-28X-PWR-LI-ACF has the same types of indicators as the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-PWR-LI-ACF has a built-in power module and does not support pluggable power modules. The built-in power module can provide 740 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

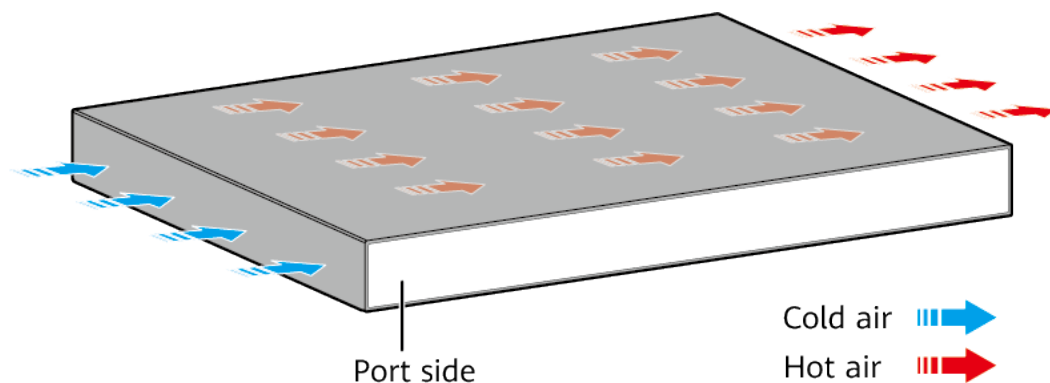
Figure 4-117 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-117 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-28X-PWR-LI-ACF has two built-in fans for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-307 lists technical specifications of the S5720-28X-PWR-LI-ACF.

Table 4-307 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.9 kg (13.01 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 45 W • 100% PoE loads: 984 W (PoE: 739.2 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	33 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 59.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010595

4.8.17 S5720-28X-PWH-LI-AC

Version Mapping

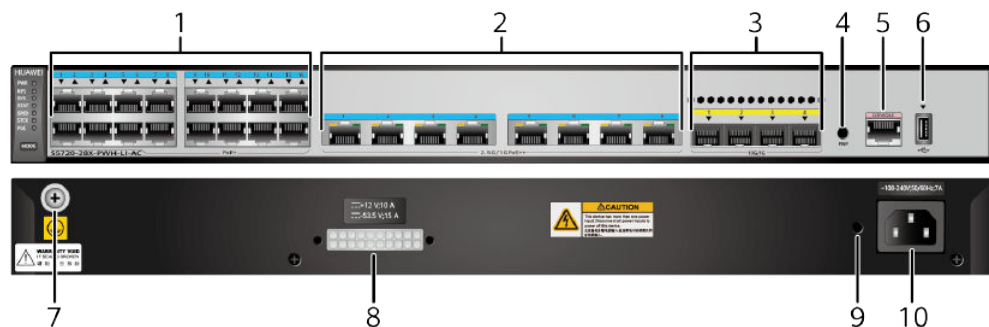
Table 4-308 lists the mapping between the S5720-28X-PWH-LI-AC chassis and software versions.

Table 4-308 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-PWH-LI-AC	V200R011C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-118 S5720-28X-PWH-LI-AC appearance



1	Sixteen PoE+ 10/100/1000BASE-T ports	2	Eight PoE++ 100M/1000M/2.5G BASE-T ports (MultiGE port)
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>
9	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	10	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-309](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-309 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100M/1000M/2.5G BASE-T port

A 100M/1000M/2.5G BASE-T port (MultiGE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, or 2.5 Gbit/s, and must use an **Ethernet cable**. If the 2.5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. [Table 4-310](#) describes the attributes of a 100M/1000M/2.5G BASE-T port.

Table 4-310 Attributes of a 100M/1000M/2.5G BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, mgbase-t
Working Mode	100/1000/2500 Mbit/s auto-sensing

A 100M/1000M/2.5G BASE-T port supports the connection with the following devices:

- All switches providing FE electrical interfaces or GE electrical interfaces
- All devices providing MultiGE interfaces defined by the NBASE-T Alliance
- All devices providing MultiGE interfaces that comply with the 802.3bz standard

[Table 4-311](#) lists the maximum transmission distances of different cables on MultiGE ports.

Table 4-311 Maximum transmission distances of different cables on MultiGE ports

Cable Type (6-a-1 Bundle)	MultiGE Port (Different Rates)	
	100M/1000M	2.5GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m
Category 5e shielded twisted pair (Cat5e STP)	100 m	200 m Only the APs listed below are supported if the transmission distance is longer than 100 m: <ul style="list-style-type: none"> • AP7052DN/ AP7152DN • AP6052DN • AP8082DN/ AP8182DN • AP7052DE • AP7060DN
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m
Category 6 shielded twisted pair (Cat6 STP)	100 m	200 m Only the APs listed below are supported if the transmission distance is longer than 100 m: <ul style="list-style-type: none"> • AP7052DN/ AP7152DN • AP6052DN • AP8082DN/ AP8182DN • AP7052DE • AP7060DN
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m

Cable Type (6-a-1 Bundle)	MultiGE Port (Different Rates)	
	100M/1000M	2.5GE
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	200 m Only the APs listed below are supported if the transmission distance is longer than 100 m: <ul style="list-style-type: none">• AP7052DN/ AP7152DN• AP6052DN• AP8082DN/ AP8182DN• AP7052DE• AP7060DN
Category 6A shielded twisted pair (Cat6A STP)	100 m	200 m Only the APs listed below are supported if the transmission distance is longer than 100 m: <ul style="list-style-type: none">• AP7052DN/ AP7152DN• AP6052DN• AP8082DN/ AP8182DN• AP7052DE• AP7060DN
Category 7 shielded twisted pair (Cat7)	100 m	200 m Only the APs listed below are supported if the transmission distance is longer than 100 m: <ul style="list-style-type: none">• AP7052DN/ AP7152DN• AP6052DN• AP8082DN/ AP8182DN• AP7052DE• AP7060DN

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-312](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-312 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-313](#).

Table 4-313 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28X-PWH-LI-AC has the same types of indicators as the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

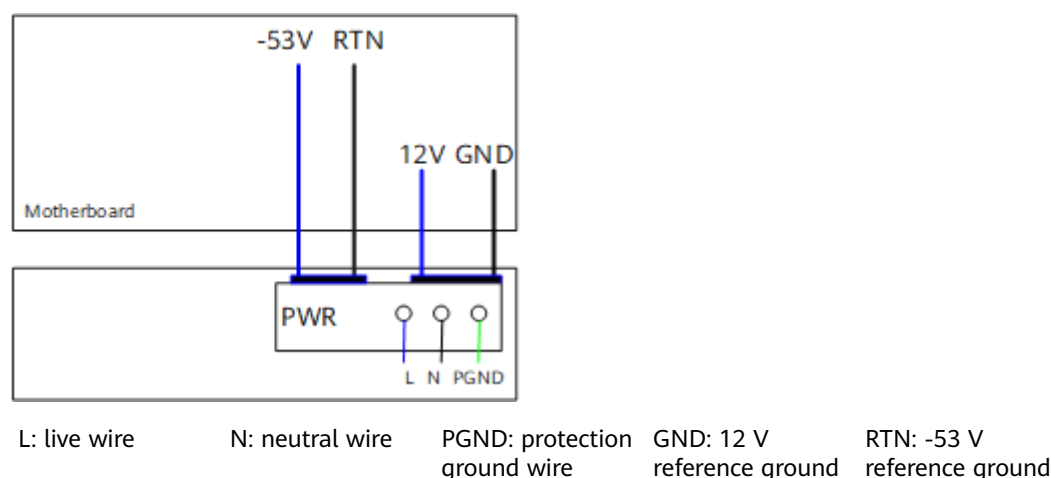
The S5720-28X-PWH-LI-AC has a built-in power module and does not support pluggable power modules. It is a PoE switch. In addition to the built-in PoE power module, the switch can also connect to an RPS1800 for power redundancy.

Table 4-314 PoE power supply capacity of the built-in power module

Available PoE Power	Maximum Number of Ports (Fully Loaded)
360 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 23 802.3at (30 W per port): 12 802.3bt (60 W per port): 6 (only PoE++ ports)

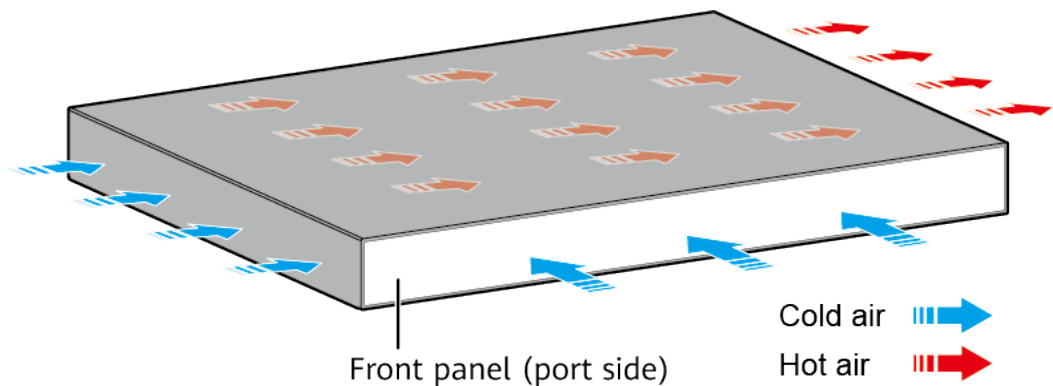
Figure 4-119 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-119 Power supply by a built-in AC PoE power module



Heat dissipation

The S5720-28X-PWH-LI-AC has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-315](#) lists technical specifications of the S5720-28X-PWH-LI-AC.

Table 4-315 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.6 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.9 mm (1.72 in. x 17.4 in. x 12.39 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.9 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.9 kg (13.01 lb)
Stack ports	Sixteen 10/100/1000BASE-T ports and four 10GE SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none">• Not providing the PoE function: 67.3 W• 100% PoE loads: 473 W (system power consumption: 113 W, PoE: 360 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	51.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 55.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010659

4.8.18 S5720-52X-LI-AC

Version Mapping

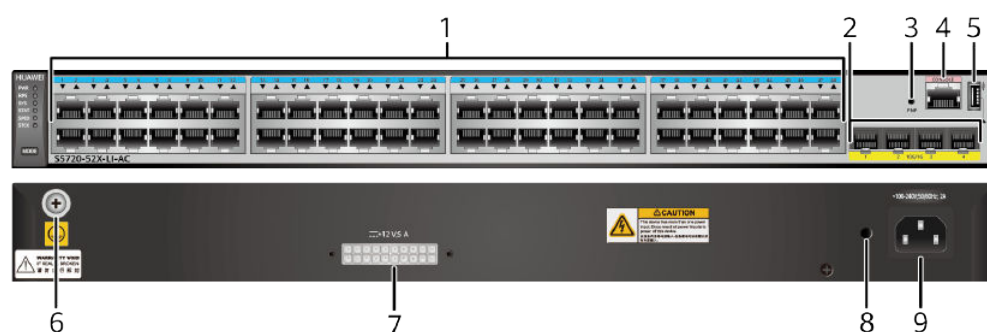
[Table 4-316](#) lists the mapping between the S5720-52X-LI-AC chassis and software versions.

Table 4-316 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52X-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-120 S5720-52X-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One PNP button <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	One console port
5	One USB port	6	Ground screw <p>NOTE It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-317](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-317 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-318](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-318 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-319](#).

Table 4-319 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

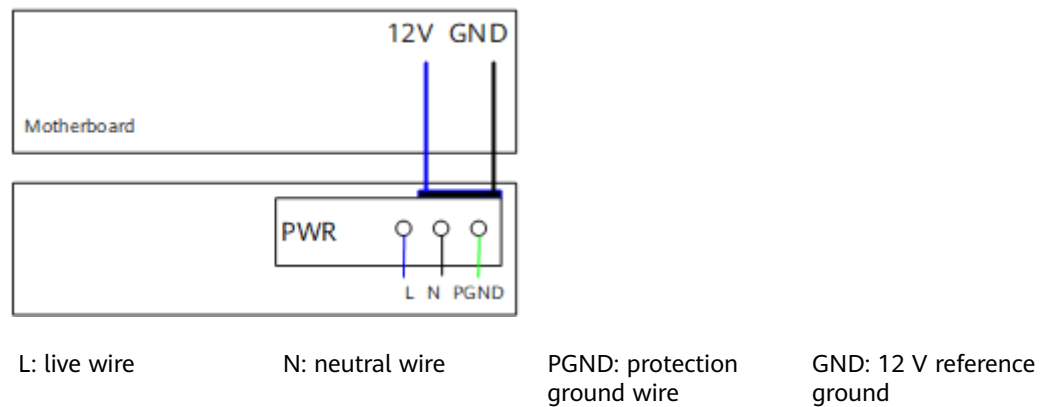
The S5720-52X-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-52X-LI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

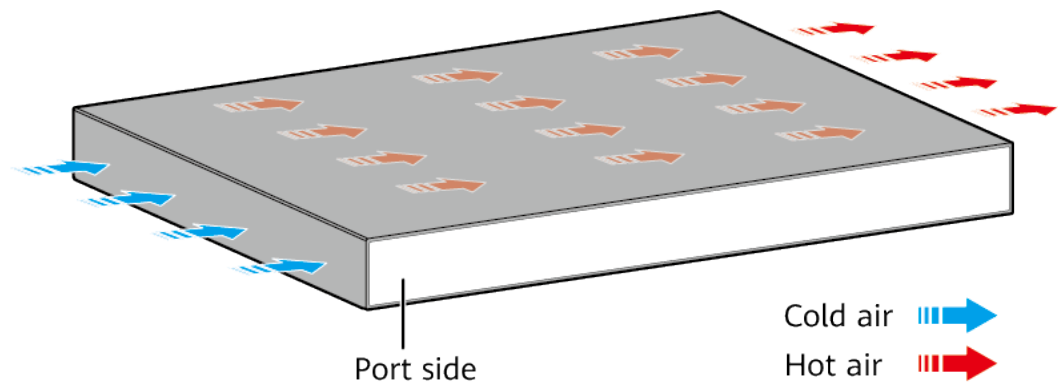
Figure 4-121 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-121 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-52X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-320 lists technical specifications of the S5720-52X-LI-AC.

Table 4-320 Technical specifications

Item	Description
Memory (RAM)	512 MB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	50.3 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	31.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010606

4.8.19 S5720-52X-LI-DC

Version Mapping

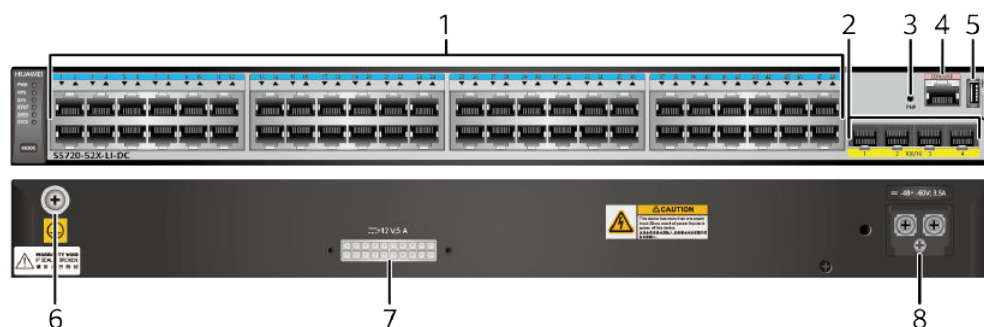
[Table 4-321](#) lists the mapping between the S5720-52X-LI-DC chassis and software versions.

Table 4-321 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52X-LI-DC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-122 S5720-52X-LI-DC appearance



1	<p>Forty-eight 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>
---	--	---	--

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-322](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-322 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-323](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-323 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 4-324](#).

Table 4-324 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

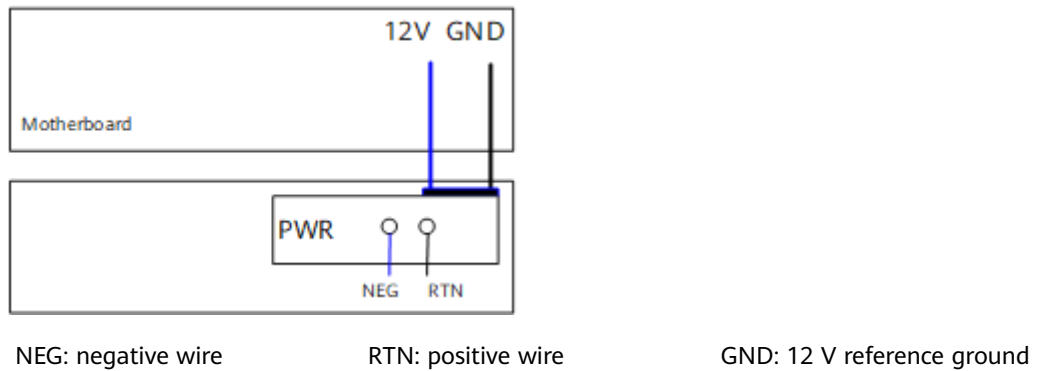
The S5720-52X-LI-DC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-52X-LI-DC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

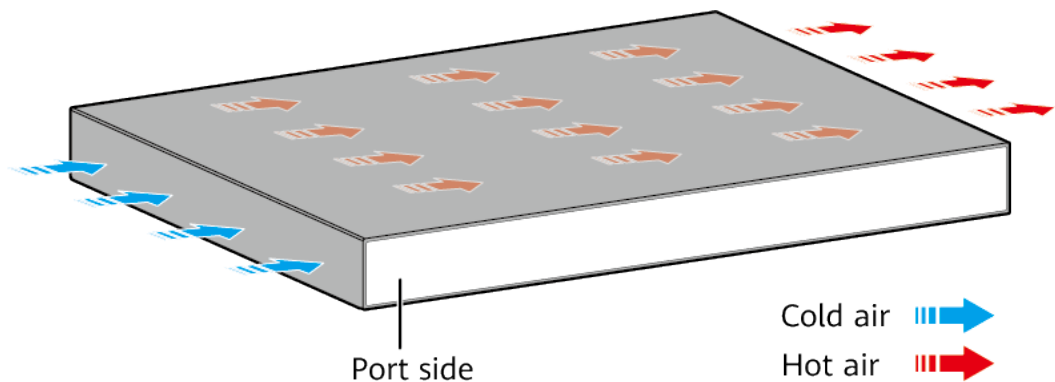
[Figure 4-123](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-123 Power supply by a single DC power module



Heat Dissipation

The S5720-52X-LI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-325](#) lists technical specifications of the S5720-52X-LI-DC.

Table 4-325 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	51.6 W
Typical power consumption (30% of traffic load)	33.1 W
<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	

Item	Description
Operating temperature	<p>0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010607

4.8.20 S5720-52X-PWR-LI-AC

Version Mapping

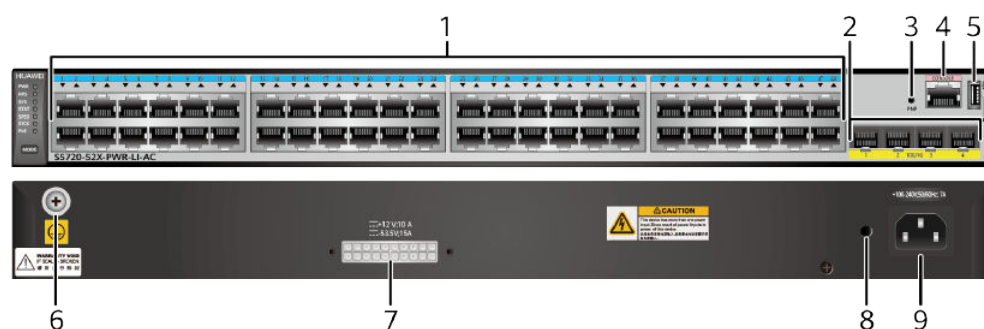
Table 4-326 lists the mapping between the S5720-52X-PWR-LI-AC chassis and software versions.

Table 4-326 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52X-PWR-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-124 S5720-52X-PWR-LI-AC appearance



1	<p>Forty-eight PoE+ 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-327](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-327 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-328](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-328 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-329](#).

Table 4-329 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

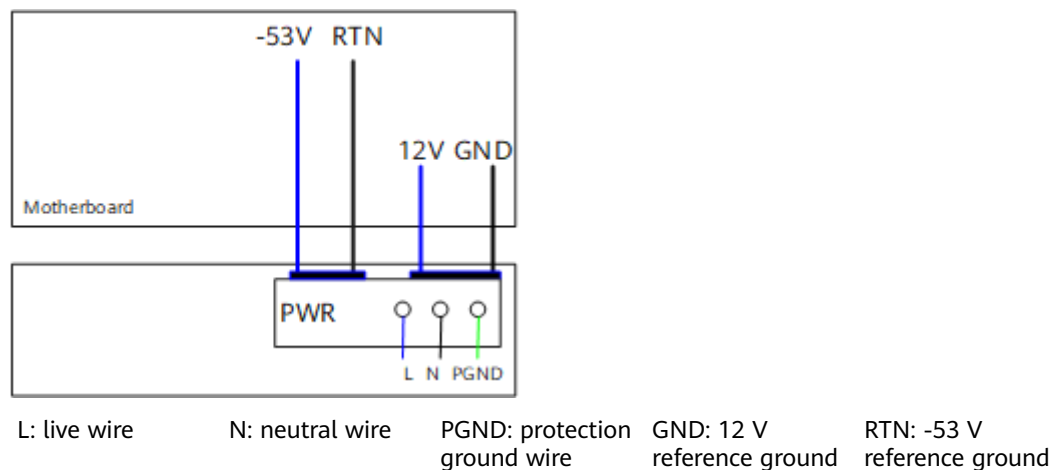
The S5720-52X-PWR-LI-AC has the same types of indicators as the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

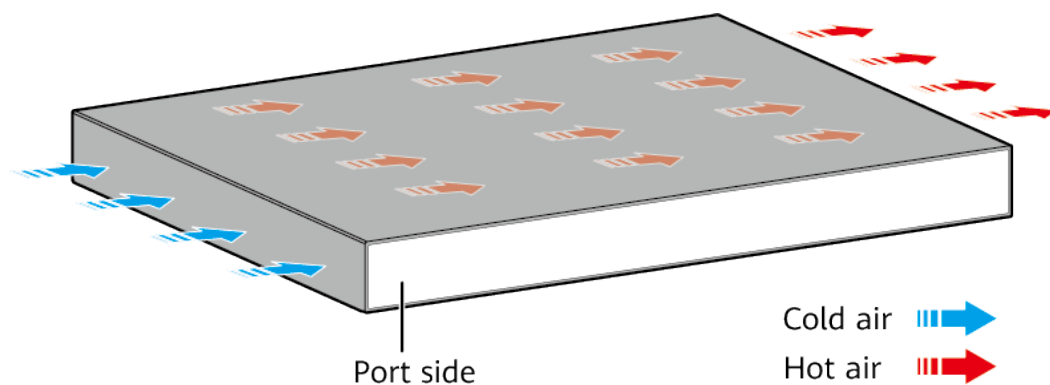
Figure 4-125 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-125 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-52X-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-330 lists technical specifications of the S5720-52X-PWR-LI-AC.

Table 4-330 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.6 kg (12.35 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 63.5 W 100% PoE loads: 464.3 W (system power consumption: 94.7 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010619

4.8.21 S5720-52X-PWR-LI-ACF

Version Mapping

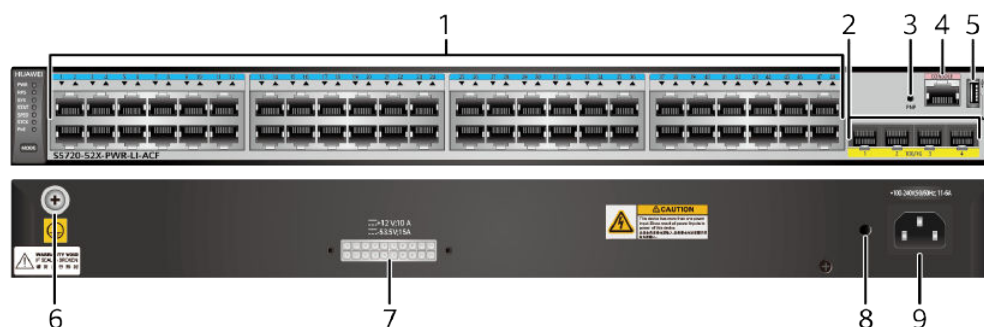
Table 4-331 lists the mapping between the S5720-52X-PWR-LI-ACF chassis and software versions.

Table 4-331 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52X-PWR-LI-ACF	V200R011C10 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-126 S5720-52X-PWR-LI-ACF appearance



1	<p>Forty-eight PoE+ 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-332](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-332 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-333](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-333 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-334](#).

Table 4-334 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

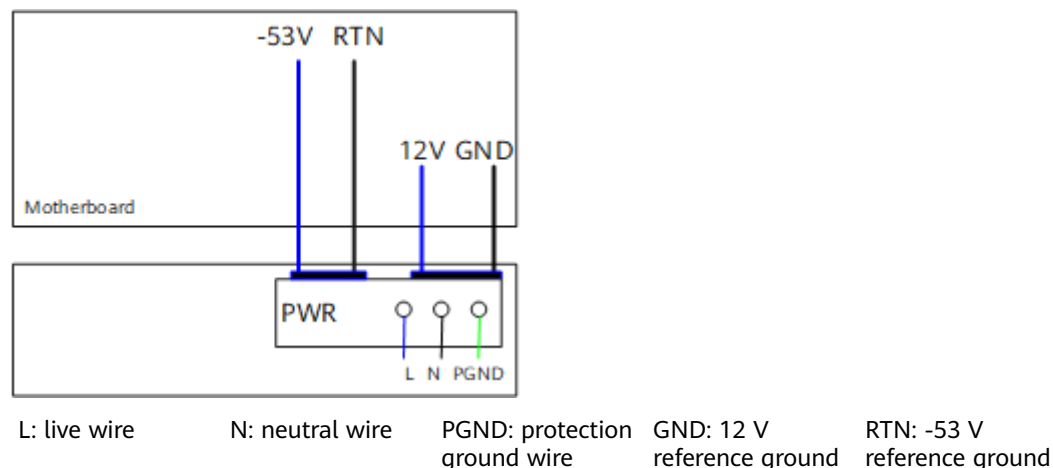
The S5720-52X-PWR-LI-ACF has the same types of indicators as the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-PWR-LI-ACF has a built-in power module and does not support pluggable power modules. The built-in power module can provide 740 W PoE power, which ensures full PoE power on 48 ports in compliance with 802.3af or on 24 ports in compliance with 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

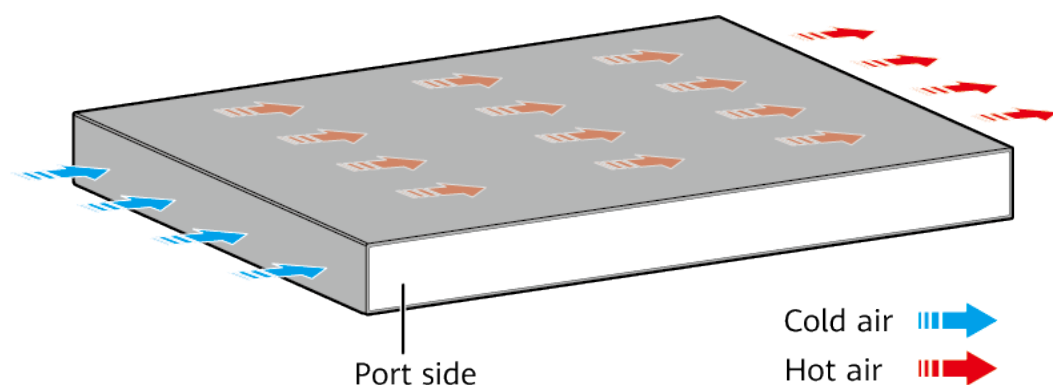
Figure 4-127 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-127 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-52X-PWR-LI-ACF have two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-335 lists technical specifications of the S5720-52X-PWR-LI-ACF.

Table 4-335 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	6.6 kg (14.55 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 52.1 W 100% PoE loads: 977 W (system power consumption: 237.8 W, PoE: 739.2 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010621

4.8.22 S5720-52X-LI-48S-AC

Version Mapping

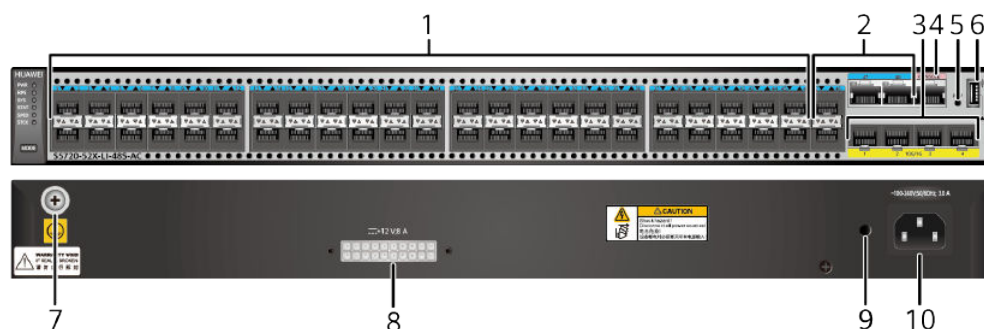
Table 4-336 lists the mapping between the S5720-52X-LI-48S-AC chassis and software versions.

Table 4-336 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52X-LI-48S-AC	V200R013C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-128 S5720-52X-LI-48S-AC appearance



1	<p>Forty-six 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (for OADM scenarios only) • GE-DWDM optical module • GE copper module 	2	<p>Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario)
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ stack cables (only applicable to zero-configuration stacking) • H87MMA5671A2 GPON optical module <p>NOTE</p> <p>If one port uses a GPON optical module, other ports cannot be used.</p>	4	<p>One console port</p>
5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>One USB port</p>

7	Ground screw NOTE It is used with a ground cable .	8	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	10	AC socket NOTE It is used with an AC power cable .

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-337](#) describes the attributes of a 100/1000BASE-X port.

Table 4-337 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-338](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-338 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-339](#).

Table 4-339 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

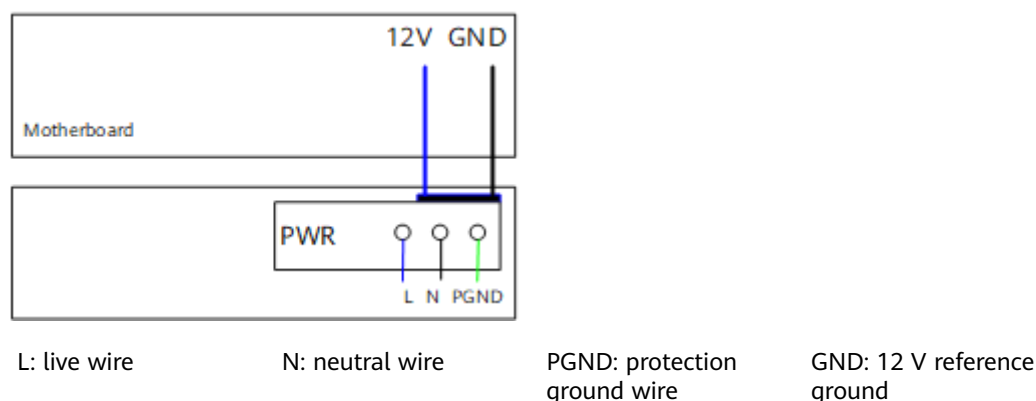
The S5720-52X-LI-48S-AC has the same types of indicators as the S5720-28X-LI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-LI-48S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

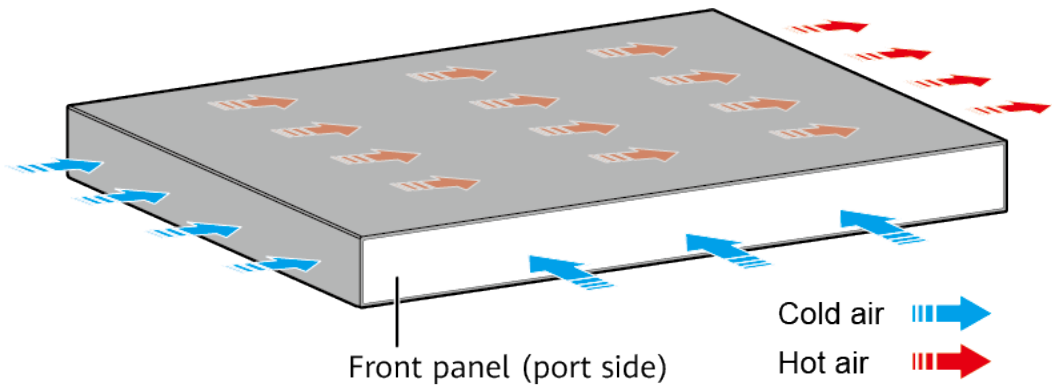
Figure 4-129 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-129 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-52X-LI-48S-AC has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-340](#) lists technical specifications of the S5720-52X-LI-48S-AC.

Table 4-340 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	34.91 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.9 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	5.25 kg (11.57 lb)
Stack ports	GE optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	83 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	68 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010813

4.9 S5720S-LI

4.9.1 S5720S-12TP-LI-AC

Version Mapping

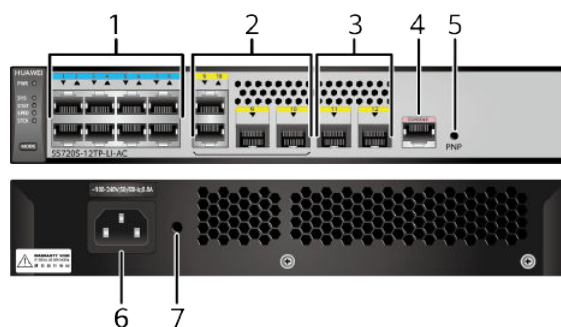
Table 4-341 lists the mapping between the S5720S-12TP-LI-AC chassis and software versions.

Table 4-341 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-12TP-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-130 S5720S-12TP-LI-AC appearance



1	Eight 10/100/1000BASE-T ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km)
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3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	<p>One console port</p>
5	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-342](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-342 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission

speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-343](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-343 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-344](#).

Table 4-344 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

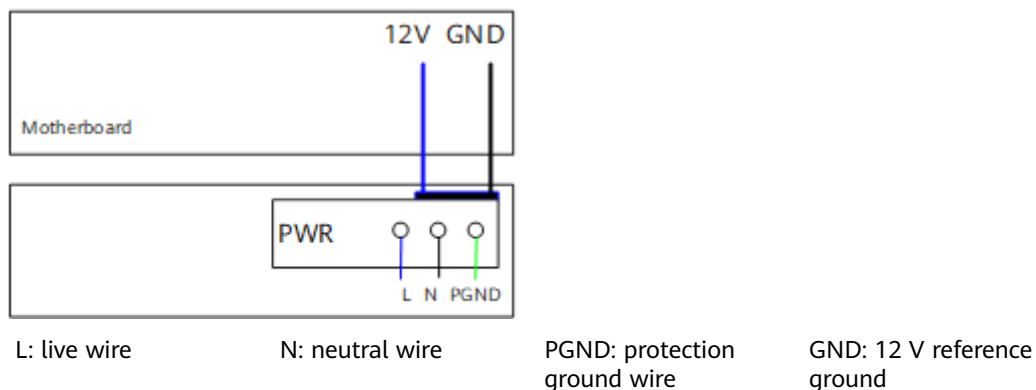
The S5720S-12TP-LI-AC has the same types of indicators as the S5720-12TP-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-12TP-LI-AC has a built-in power module and does not support pluggable power modules.

[Figure 4-131](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-131 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-12TP-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-345](#) lists technical specifications of the S5720S-12TP-LI-AC.

Table 4-345 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	23.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.8 in. x 7.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 186.7 mm (1.72 in. x 9.8 in. x 7.35 in.)
Weight (with packaging)	1.8 kg (3.97 lb)
Stack ports	Eight 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	12.85 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	10.39 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010568

4.9.2 S5720S-12TP-PWR-LI-AC

Version Mapping

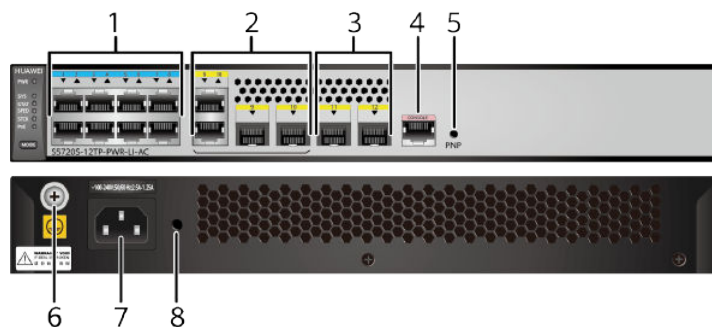
[Table 4-346](#) lists the mapping between the S5720S-12TP-PWR-LI-AC chassis and software versions.

Table 4-346 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-12TP-PWR-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-132 S5720S-12TP-PWR-LI-AC appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	<p>Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km)
3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	One console port

5	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-347](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-347 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-348](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-348 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-349](#).

Table 4-349 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

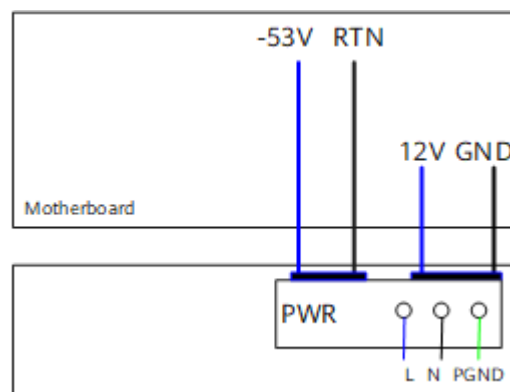
The S5720S-12TP-PWR-LI-AC has the same types of indicators as the S5720-12TP-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-12TP-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

Figure 4-133 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-133 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720S-12TP-PWR-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-350 lists technical specifications of the S5720S-12TP-PWR-LI-AC.

Table 4-350 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	23.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 320.0 mm x 220.0 mm (1.72 in. x 12.6 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 320.0 mm x 228.3 mm (1.72 in. x 12.6 in. x 8.99 in.)
Weight (with packaging)	3 kg (6.62 lb)
Stack ports	Eight 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> Not providing the PoE function: 15.61 W 100% PoE loads: 160.5 W (system power consumption: 37.3 W, PoE: 123.2 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	14.57 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010571

4.9.3 S5720S-28TP-PWR-LI-ACL

Version Mapping

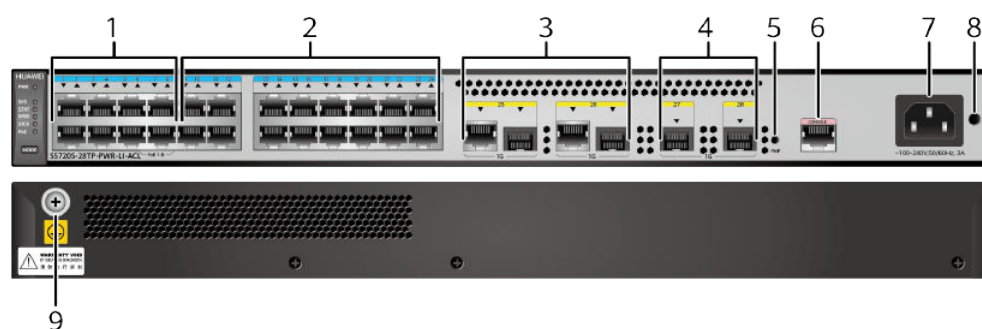
Table 4-351 lists the mapping between the S5720S-28TP-PWR-LI-ACL chassis and software versions.

Table 4-351 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28TP-PWR-LI-ACL	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-134 S5720S-28TP-PWR-LI-ACL appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	Sixteen 10/100/1000BASE-T ports
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3	<p>Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km) 	4	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
5	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>One console port</p>
7	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>

9	Ground screw NOTE It is used with a ground cable .	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-352](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-352 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-353](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-353 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-354](#).

Table 4-354 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

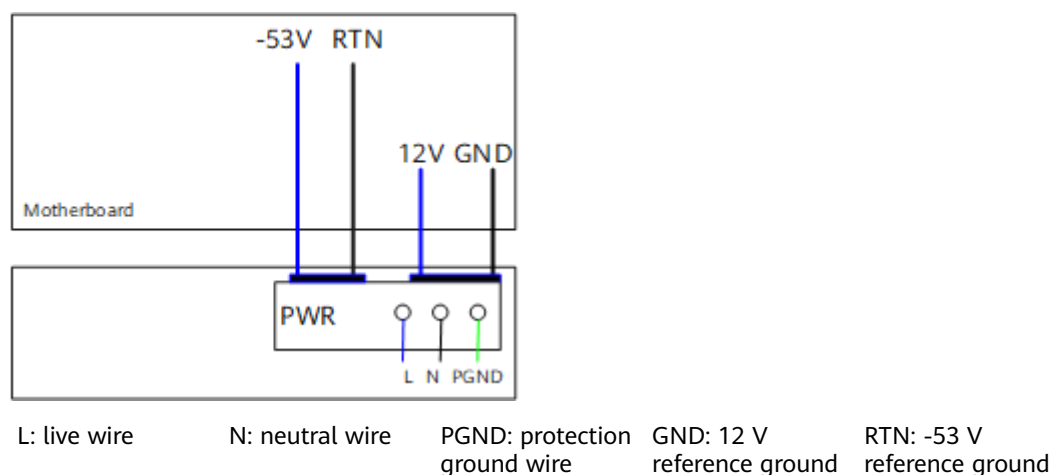
The S5720S-28TP-PWR-LI-ACL has the same types of indicators as the S5720-28TP-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28TP-PWR-LI-ACL has a built-in power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

[Figure 4-135](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-135 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720S-28TP-PWR-LI-ACL has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-355 lists technical specifications of the S5720S-28TP-PWR-LI-ACL.

Table 4-355 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	42 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> Not providing the PoE function: 24.4 W 100% PoE loads: 165.6 W (system power consumption: 42.4 W, PoE: 123.2 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	19.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010635

4.9.4 S5720S-28P-LI-AC

Version Mapping

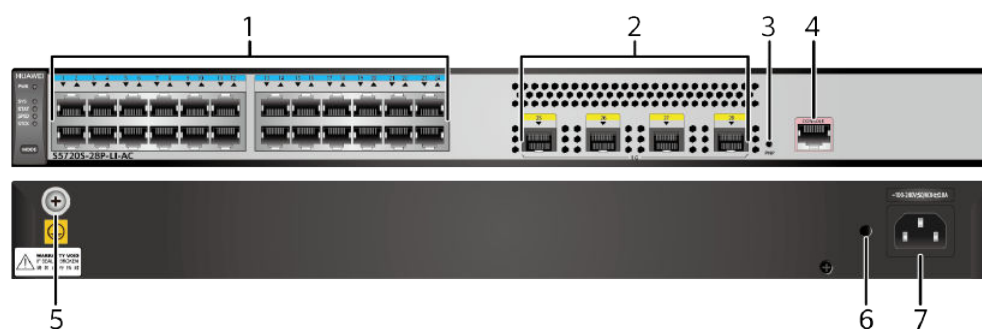
Table 4-356 lists the mapping between the S5720S-28P-LI-AC chassis and software versions.

Table 4-356 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28P-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-136 S5720S-28P-LI-AC appearance



1	<p>Twenty-four 10/100/1000BASE-T ports</p>	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>

5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-357](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-357 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-358](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-358 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-359](#).

Table 4-359 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

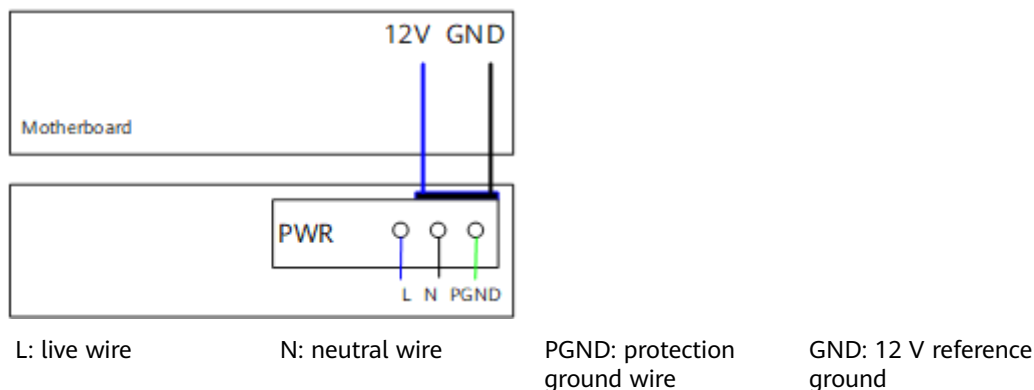
The S5720S-28P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720S-28P-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28P-LI-AC has a built-in power module and does not support pluggable power modules.

[Figure 4-137](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-137 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-28P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-360 lists technical specifications of the S5720S-28P-LI-AC.

Table 4-360 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	3.9 kg (8.6 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	20.2 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	16.1 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distances.

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010578

4.9.5 S5720SV2-28P-LI-AC

Version Mapping

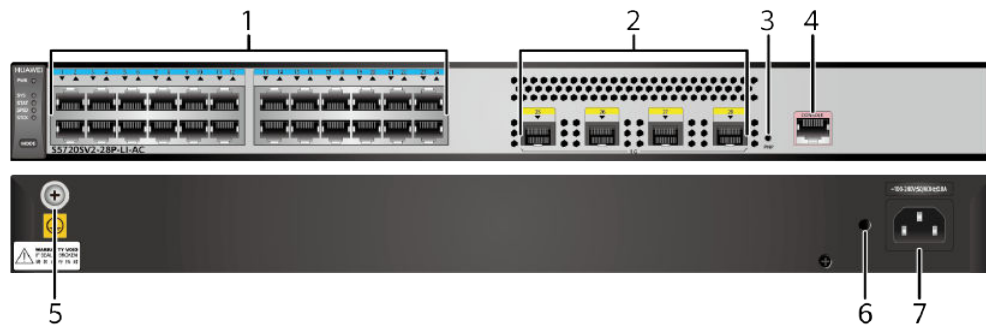
Table 4-361 lists the mapping between the S5720SV2-28P-LI-AC chassis and software versions.

Table 4-361 Version mapping

Series	Model	Software Version
S5720S-LI	S5720SV2-28P-LI-AC	V200R012C20 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-138 S5720SV2-28P-LI-AC appearance



1	<p>Twenty-four 10/100/1000BASE-T ports</p>	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) • H87MMA5671A2 GPON optical module <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	6	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>
7	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-362](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-362 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-363](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-363 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-364](#).

Table 4-364 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

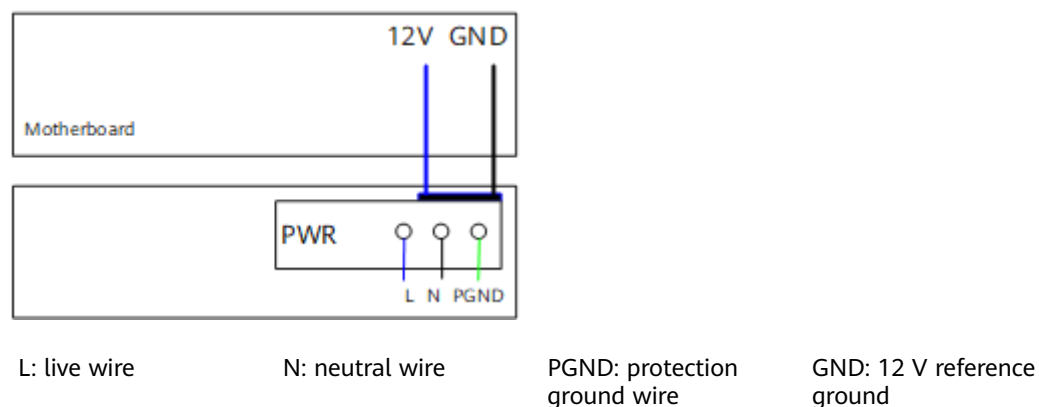
Indicator Description

The S5720SV2-28P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720SV2-28P-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720SV2-28P-LI-AC has a built-in power module and does not support pluggable power modules.

[Figure 4-139](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-139 Power supply mode of a built-in AC power module

Heat Dissipation

The S5720SV2-28P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-365 lists technical specifications of the S5720SV2-28P-LI-AC.

Table 4-365 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	3.9 kg (8.6 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput)	20.2 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	16.1 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010852

4.9.6 S5720S-28P-PWR-LI-AC

Version Mapping

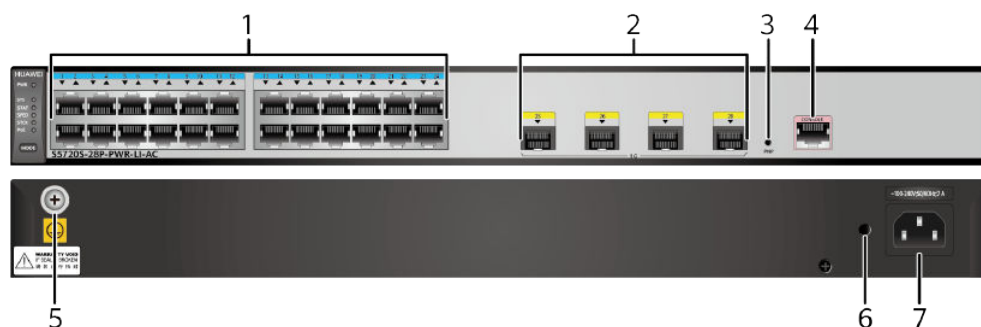
[Table 4-366](#) lists the mapping between the S5720S-28P-PWR-LI-AC chassis and software versions.

Table 4-366 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28P-PWR-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-140 S5720S-28P-PWR-LI-AC appearance



1	<p>Twenty-four PoE + 10/100/1000BASE-T ports</p>	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>

5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-367](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-367 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-368](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-368 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-369](#).

Table 4-369 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

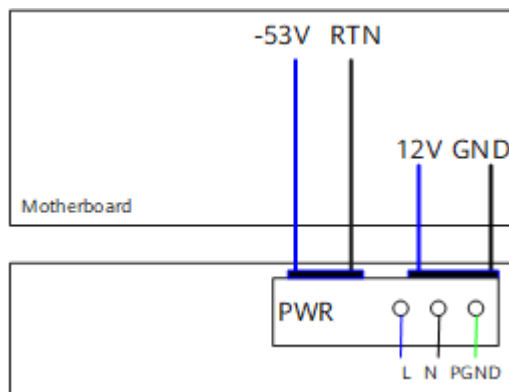
The S5720S-28P-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720S-28P-PWR-LI-AC does not have an RPS or USB indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

[Figure 4-141](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

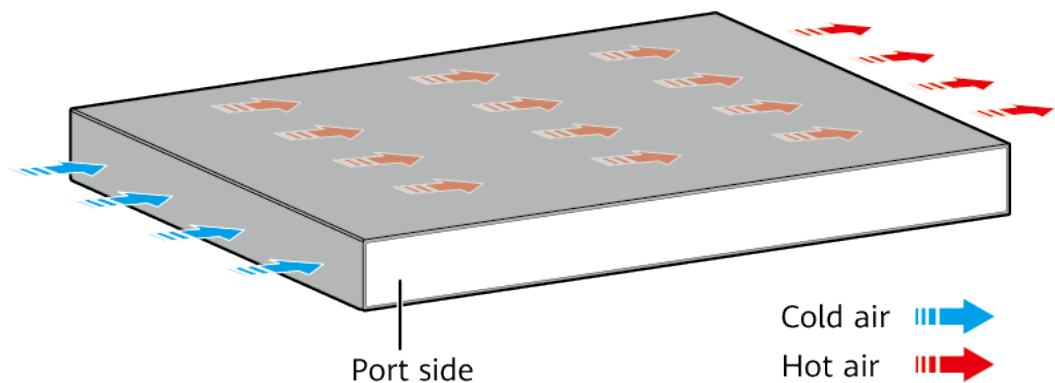
Figure 4-141 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720S-28P-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-370 lists technical specifications of the S5720S-28P-PWR-LI-AC.

Table 4-370 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.2 kg (11.45 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 40.4 W 100% PoE loads: 446.7 W (system power consumption: 77.1 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	26 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010589

4.9.7 S5720S-52P-LI-AC

Version Mapping

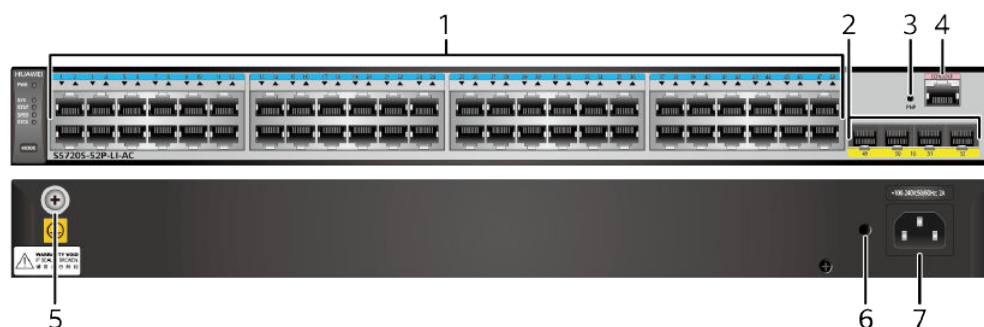
Table 4-371 lists the mapping between the S5720S-52P-LI-AC chassis and software versions.

Table 4-371 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-52P-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-142 S5720S-52P-LI-AC appearance



1	<p>Forty-eight 10/100/1000BASE-T ports</p>	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>

5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-372](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-372 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-373](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-373 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-374](#).

Table 4-374 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

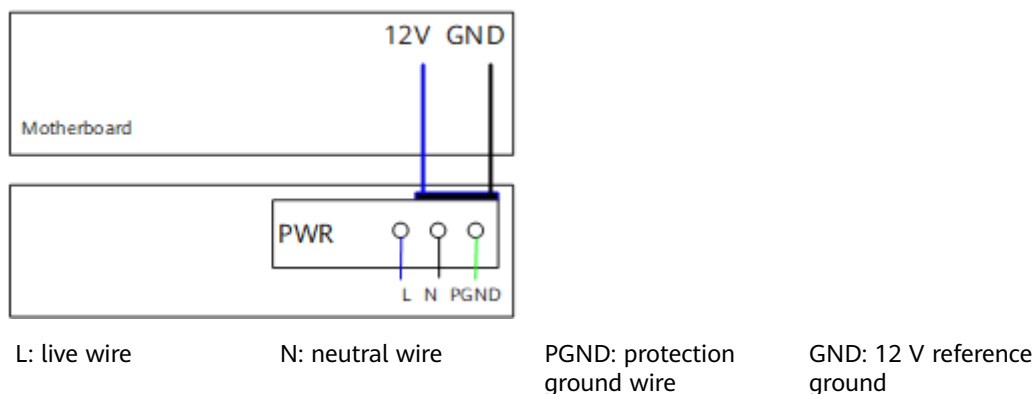
The S5720S-52P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720S-52P-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52P-LI-AC has a built-in power module and does not support pluggable power modules.

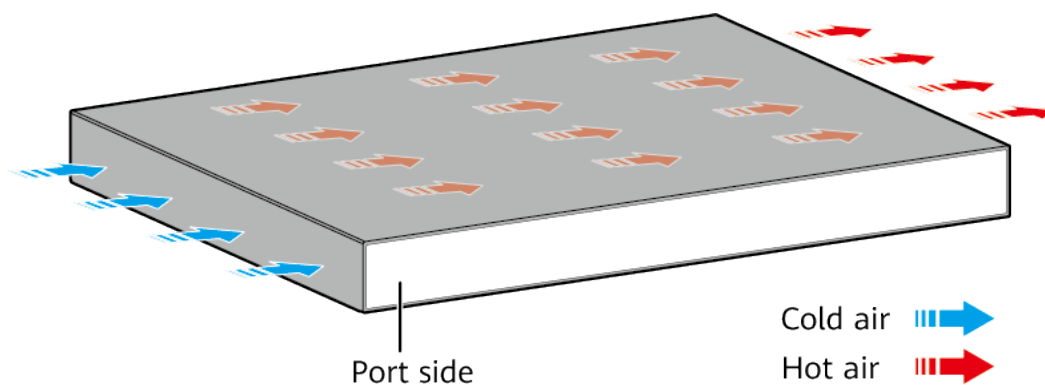
[Figure 4-143](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-143 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-52P-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-375 lists technical specifications of the S5720S-52P-LI-AC.

Table 4-375 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	47.3 W
Typical power consumption (30% of traffic load)	29.9 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010601

4.9.8 S5720SV2-52P-LI-AC

Version Mapping

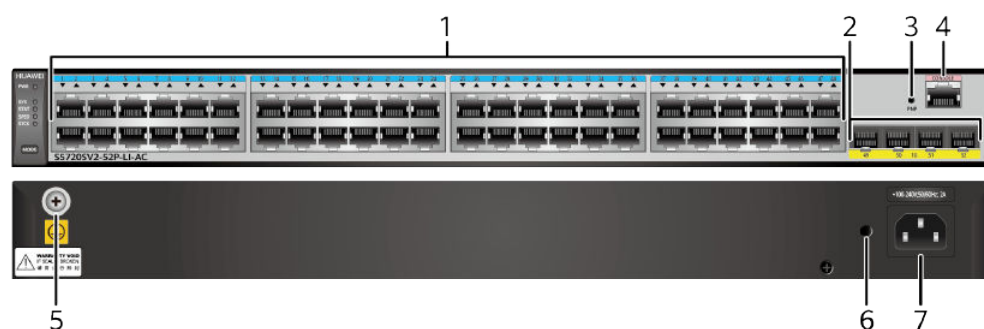
Table 4-376 lists the mapping between the S5720SV2-52P-LI-AC chassis and software versions.

Table 4-376 Version mapping

Series	Model	Software Version
S5720S-LI	S5720SV2-52P-LI-AC	V200R012C20 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-144 S5720SV2-52P-LI-AC appearance



1	<p>Forty-eight 10/100/1000BASE-T ports</p>	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) • H87MMA5671A2 GPON optical module <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-377](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-377 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-378](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-378 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-379](#).

Table 4-379 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

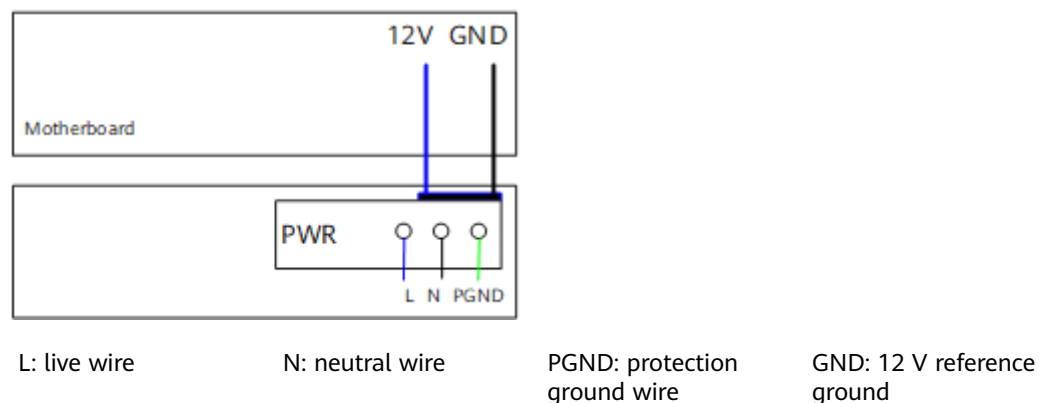
Indicator Description

The S5720SV2-52P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720SV2-52P-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

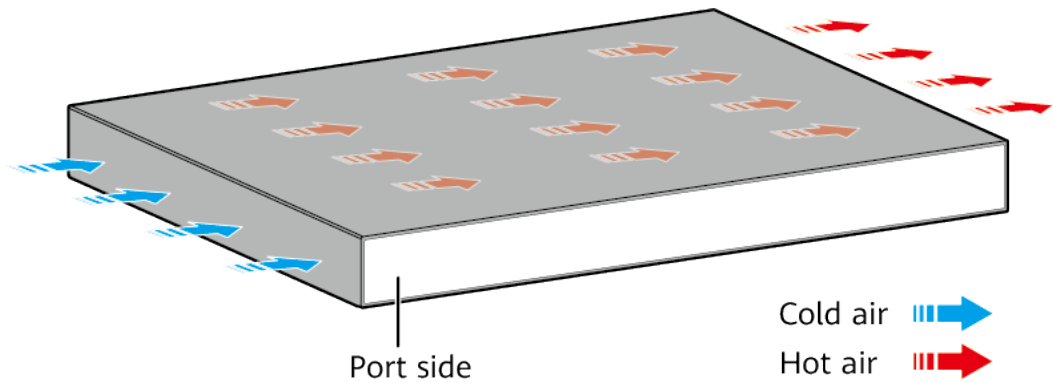
The S5720SV2-52P-LI-AC has a built-in power module and does not support pluggable power modules.

[Figure 4-145](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-145 Power supply mode of a built-in AC power module

Heat Dissipation

The S5720SV2-52P-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-380 lists technical specifications of the S5720SV2-52P-LI-AC.

Table 4-380 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)

Item	Description
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	47.3 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010853

4.9.9 S5720S-52P-PWR-LI-AC

Version Mapping

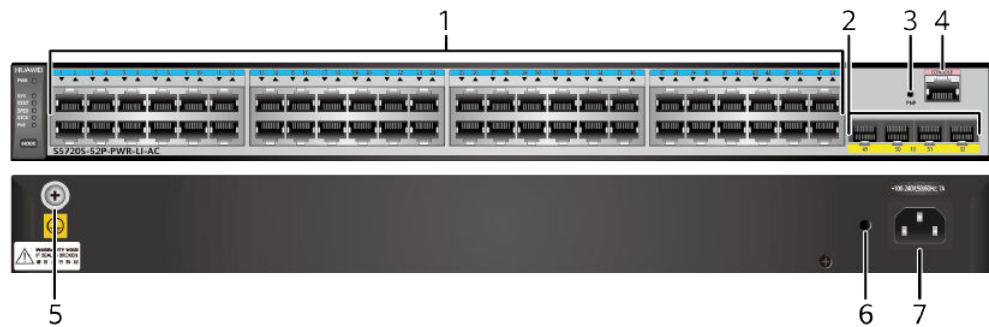
[Table 4-381](#) lists the mapping between the S5720S-52P-PWR-LI-AC chassis and software versions.

Table 4-381 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-52P-PWR-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-146 S5720S-52P-PWR-LI-AC appearance



1	<p>Forty-eight PoE+ 10/100/1000BASE-T ports</p>	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>

5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-382](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-382 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-383](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-383 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-384](#).

Table 4-384 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

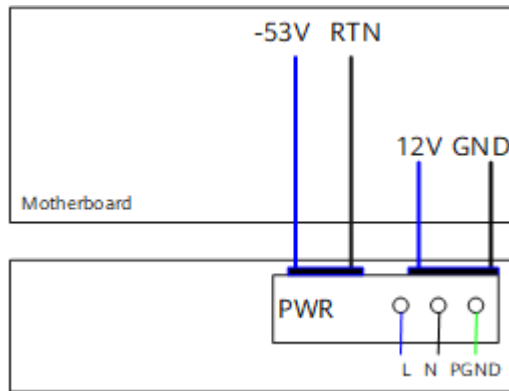
The S5720S-52P-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720S-52P-PWR-LI-AC does not have an RPS or USB indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

[Figure 4-147](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

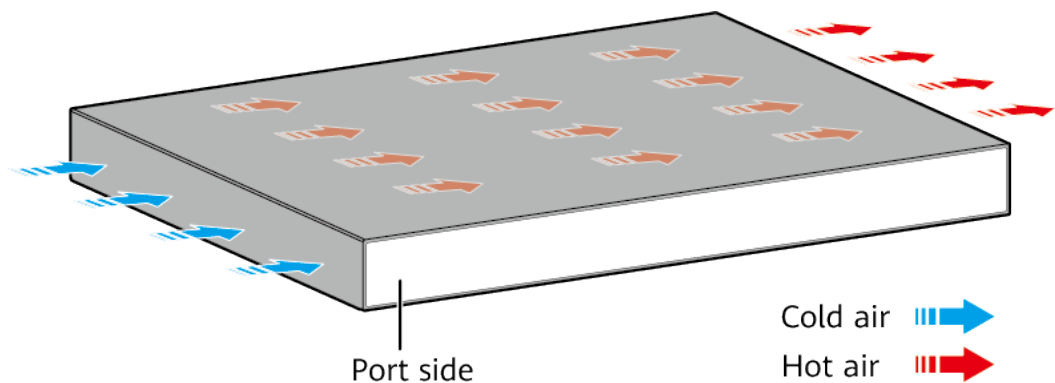
Figure 4-147 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720S-52P-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-385 lists technical specifications of the S5720S-52P-PWR-LI-AC.

Table 4-385 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.6 kg (12.35 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 61.7 W 100% PoE loads: 461.8 W (system power consumption: 92.2 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010613

4.9.10 S5720S-28X-LI-AC

Version Mapping

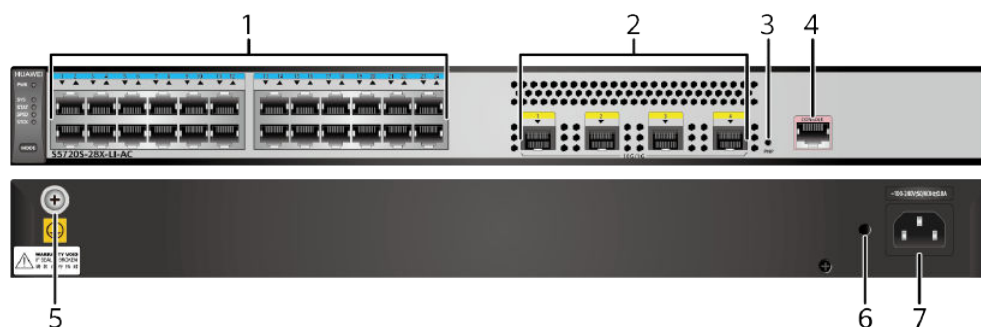
[Table 4-386](#) lists the mapping between the S5720S-28X-LI-AC chassis and software versions.

Table 4-386 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28X-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-148 S5720S-28X-LI-AC appearance



1	<p>Twenty-four 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>A switch can use a maximum of two 10GE optical modules with 40 km or longer transmission distances.</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>

5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-387](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-387 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-388](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-388 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-389](#).

Table 4-389 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

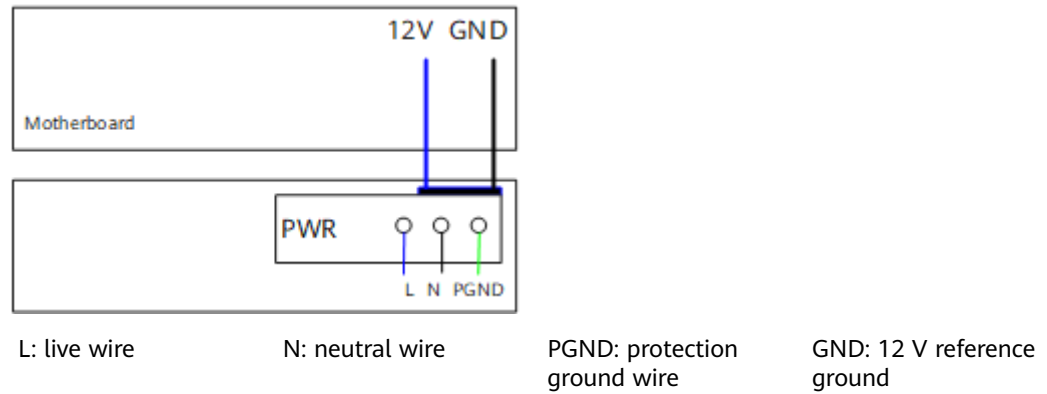
The S5720S-28X-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720S-28X-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28X-LI-AC has a built-in power module and does not support pluggable power modules.

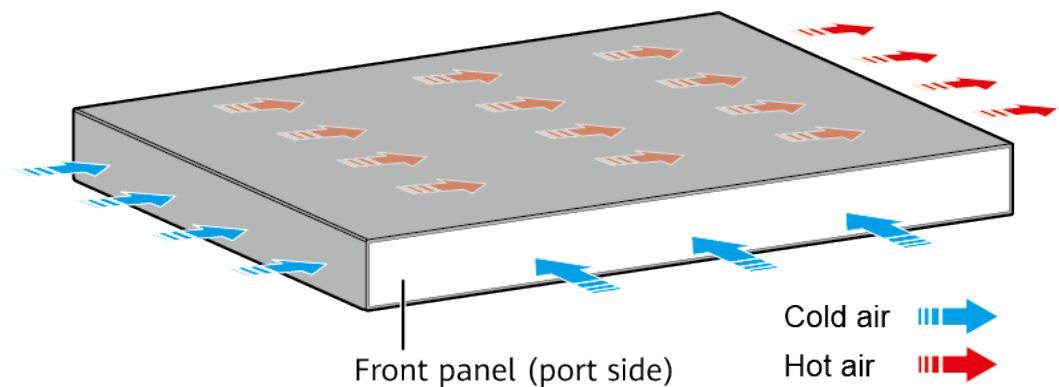
[Figure 4-149](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-149 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-28X-LI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-390 lists technical specifications of the S5720S-28X-LI-AC.

Table 4-390 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	3.9 kg (8.6 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	29.5 W
Typical power consumption (30% of traffic load)	21.4 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010585

4.9.11 S5720S-28X-LI-24S-AC

Version Mapping

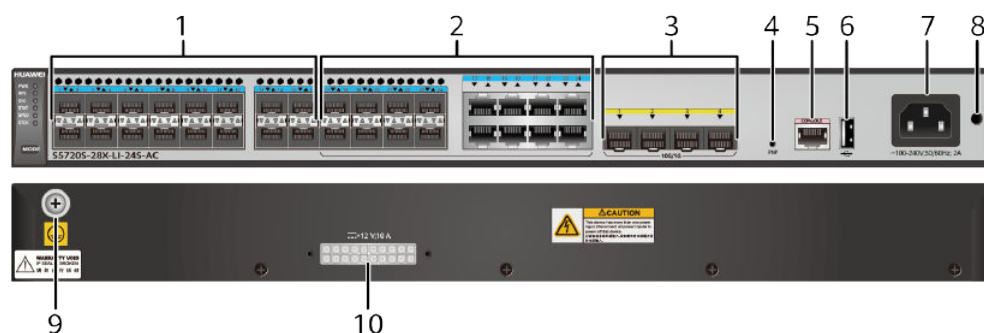
Table 4-391 lists the mapping between the S5720S-28X-LI-24S-AC chassis and software versions.

Table 4-391 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28X-LI-24S-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-150 S5720S-28X-LI-24S-AC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	One USB port
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-392](#) describes the attributes of a 100/1000BASE-X port.

Table 4-392 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-393](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-393 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-394](#).

Table 4-394 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

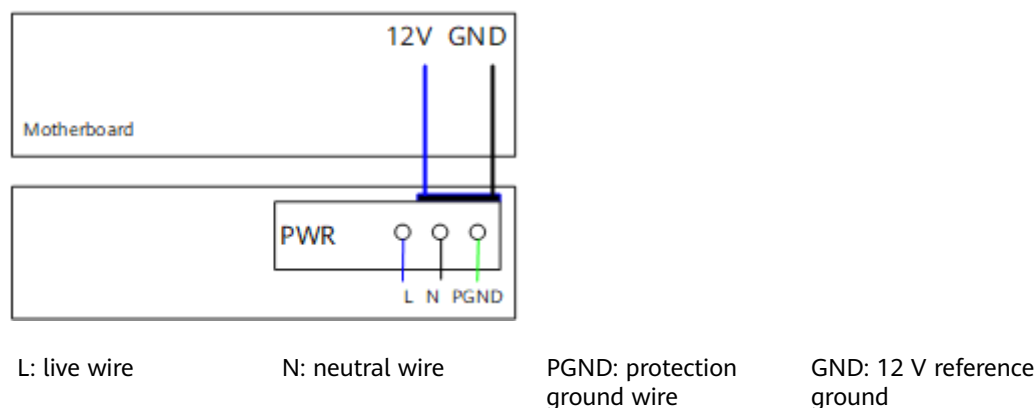
The S5720S-28X-LI-24S-AC has the same types of indicators as the S5720-28X-LI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28X-LI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

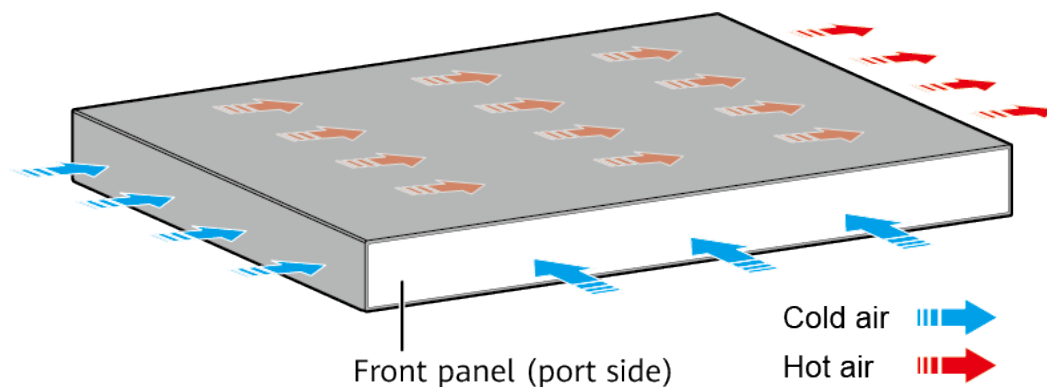
Figure 4-151 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-151 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-28X-LI-24S-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-395 lists technical specifications of the S5720S-28X-LI-24S-AC.

Table 4-395 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.1 kg (9.04 lb)
Stack ports	GE SFP optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	41.7 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	28.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010630

4.9.12 S5720S-28X-PWR-LI-AC

Version Mapping

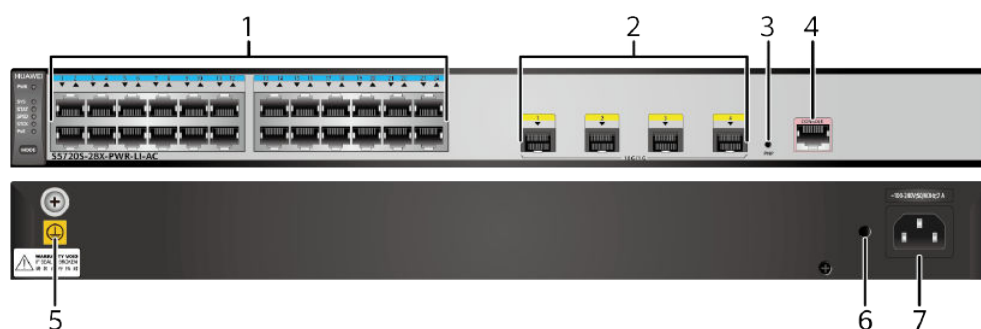
[Table 4-396](#) lists the mapping between the S5720S-28X-PWR-LI-AC chassis and software versions.

Table 4-396 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28X-PWR-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-152 S5720S-28X-PWR-LI-AC appearance



1	<p>Twenty-four PoE + 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	6	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>

7	AC socket NOTE It is used with an AC power cable .	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-397](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-397 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-398](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-398 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 4-399](#).

Table 4-399 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

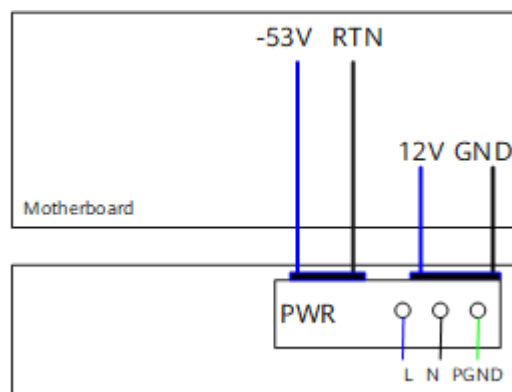
The S5720S-28X-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720S-28X-PWR-LI-AC does not have an RPS or USB indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

[Figure 4-153](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

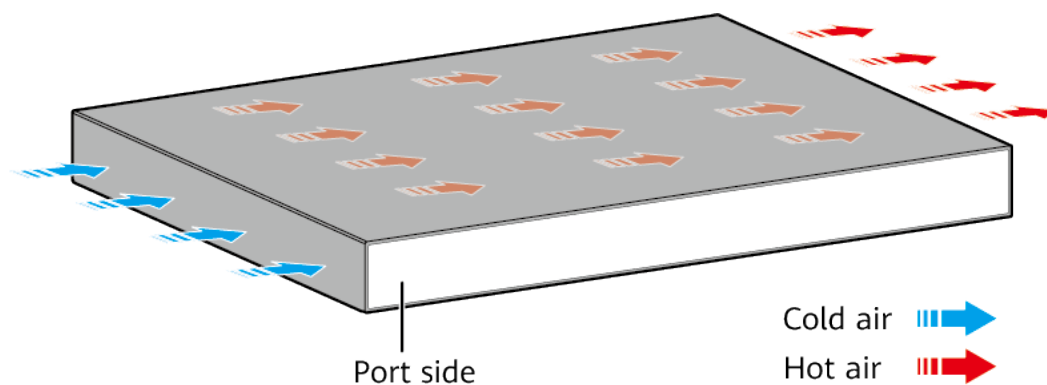
Figure 4-153 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720S-28X-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-400 lists technical specifications of the S5720S-28X-PWR-LI-AC.

Table 4-400 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.2 kg (11.45 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Not providing the PoE function: 42.7 W• 100% PoE loads: 448.5 W (system power consumption: 78.9 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.5 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.1 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010597

4.9.13 S5720S-52X-LI-AC

Version Mapping

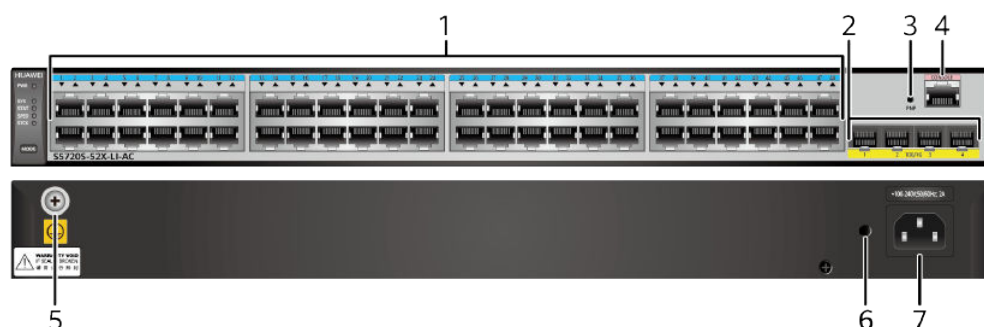
Table 4-401 lists the mapping between the S5720S-52X-LI-AC chassis and software versions.

Table 4-401 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-52X-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-154 S5720S-52X-LI-AC appearance



1	<p>Forty-eight 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	6	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>

7	AC socket NOTE It is used with an AC power cable .	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-402](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-402 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-403](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-403 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 4-404](#).

Table 4-404 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

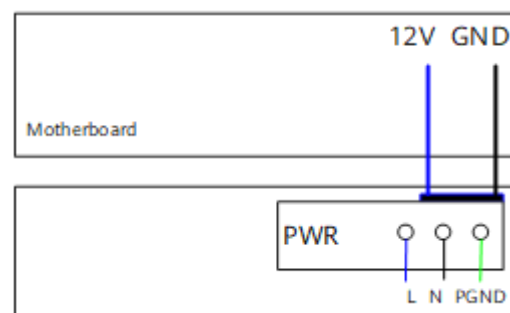
The S5720S-52X-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720S-52X-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52X-LI-AC has a built-in power module and does not support pluggable power modules.

[Figure 4-155](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-155 Power supply mode of a built-in AC power module



L: live wire

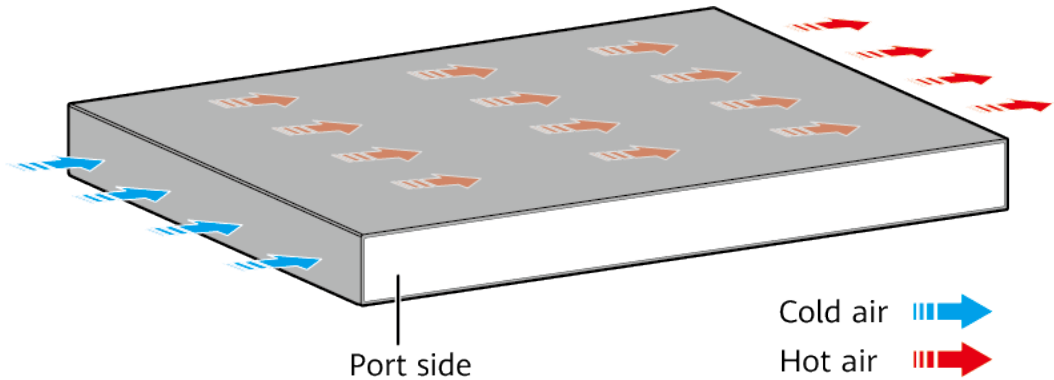
N: neutral wire

PGND: protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720S-52X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-405](#) lists technical specifications of the S5720S-52X-LI-AC.

Table 4-405 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	50.3 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	31.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010604

4.9.14 S5720S-52X-PWR-LI-AC

Version Mapping

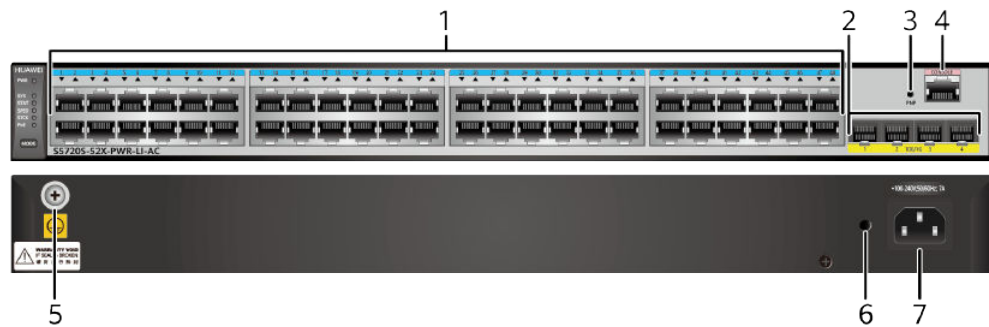
[Table 4-406](#) lists the mapping between the S5720S-52X-PWR-LI-AC chassis and software versions.

Table 4-406 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-52X-PWR-LI-AC	V200R010C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-156 S5720S-52X-PWR-LI-AC appearance



1	<p>Forty-eight PoE+ 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	6	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>

7	AC socket NOTE It is used with an AC power cable .	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-407](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-407 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-408](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-408 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 4-409](#).

Table 4-409 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

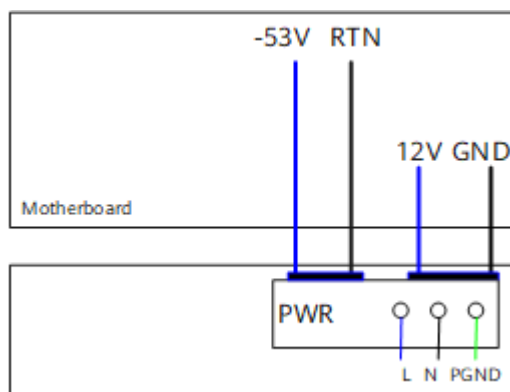
The S5720S-52X-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720S-52X-PWR-LI-AC does not have an RPS or USB indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

[Figure 4-157](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

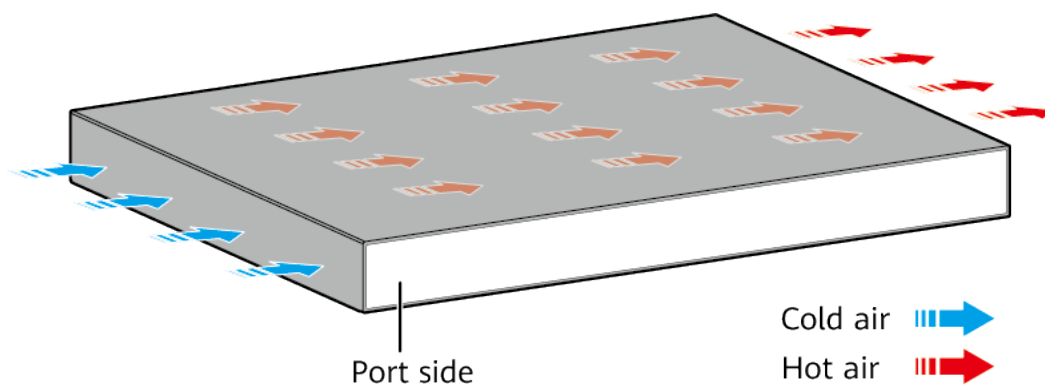
Figure 4-157 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720S-52X-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-410 lists technical specifications of the S5720S-52X-PWR-LI-AC.

Table 4-410 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.6 kg (12.35 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 63.5 W 100% PoE loads: 464.3 W (system power consumption: 94.7 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010617

4.10 S5700-SI

4.10.1 S5700-24TP-SI-AC

Version Mapping

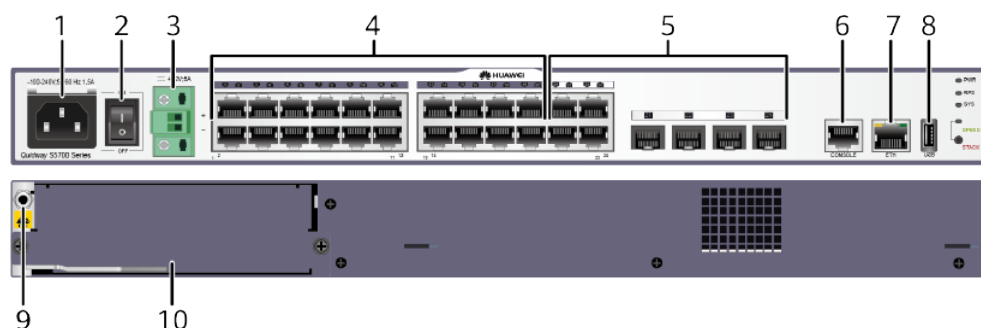
[Table 4-411](#) lists the mapping between the S5700-24TP-SI-AC chassis and software versions.

Table 4-411 Version mapping

Series	Model	Software Version
S5700-SI	S5700-24TP-SI-AC	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-158 S5700-24TP-SI-AC appearance



1	AC socket NOTE It is used with an AC power cable .	2	Power switch
---	---	---	--------------

3	<p>Backup power socket</p> <p>NOTE This socket can be connected to a backup power supply unit. The backup power supply unit must provide 12 V DC output voltage (ranging from 11 V to 13 V) and a minimum power of 100 W.</p>	4	Twenty 10/100/1000BASE-T ports
5	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module 	6	One console port
7	One ETH management port	8	One USB port
9	<p>ESD jack</p> <p>NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.</p>	10	<p>Rear card slot</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> • 8.30 ES5D00ETPC00 (Stack Rear Card)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-412](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-412 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one

internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-413](#).

Table 4-413 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the

Configuration Guide - Basic Configurations. **Table 4-414** describes the attributes of an ETH management port.

Table 4-414 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-159 Indicators on the S5700-24TP-SI-AC

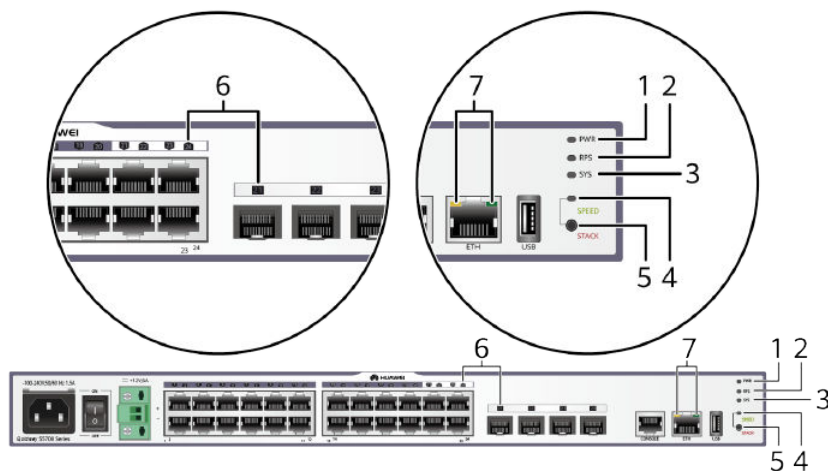


Table 4-415 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the backup power.
2	RPS: backup power supply indicator	Green	<ul style="list-style-type: none">Off: No backup power is connected to the switch or the backup power is faulty.Steady on: The backup power is connected to the switch.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none">Steady on: The system is not operating properly or is starting.Slow blinking: The system is running normally.Fast blinking: The system is copying the system software and configuration file from a USB flash drive.
		Yellow	<ul style="list-style-type: none">Steady on: The system is performing self-check during startup.Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none">Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.

Number	Indicator/ Button	Color	Description
4	Mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	Mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port. When you press this button a second time, the mode indicator turns red and the service port indicators show the stack status. When you press this button a third time, the mode indicator turns off. <p>If you do not press the button within 45 seconds, the mode indicator restores to status mode.</p>
6	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-416 .	
7	ETH indicator	-	Off: No link is established on the port.
		Green	Steady on: The port is connected.
		Yellow	Blinking: The port is sending or receiving data.

Table 4-416 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-24TP-SI-AC has a built-in power module and can connect to an external DC power supply for power redundancy.

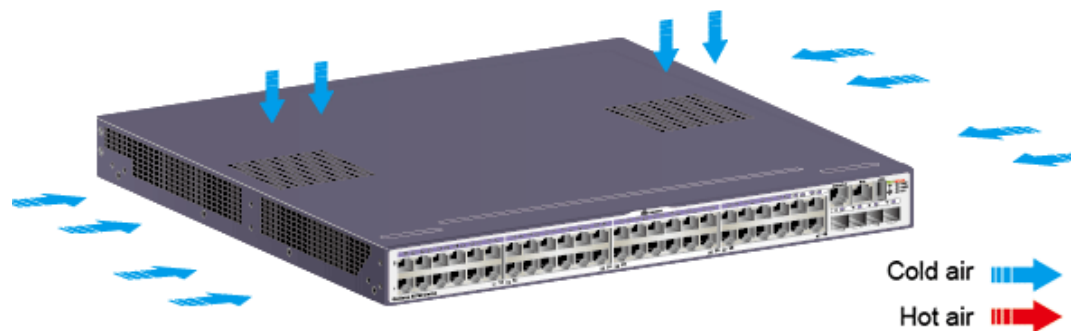
Heat Dissipation

NOTE

The fans can work in the intelligent mode or forcible mode:

- In the intelligent mode, the fans start to operate only when the ambient temperature goes higher than a specified value. In V200R003C00 and later versions, you can run the **display fan speed-adjust threshold minus** command on the switches that use the intelligent heat dissipation mode to view the temperature thresholds for the fans to start and stop running. The **set fan speed-adjust threshold minus** command can be used to lower these temperature thresholds.
- In the forcible mode, the fans operate immediately when the switch starts. You can run the **display fan speed-adjust threshold minus** on the switches that support intelligent fan speed adjustment to view the temperature thresholds for the fans to increase and decrease rotating speeds. The **set fan speed-adjust threshold minus** command can lower these temperature thresholds.

The S5700-24TP-SI-AC has a built-in fan for intelligent air cooling. Air flows in from the left, right, and top sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-417](#) lists technical specifications of the S5700-24TP-SI-AC.

Table 4-417 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	37 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999

Item	Description
Service port surge protection	±2 kV in common mode
Power supply surge protection	±6 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight	<ul style="list-style-type: none"> • Empty: ≤ 5 kg (11.02 lb) • Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	40 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Silent
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352360

4.10.2 S5700-24TP-SI-DC

Version Mapping

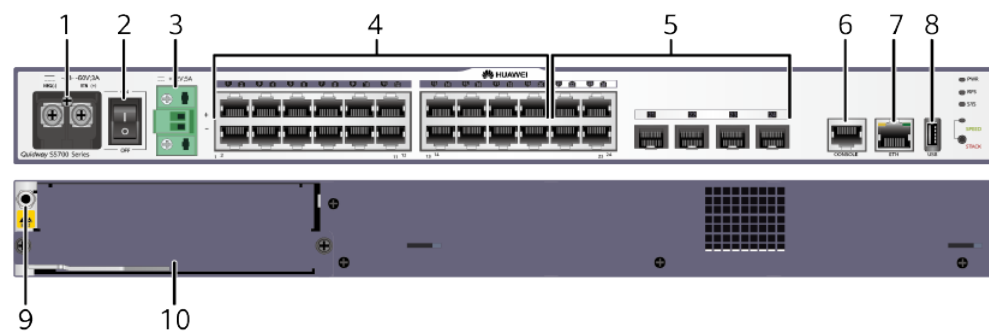
Table 4-418 lists the mapping between the S5700-24TP-SI-DC chassis and software versions.

Table 4-418 Version mapping

Series	Model	Software Version
S5700-SI	S5700-24TP-SI-DC	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-160 S5700-24TP-SI-DC appearance



1	DC power terminal NOTE It is used together with a DC Power Cable .	2	Power switch
3	Backup power socket NOTE This socket can be connected to a backup power supply unit. The backup power supply unit must provide 12 V DC output voltage (ranging from 11 V to 13 V) and a minimum power of 100 W.	4	Twenty 10/100/1000BASE-T ports

5	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module 	6	One console port
7	One ETH management port	8	One USB port
9	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	10	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.30 ES5D00ETPC00 (Stack Rear Card)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-419** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-419 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-420](#).

Table 4-420 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-421](#) describes the attributes of an ETH management port.

Table 4-421 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-24TP-SI-DC has the same types of indicators as the S5700-24TP-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-24TP-SI-DC has a built-in power module and can connect to an external DC power supply for power redundancy.

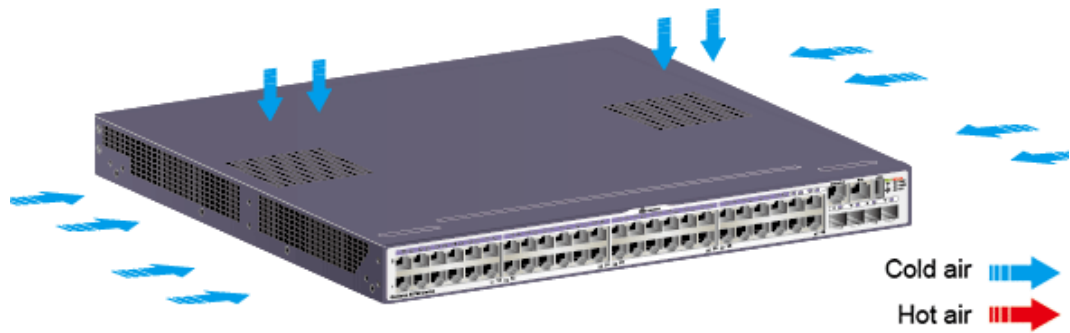
Heat Dissipation

NOTE

The fans can work in the intelligent mode or forcible mode:

- In the intelligent mode, the fans start to operate only when the ambient temperature goes higher than a specified value. In V200R003C00 and later versions, you can run the **display fan speed-adjust threshold minus** command on the switches that use the intelligent heat dissipation mode to view the temperature thresholds for the fans to start and stop running. The **set fan speed-adjust threshold minus** command can be used to lower these temperature thresholds.
- In the forcible mode, the fans operate immediately when the switch starts. You can run the **display fan speed-adjust threshold minus** on the switches that support intelligent fan speed adjustment to view the temperature thresholds for the fans to increase and decrease rotating speeds. The **set fan speed-adjust threshold minus** command can lower these temperature thresholds.

The S5700-24TP-SI-DC has a built-in fan for intelligent air cooling. Air flows in from the left, right, and top sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-422 lists technical specifications of the S5700-24TP-SI-DC.

Table 4-422 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	37 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±2 kV in common mode
Power supply surge protection	±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC

Item	Description
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	40 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Silent
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352343

4.10.3 S5700-24TP-PWR-SI

Version Mapping

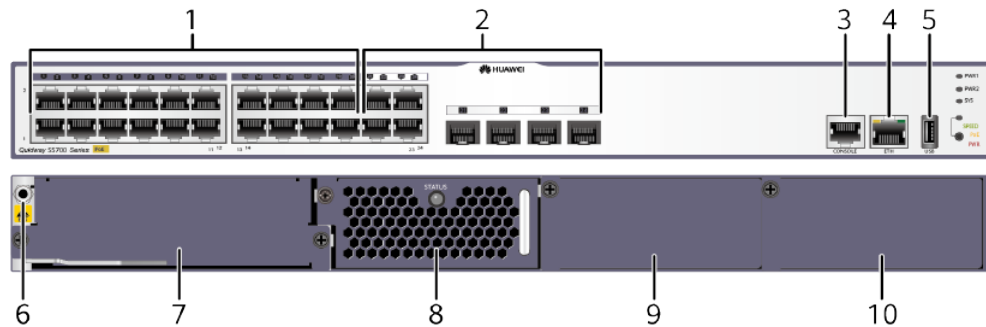
Table 4-423 lists the mapping between the S5700-24TP-PWR-SI chassis and software versions.

Table 4-423 Version mapping

Series	Model	Software Version
S5700-SI	S5700-24TP-PWR-SI	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-161 S5700-24TP-PWR-SI appearance



1	Twenty PoE+ 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.30 ES5D00ETPC00 (Stack Rear Card) 	8	Fan slot NOTE Applicable fan module: <ul style="list-style-type: none"> • CX7E1FANA fan module
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-424](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-424 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-425](#).

Table 4-425 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 4-426** describes the attributes of an ETH management port.

Table 4-426 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-24TP-PWR-SI has the same types of indicators as the S5700-28C-PWR-SI. For details, see [Indicator Description](#).

Power Supply Configuration

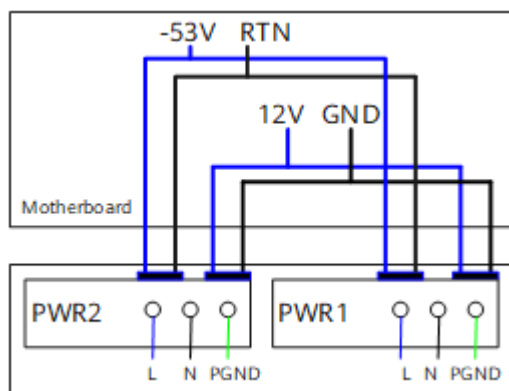
The S5700-24TP-PWR-SI has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 4-427](#) lists its power supply configurations.

Table 4-427 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	-	123.2 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 4
500 W	-	369.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 16 ● 802.3at (30 W per port): 8
500 W	500 W	369.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 12

[Figure 4-162](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

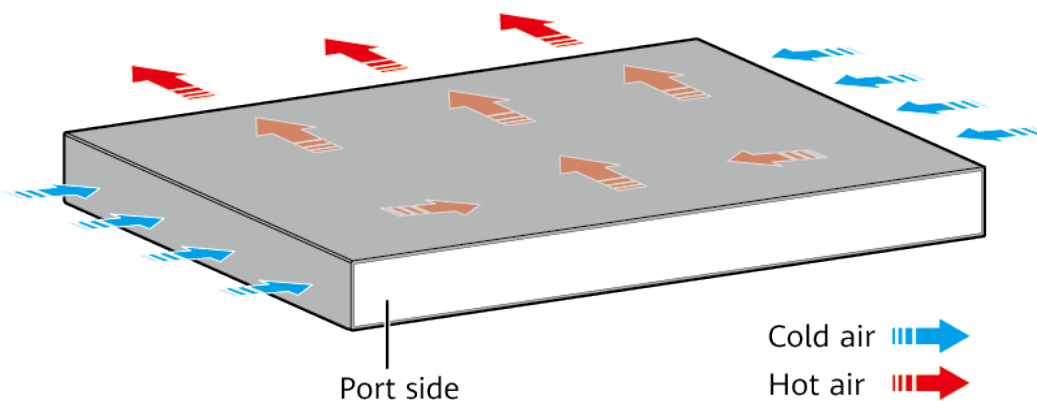
Figure 4-162 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-24TP-PWR-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-428](#) lists technical specifications of the S5700-24TP-PWR-SI.

Table 4-428 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB

Item	Description
Mean time between failures (MTBF)	84.3 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1 kV in common mode
Power supply surge protection	±2 kV in differential mode, ±4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> • Empty: ≤ 5 kg (11.02 lb) • Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	455 W (system power consumption: 85 W, PoE: 370 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352369

4.10.4 S5700-48TP-SI-AC

Version Mapping

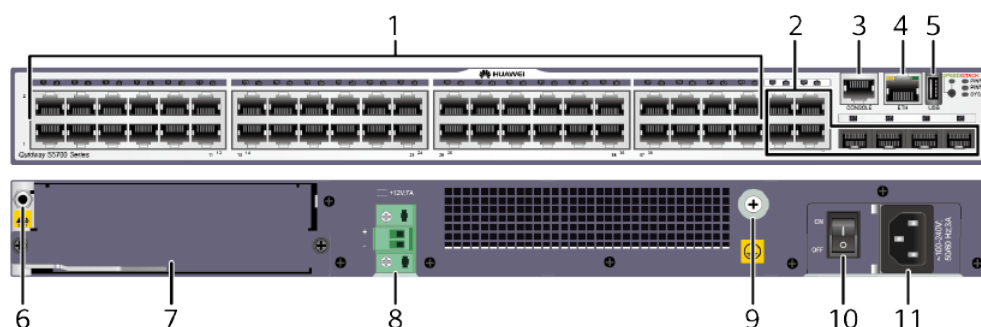
Table 4-429 lists the mapping between the S5700-48TP-SI-AC chassis and software versions.

Table 4-429 Version mapping

Series	Model	Software Version
S5700-SI	S5700-48TP-SI-AC	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-163 S5700-48TP-SI-AC appearance



1	Forty-four 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.30 ES5D00ETPC00 (Stack Rear Card) 	8	Backup power socket NOTE This socket can be connected to a backup power supply unit. The backup power supply unit must provide 12 V DC output voltage (ranging from 11 V to 13 V) and a minimum power of 100 W.
9	Ground screw NOTE It is used with a ground cable .	10	Power switch
11	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-430** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-430 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-431](#).

Table 4-431 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 4-432** describes the attributes of an ETH management port.

Table 4-432 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-48TP-SI-AC has the same types of indicators as the S5700-24TP-SI-AC. For details, see **Indicator Description**.

Power Supply Configuration

The S5700-48TP-SI-AC has a built-in power module and can connect to an external DC power supply for power redundancy.

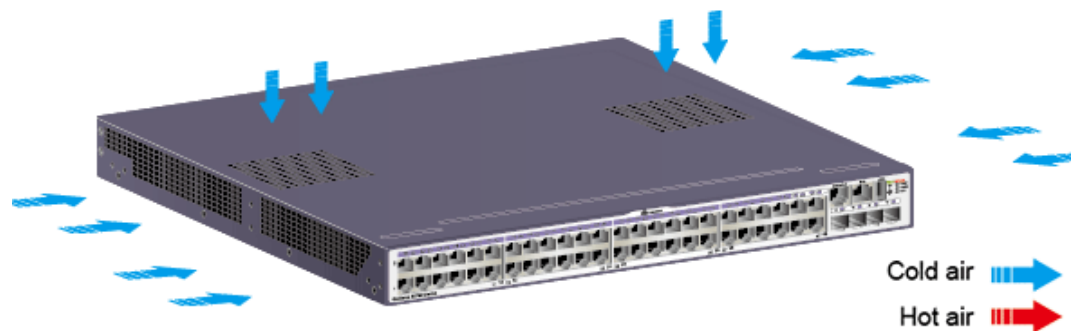
Heat Dissipation

NOTE

The fans can work in the intelligent mode or forcible mode:

- In the intelligent mode, the fans start to operate only when the ambient temperature goes higher than a specified value. In V200R003C00 and later versions, you can run the **display fan speed-adjust threshold minus** command on the switches that use the intelligent heat dissipation mode to view the temperature thresholds for the fans to start and stop running. The **set fan speed-adjust threshold minus** command can be used to lower these temperature thresholds.
- In the forcible mode, the fans operate immediately when the switch starts. You can run the **display fan speed-adjust threshold minus** on the switches that support intelligent fan speed adjustment to view the temperature thresholds for the fans to increase and decrease rotating speeds. The **set fan speed-adjust threshold minus** command can lower these temperature thresholds.

The S5700-48TP-SI-AC has two built-in fans for intelligent air cooling. Air flows in from the left, right, and top sides, and exhausts from the rear panel.



Technical Specifications

[Table 4-433](#) lists technical specifications of the S5700-48TP-SI-AC.

Table 4-433 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	34 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999

Item	Description
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	64 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Silent
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02352353

4.10.5 S5700-48TP-SI-DC

Version Mapping

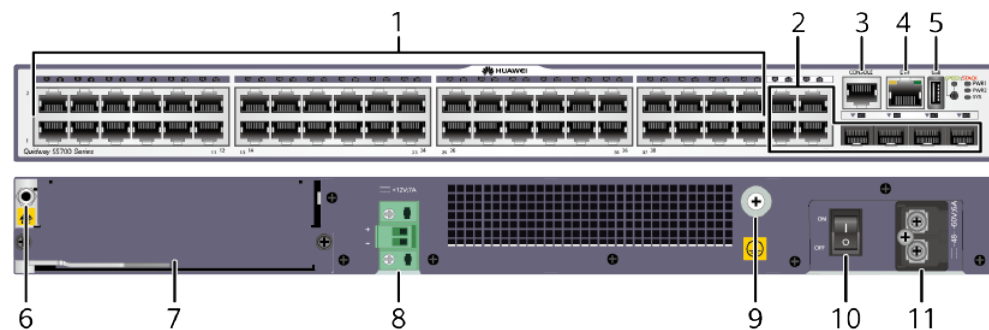
Table 4-434 lists the mapping between the S5700-48TP-SI-DC chassis and software versions.

Table 4-434 Version mapping

Series	Model	Software Version
S5700-SI	S5700-48TP-SI-DC	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-164 S5700-48TP-SI-DC appearance



1	Forty-four 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port

5	One USB port	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.30 ES5D00ETPC00 (Stack Rear Card) 	8	Backup power socket NOTE This socket can be connected to a backup power supply unit. The backup power supply unit must provide 12 V DC output voltage (ranging from 11 V to 13 V) and a minimum power of 100 W.
9	Ground screw NOTE It is used with a ground cable .	10	Power switch
11	DC power terminal NOTE It is used together with a DC Power Cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-435](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-435 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-436](#).

Table 4-436 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-437](#) describes the attributes of an ETH management port.

Table 4-437 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-48TP-SI-DC has the same types of indicators as the S5700-24TP-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-48TP-SI-DC has a built-in power module and can connect to an external DC power supply for power redundancy.

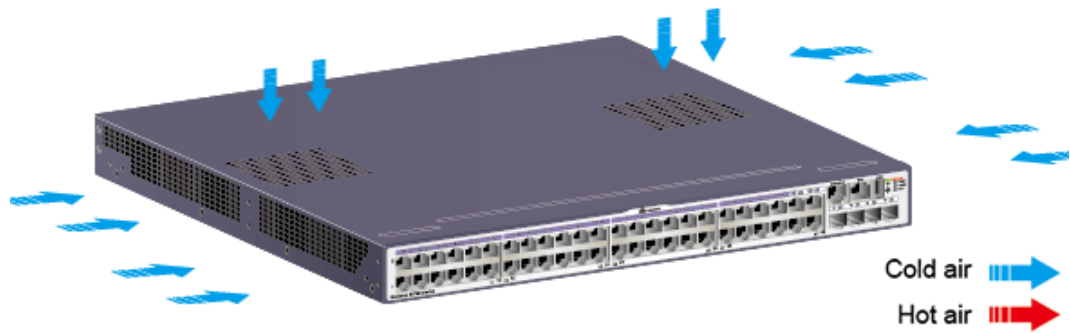
Heat Dissipation

NOTE

The fans can work in the intelligent mode or forcible mode:

- In the intelligent mode, the fans start to operate only when the ambient temperature goes higher than a specified value. In V200R003C00 and later versions, you can run the **display fan speed-adjust threshold minus** command on the switches that use the intelligent heat dissipation mode to view the temperature thresholds for the fans to start and stop running. The **set fan speed-adjust threshold minus** command can be used to lower these temperature thresholds.
- In the forcible mode, the fans operate immediately when the switch starts. You can run the **display fan speed-adjust threshold minus** on the switches that support intelligent fan speed adjustment to view the temperature thresholds for the fans to increase and decrease rotating speeds. The **set fan speed-adjust threshold minus** command can lower these temperature thresholds.

The S5700-48TP-SI-DC has two built-in fans for intelligent air cooling. Air flows in from the left, right, and top sides, and exhausts from the rear panel.



Technical Specifications

Table 4-438 lists technical specifications of the S5700-48TP-SI-DC.

Table 4-438 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	34 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	64 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Silent
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352357

4.10.6 S5700-48TP-PWR-SI

Version Mapping

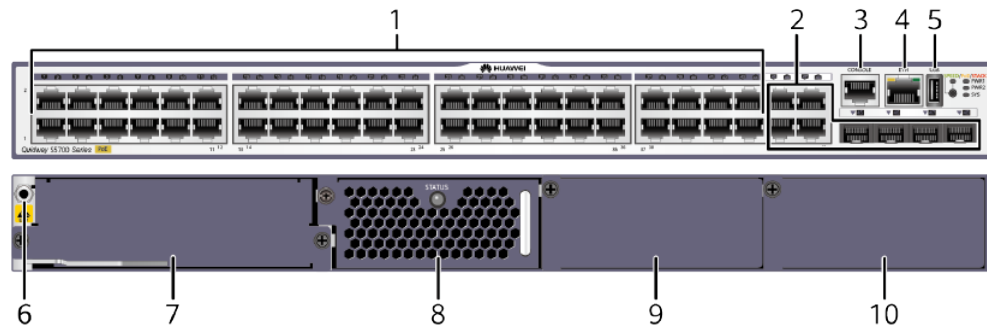
Table 4-439 lists the mapping between the S5700-48TP-PWR-SI chassis and software versions.

Table 4-439 Version mapping

Series	Model	Software Version
S5700-SI	S5700-48TP-PWR-SI	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-165 S5700-48TP-PWR-SI appearance



1	Forty-four PoE+ 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.30 ES5D00ETPC00 (Stack Rear Card) 	8	Fan slot NOTE Applicable fan module: <ul style="list-style-type: none"> • CX7E1FANA fan module
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-440](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-440 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-441](#).

Table 4-441 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 4-442** describes the attributes of an ETH management port.

Table 4-442 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-48TP-PWR-SI has the same types of indicators as the S5700-28C-PWR-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-48TP-PWR-SI has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 4-443](#) lists its power supply configurations.

Table 4-443 Power supply configurations

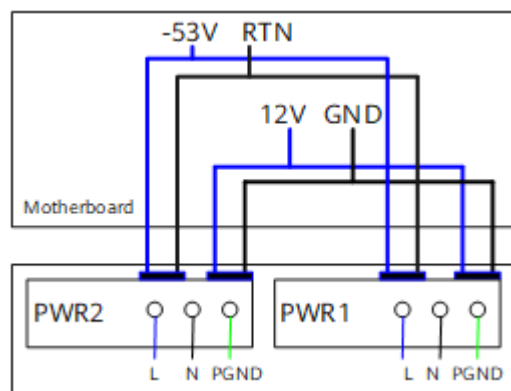
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	–	123.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 8802.3at (30 W per port): 4
500 W	–	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 16802.3at (30 W per port): 8
500 W	500 W	739.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 48802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-166](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

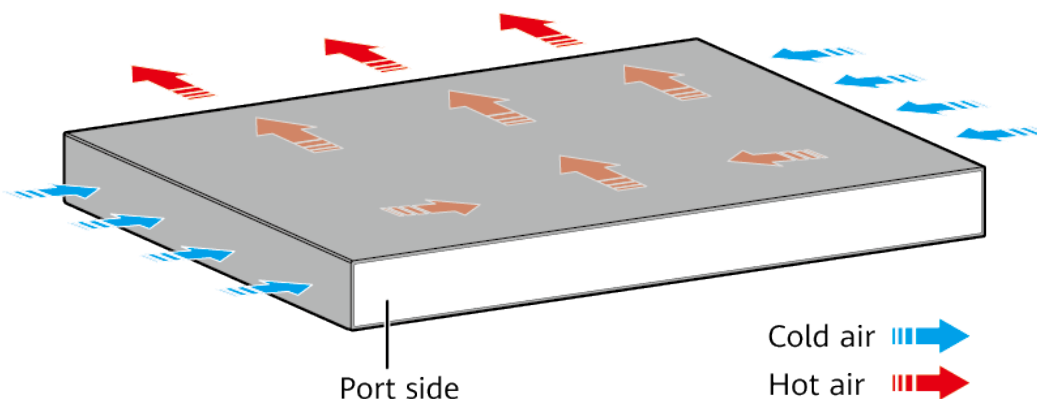
Figure 4-166 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-48TP-PWR-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-444](#) lists technical specifications of the S5700-48TP-PWR-SI.

Table 4-444 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB

Item	Description
Mean time between failures (MTBF)	71.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> • Empty: ≤ 5 kg (11.02 lb) • Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	907 W (system power consumption: 167 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352371

4.10.7 S5700-26X-SI-12S-AC

Version Mapping

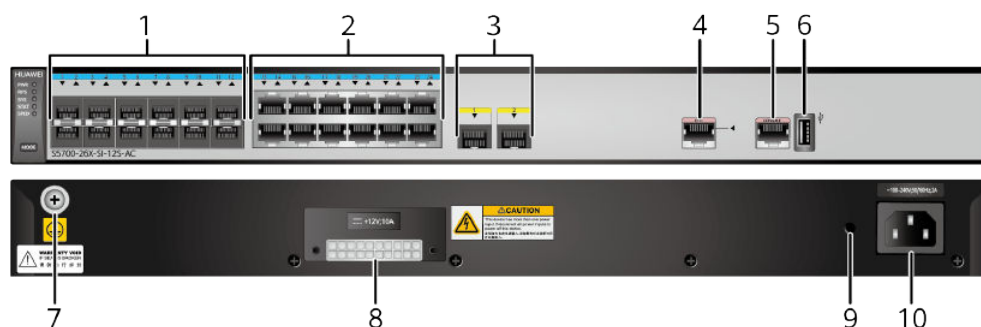
Table 4-445 lists the mapping between the S5700-26X-SI-12S-AC chassis and software versions.

Table 4-445 Version mapping

Series	Model	Software Version
S5700-SI	S5700-26X-SI-12S-AC	V200R002C00 to V200R005C02 NOTE This model does not match V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-167 S5700-26X-SI-12S-AC appearance



1	<p>Twelve 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Twelve 10/100/1000BASE-T ports</p>
3	<p>Two 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) 	4	<p>One ETH management port</p>
5	<p>One console port</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>
9	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	10	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-446](#) describes the attributes of a 100/1000BASE-X port.

Table 4-446 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-447](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-447 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-448](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-448 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-449](#).

Table 4-449 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-450](#) describes the attributes of an ETH management port.

Table 4-450 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-168 Indicators on the S5700-26X-SI-12S-AC

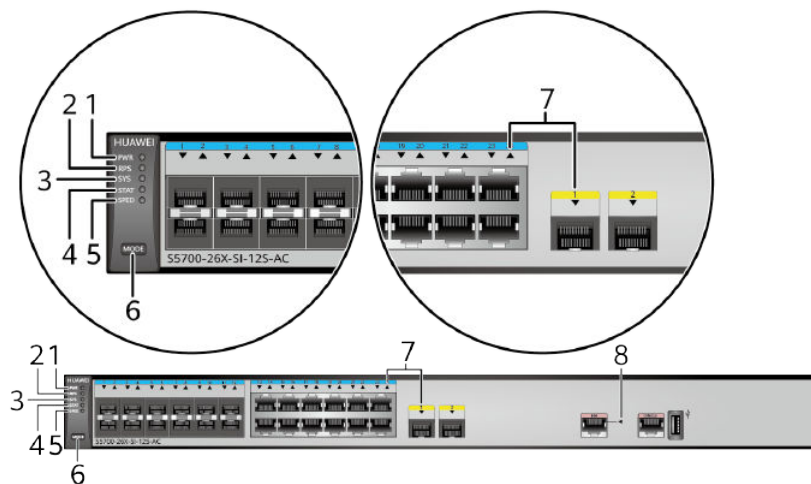


Table 4-451 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.

Number	Indicator/ Button	Color	Description
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold backup state. Blinking: The RPS is providing power for another device and cannot provide power for the current switch.
		Yellow	Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive. Slow blinking: The system is running normally.
		Yellow	Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.

Number	Indicator/ Button	Color	Description
5	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	MODE: mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the SPED indicator turns green and the service port indicators show the speed of each service port. When you press this button a second time, the STAT indicator turns green. <p>If you do not press the button within 45 seconds, the indicators restore to the default status. That is, the STAT indicator turns green, and the SPED indicator is off.</p>
7	Service port indicator <ul style="list-style-type: none"> GE electrical/optical ports: The ports are numbered from bottom to top and left to right, starting with 1. 10GE optical ports: Each port has an indicator above it. 	Meanings of service port indicators vary in different modes. For details, see Table 4-452 .	

Number	Indicator/ Button	Color	Description
8	ETH indicator	Green	<ul style="list-style-type: none"> Off: No link is established on the port. Steady on: The port is connected. Blinking: The port is sending or receiving data.

Table 4-452 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

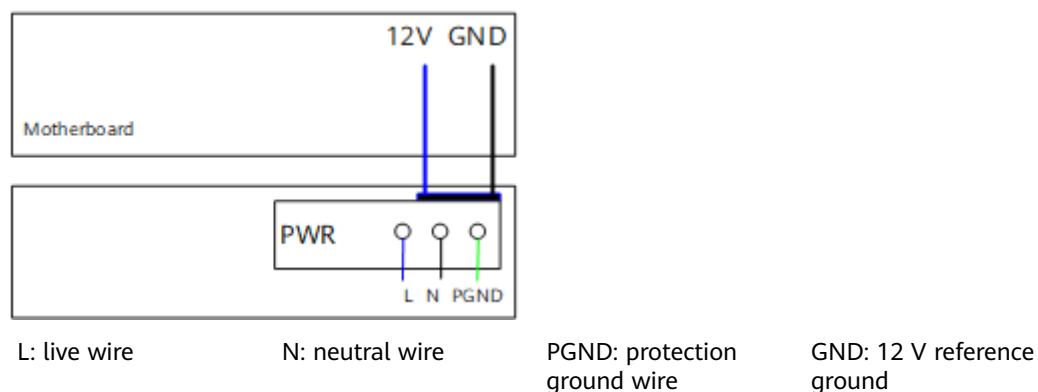
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-26X-SI-12S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

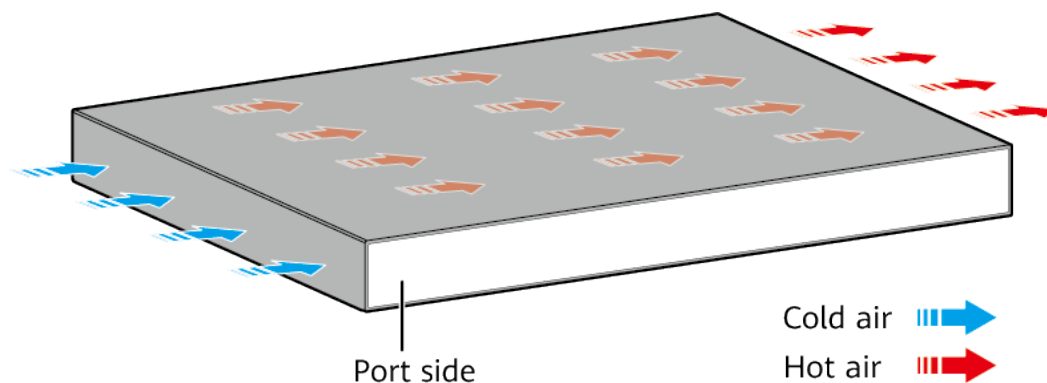
Figure 4-169 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-169 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-26X-SI-12S-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-453 lists technical specifications of the S5700-26X-SI-12S-AC.

Table 4-453 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	91.74 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight	≤ 5 kg (11.02 lb)
Stack ports	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	42.3 W

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354039

4.10.8 S5700-28C-SI

Version Mapping

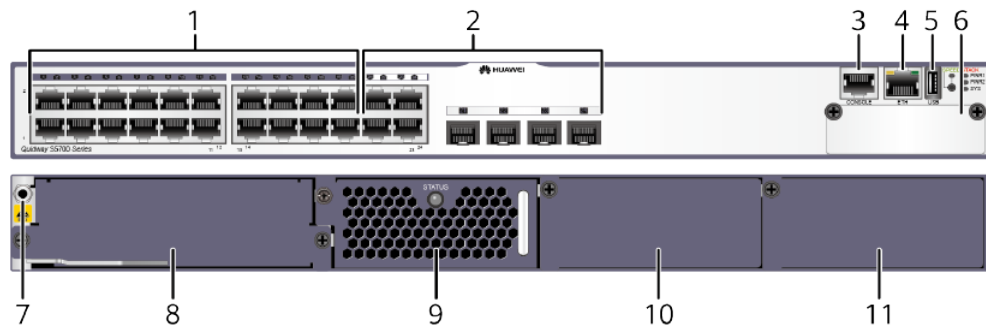
[Table 4-454](#) lists the mapping between the S5700-28C-SI and software versions.

Table 4-454 Version mapping

Series	Model	Software Version
S5700-SI	S5700-28C-SI	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-170 S5700-28C-SI appearance



1	Twenty 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	Front card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) • 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
7	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	8	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.30 ES5D00ETPC00 (Stack Rear Card) • 8.31 ES5D00ETPB00 (Extended Rear Card)

9	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	1 0	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
1 1	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-455](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-455 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-456](#).

Table 4-456 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-457](#) describes the attributes of an ETH management port.

Table 4-457 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-171 Indicators on the S5700-28C-SI

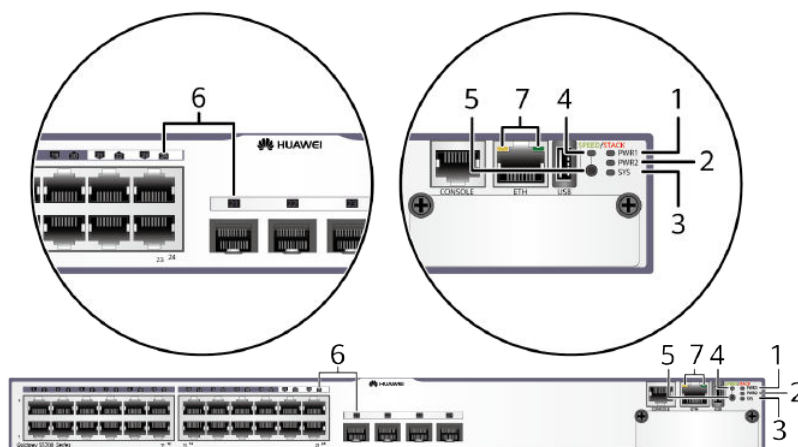


Table 4-458 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • The power module in power module slot 1 is available but its power switch is not switched on. • The power module in power module slot 1 is available but is not connected to a power source. • The power module in power module slot 1 fails.
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • The power module in power module slot 2 is available but its power switch is not switched on. • A power module is available in this slot but it is not connected to a power source. • The power module in power module slot 2 fails.

Number	Indicator/ Button	Color	Description
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none">Steady on: The system is not operating properly or is starting.Slow blinking: The system is running normally.Fast blinking: The system is copying the system software and configuration file from a USB flash drive.
		Yellow	<ul style="list-style-type: none">Steady on: The system is performing self-check during startup.Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none">Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
4	MODE: mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/Button	Color	Description
5	Mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port. When you press this button a second time, the mode indicator turns red and the service port indicators show the stack status. When you press this button a third time, the mode indicator turns off. <p>If you do not press the button within 45 seconds, the mode indicator restores to status mode.</p>
6	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-459 .	
7	ETH indicator	-	Off: No link is established on the port.
		Green	Steady on: The port is connected.
		Yellow	Blinking: The port is sending or receiving data.

Table 4-459 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.

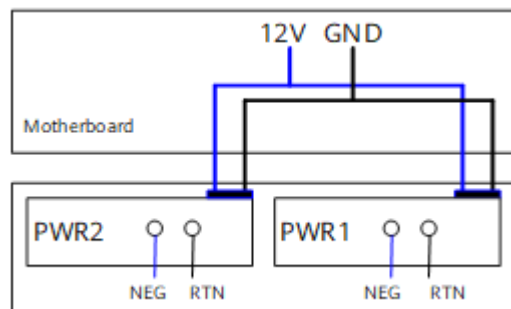
Display Mode	Color	Status	Description
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-28C-SI can use a single power module or double power modules for 1+1 power redundancy. In versions prior to V200R005C00, the AC and DC power modules cannot be configured on the same device, while in V200R005C00 and later versions, they can be configured on the same device.

Figure 4-172 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-172 Power supply connections of dual DC power modules



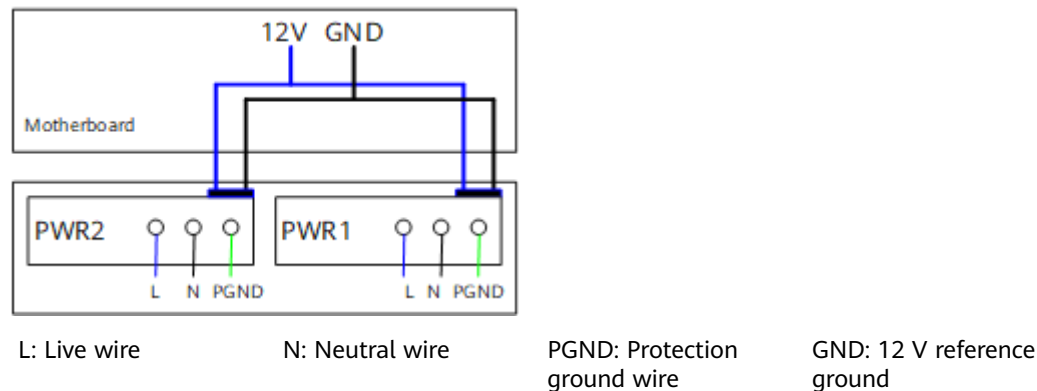
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

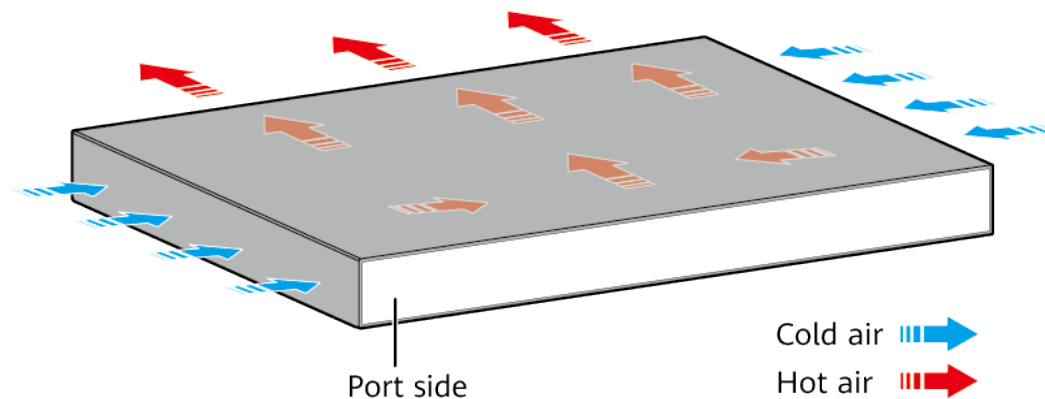
Figure 4-173 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-173 Power supply connections of dual AC power modules



Heat Dissipation

The S5700-28C-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-460 lists technical specifications of the S5700-28C-SI.

Table 4-460 Technical specifications

Item	Description
Memory (RAM)	256 MB

Item	Description
Flash	32 MB
Mean time between failures (MTBF)	53.7 years when a 2-port 10GE interface card is configured, 74.9 years when a 4-port GE front card is configured, 29.58 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode Using DC power modules: ±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	56 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)

Item	Description
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02352341

4.10.9 S5700-28C-PWR-SI

Version Mapping

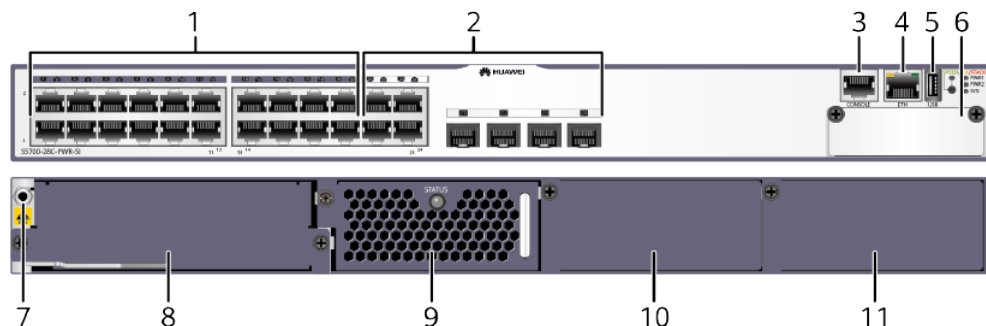
[Table 4-461](#) lists the mapping between the S5700-28C-PWR-SI and software versions.

Table 4-461 Version mapping

Series	Model	Software Version
S5700-SI	S5700-28C-PWR-SI	V200R001C00 to V200R005C02 NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-174 S5700-28C-PWR-SI appearance



1	Twenty PoE+ 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	Front card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) • 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
7	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	8	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.30 ES5D00ETPC00 (Stack Rear Card) • 8.31 ES5D00ETPB00 (Extended Rear Card)
9	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	10	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module
11	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-462](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-462 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-463](#).

Table 4-463 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 4-464** describes the attributes of an ETH management port.

Table 4-464 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-175 Indicators on the S5700-28C-PWR-SI

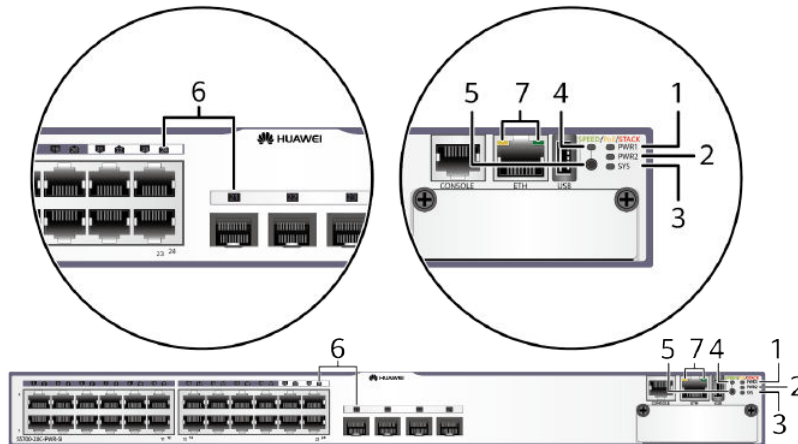


Table 4-465 Description of indicators on the switch

Number	Indicator/Button	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the power module is faulty when a single power module is configured.
		Green	Steady on: The power module in power module slot 1 is working properly.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. The power module in power module slot 1 is available but is not connected to a power source. The system power and PoE power are faulty.
		Yellow	Steady on: If a single power module is installed, the PoE power is out of range. If dual power modules are installed, the system power or PoE power is out of range.

Number	Indicator/Button	Color	Description
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the power module is faulty when a single power module is configured.
		Green	Steady on: The power module in power module slot 2 is working properly.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The system power and PoE power are faulty.
		Yellow	Steady on: If a single power module is installed, the PoE power is out of range. If dual power modules are installed, the system power or PoE power is out of range.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> • Steady on: The system is not operating properly or is starting. • Slow blinking: The system is running normally. • Fast blinking: The system is copying the system software and configuration file from a USB flash drive.
		Yellow	<ul style="list-style-type: none"> • Steady on: The system is performing self-check during startup. • Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.

Number	Indicator/ Button	Color	Description
		Red	<ul style="list-style-type: none">Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
4	Mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.
		Yellow	Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/ Button	Color	Description
5	Mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port. When you press this button a second time, the mode indicator turns red and the service port indicators show the stack status. When you press this button a third time, the mode indicator turns yellow and the service port indicators show the PoE status. When you press this button a fourth time, the mode indicator turns off. <p>If you do not press the button within 45 seconds, the mode indicator restores to status mode.</p>
6	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-466 .	
7	ETH indicator	-	Off: No link is established on the port.
		Green	Steady on: The port is connected.
		Yellow	Blinking: The port is sending or receiving data.

Table 4-466 Description of service port indicators in different modes

Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: The port is connected. Blinking: The port is sending or receiving data.

Display Mode	Color	Description
Speed	Green	<ul style="list-style-type: none"> ● Off: The port is not connected or has been shut down. ● Steady on: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s. ● Blinking: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	Green	<ul style="list-style-type: none"> ● Off: The port does not provide PoE power. ● Steady on: The port is providing PoE power. ● Blinking: The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.
Stack	Green	<ul style="list-style-type: none"> ● Off: The STCK mode is not selected. ● If the indicator is steady on, the switch is not a master switch: <ul style="list-style-type: none"> – If the indicator of a port is steady on, the number of this port is the stack ID of the switch. – If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0. ● If the indicator is blinking, the switch is a master switch: <ul style="list-style-type: none"> – If the indicator of a port is blinking, the number of this port is the stack ID of the switch. – If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

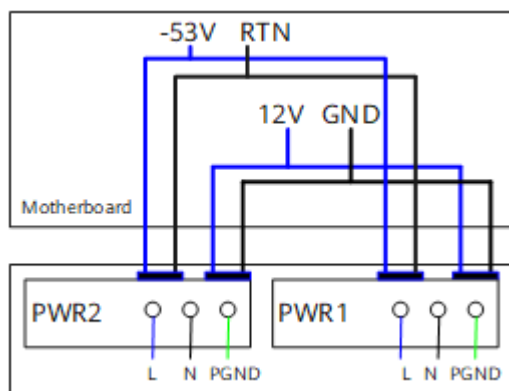
The S5700-28C-PWR-SI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 4-467](#) lists its power supply configurations.

Table 4-467 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	-	123.2 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 4
500 W	-	369.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 16 ● 802.3at (30 W per port): 8
500 W	500 W	369.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 12

[Figure 4-176](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

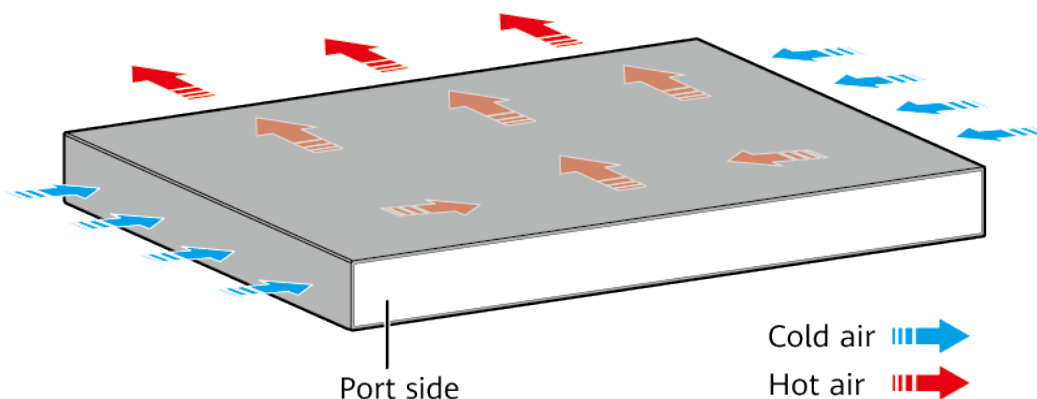
Figure 4-176 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-28C-PWR-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-468 lists technical specifications of the S5700-28C-PWR-SI.

Table 4-468 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB

Item	Description
Mean time between failures (MTBF)	53.6 years when a 2-port 10GE interface card is configured, 74.6 years when a 4-port GE front card is configured, 25.68 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1 kV in common mode
Power supply surge protection	±2 kV in differential mode, ±4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> • Empty: ≤ 5 kg (11.02 lb) • Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	466 W (system power consumption: 96 W, PoE: 370 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354137

4.10.10 S5700-52C-SI

Version Mapping

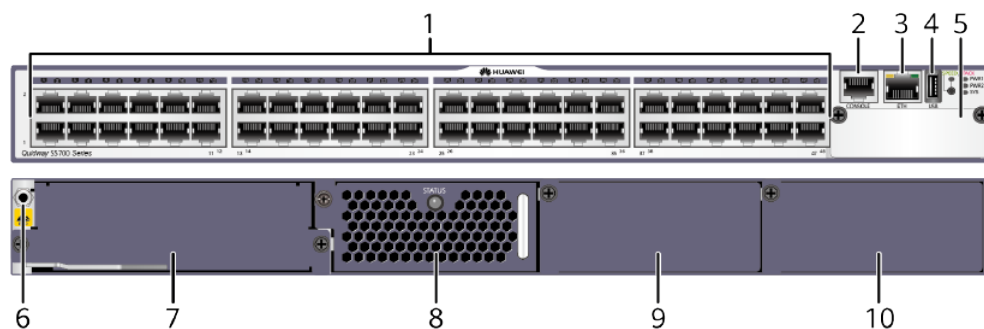
[Table 4-469](#) lists the mapping between the S5700-52C-SI and software versions.

Table 4-469 Version mapping

Series	Model	Software Version
S5700-SI	S5700-52C-SI	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-177 S5700-52C-SI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	One console port
3	One ETH management port	4	One USB port

5	<p>Front card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 8.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) • 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card) 	6	<p>ESD jack</p> <p>NOTE</p> <p>Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.</p>
7	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 8.30 ES5D00ETPC00 (Stack Rear Card) • 8.31 ES5D00ETPB00 (Extended Rear Card) 	8	<p>Fan slot</p> <p>NOTE</p> <p>Applicable fan module: CX7E1FANA fan module</p>
9	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	10	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-470](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-470 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-471](#).

Table 4-471 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-472](#) describes the attributes of an ETH management port.

Table 4-472 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

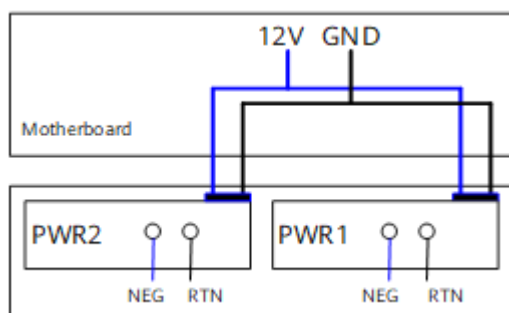
The S5700-52C-SI has the same types of indicators as the S5700-28C-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52C-SI can use a single power module or double power modules for 1+1 power redundancy. In versions prior to V200R005C00, the switch cannot use pluggable AC and DC power modules simultaneously. In V200R005C00 and later versions, the switch supports mixing of pluggable AC and DC power modules.

[Figure 4-178](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-178 Power supply connections of dual DC power modules



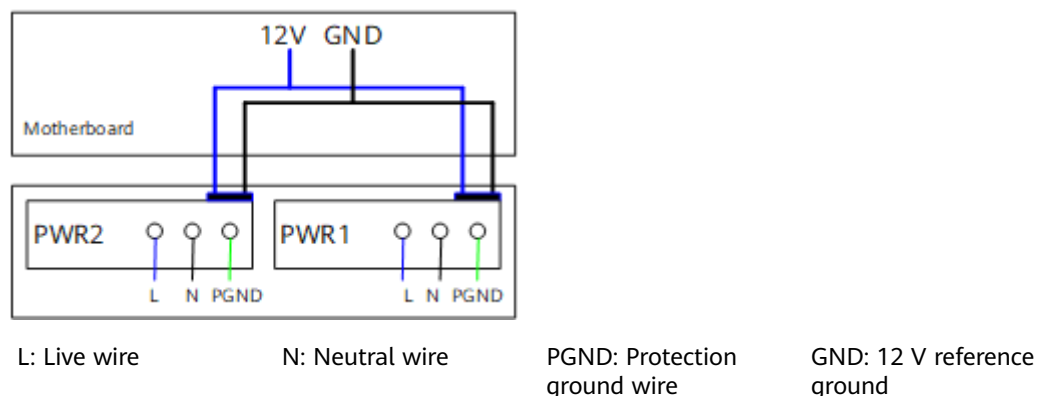
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

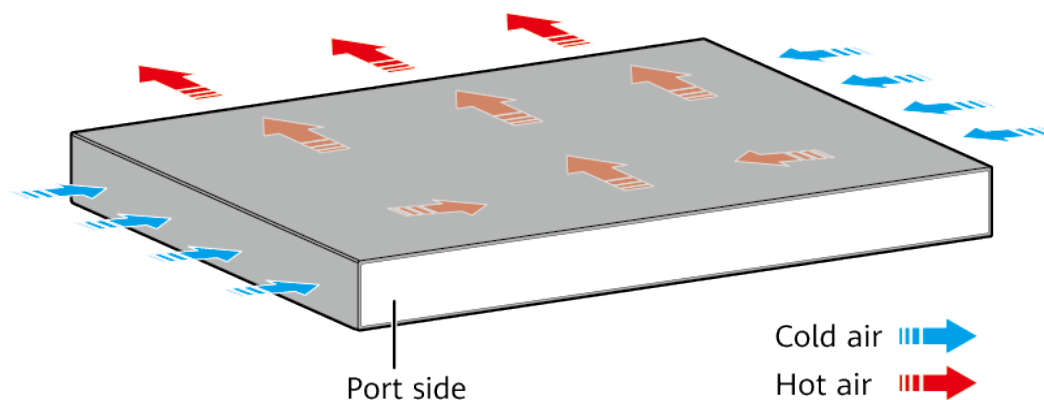
[Figure 4-179](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-179 Power supply connections of dual AC power modules



Heat Dissipation

The S5700-52C-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-473 lists technical specifications of the S5700-52C-SI.

Table 4-473 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	51.3 years when a 2-port 10GE interface card is configured, 70.3 years when a 4-port GE front card is configured, 28.58 years when a 4x10GE front card is configured

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none">Empty: ≤ 5 kg (11.02 lb)Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	78 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">AC power modules configured: 0-5000 m (0-16404 ft.)DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352356

4.10.11 S5700-52C-PWR-SI

Version Mapping

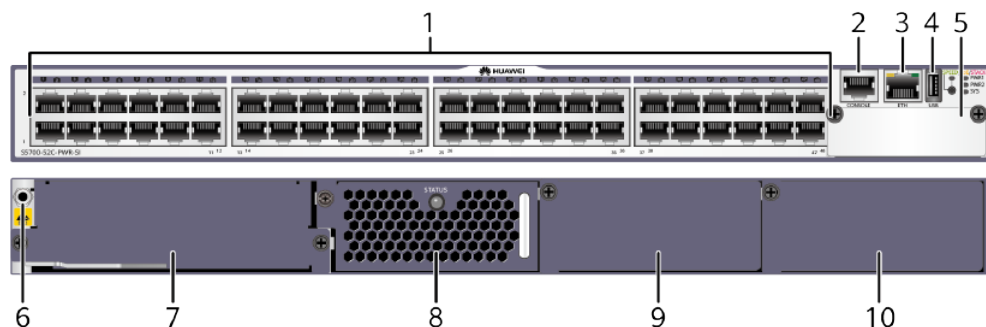
Table 4-474 lists the mapping between the S5700-52C-PWR-SI and software versions.

Table 4-474 Version mapping

Series	Model	Software Version
S5700-SI	S5700-52C-PWR-SI	V200R001C00 to V200R005C02 NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-180 S5700-52C-PWR-SI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	One console port
3	One ETH management port	4	One USB port

5	<p>Front card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 8.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) • 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card) 	6	<p>ESD jack</p> <p>NOTE</p> <p>Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.</p>
7	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 8.30 ES5D00ETPC00 (Stack Rear Card) • 8.31 ES5D00ETPB00 (Extended Rear Card) 	8	<p>Fan slot</p> <p>NOTE</p> <p>Applicable fan module: CX7E1FANA fan module</p>
9	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module 	10	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-475](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-475 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-476](#).

Table 4-476 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-477](#) describes the attributes of an ETH management port.

Table 4-477 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-52C-PWR-SI has the same types of indicators as the S5700-28C-PWR-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52C-PWR-SI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 4-478](#) lists its power supply configurations.

Table 4-478 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	–	123.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 4
500 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 8
500 W	500 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

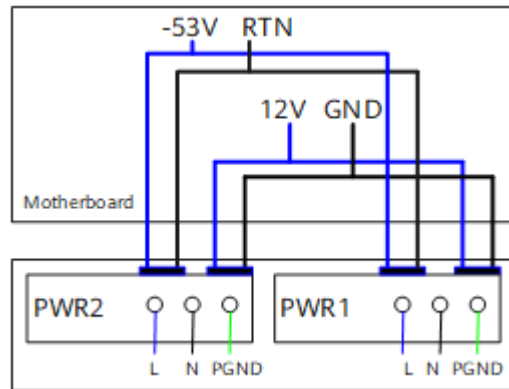
 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-181](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the

motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

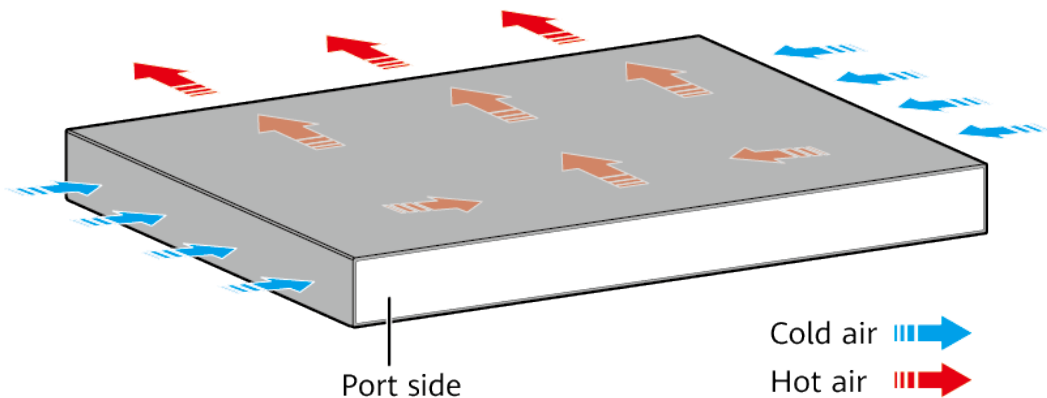
Figure 4-181 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-52C-PWR-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-479 lists technical specifications of the S5700-52C-PWR-SI.

Table 4-479 Technical specifications

Item	Description
Memory (RAM)	256 MB

Item	Description
Flash	32 MB
Mean time between failures (MTBF)	50.4 years when a 2-port 10GE interface card is configured, 68.6 years when a 4-port GE front card is configured, 35.58 years when a 4x10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none">• Empty: ≤ 5 kg (11.02 lb)• Fully configured: ≤ 8.5 kg (18.74 lb)
Stack port	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	917 W (system power consumption: 177 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)

Item	Description
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354135

4.11 S5720-SI

4.11.1 S5720-14X-PWH-SI-AC

Version Mapping

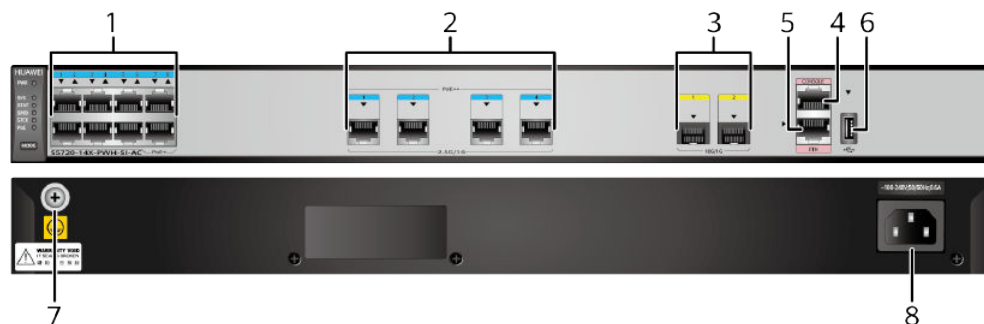
[Table 4-480](#) lists the mapping between the S5720-14X-PWH-SI-AC chassis and software versions.

Table 4-480 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-14X-PWH-SI-AC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-182 S5720-14X-PWH-SI-AC appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	Four PoE++ 100M/1000M/2.5GE BASE-T ports (MultiGE port)
3	Two 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.
5	One ETH management port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-481** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-481 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Attribute	Description
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100M/1000M/2.5G BASE-T port

A 100M/1000M/2.5G BASE-T port (MultiGE port) sends and receives service data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s, and must use an **Ethernet cable**. If the 2.5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. [Table 4-482](#) describes the attributes of a 100M/1000M/2.5G BASE-T port.

Table 4-482 Attributes of a 100M/1000M/2.5G BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, mgbase-t
Working mode	100/1000/2500 Mbit/s auto-sensing
Maximum transmission distance	100 m

A 100M/1000M/2.5G BASE-T Ethernet port can connect to the following devices:

- All switches providing FE electrical interfaces, GE electrical interfaces or MultiGE electrical interfaces
- AP: AP7050DN-E (with 2.5G uplink interfaces) running V200R007C00 and AP5030DN-S (with GE uplink interfaces)
- Pico: BTS3911B running V100R010C10SPC092T

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-483](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-483 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-484](#).

Table 4-484 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-485](#) describes the attributes of an ETH management port.

Table 4-485 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

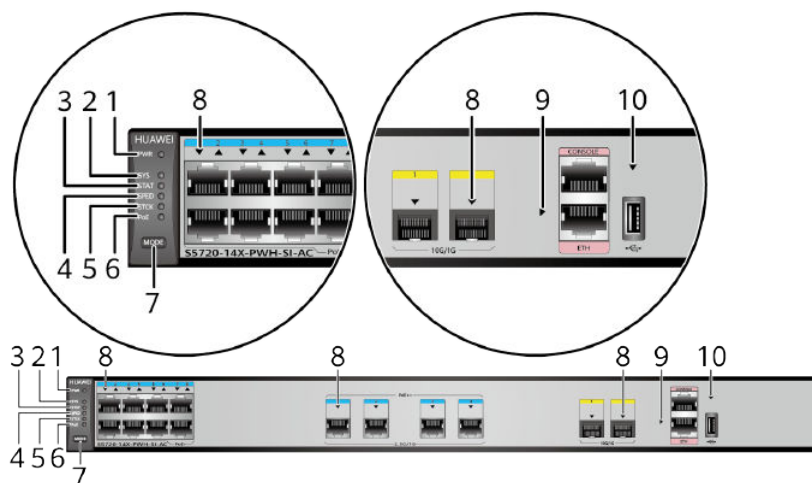
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-183 Indicators on the S5720-14X-PWH-SI-AC



NOTE

The S5720-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720-SI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-486 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
			Yellow or red	Steady on	The built-in power module has failed.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.

No.	Indicator	Name	Color	Status	Description
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
3	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-487 .		
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-487 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.

Display Mode	Color	Status	Description
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

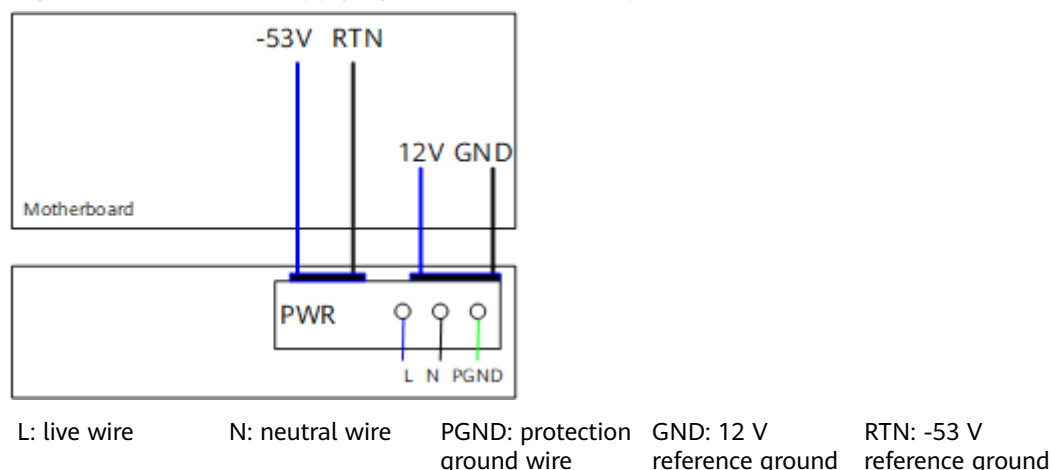
The S5720-14X-PWH-SI-AC has a built-in power module and does not support pluggable power modules. The S5720-14X-PWH-SI-AC is a PoE switch and has a built-in PoE power module.

Table 4-488 Power supply configurations (built-in power module)

Available PoE Power	Maximum Number of Ports (Fully Loaded)
369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 12 802.3at (30 W per port): 12 Non-standard (90 W per port): 4 (only PoE++ ports) <p>NOTE A PoE++ port is a non-standard port and can only provide 90 W power for the attached PD.</p>

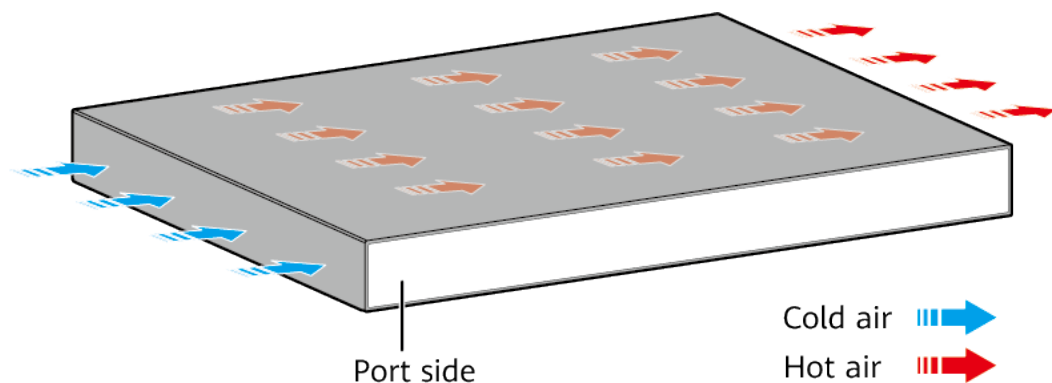
Figure 4-184 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 4-184 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-14X-PWH-SI-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-489 lists technical specifications of the S5720-14X-PWH-SI-AC.

Table 4-489 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	86.55 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 315.0 mm (1.72 in. x 17.4 in. x 12.4 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 324.0 mm (1.72 in. x 17.4 in. x 12.76 in.)
Weight (with packaging)	5.9 kg (13.01 lb)
Stack ports	First eight GE electrical ports 10GE SFP+ ports (V200R010C00 and later versions)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 52 W • 100% PoE loads: 422 W (system power consumption: 52 W, PoE: 370 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	44.94 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 52.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350MTV

4.11.2 S5720-28P-SI-AC

Version Mapping

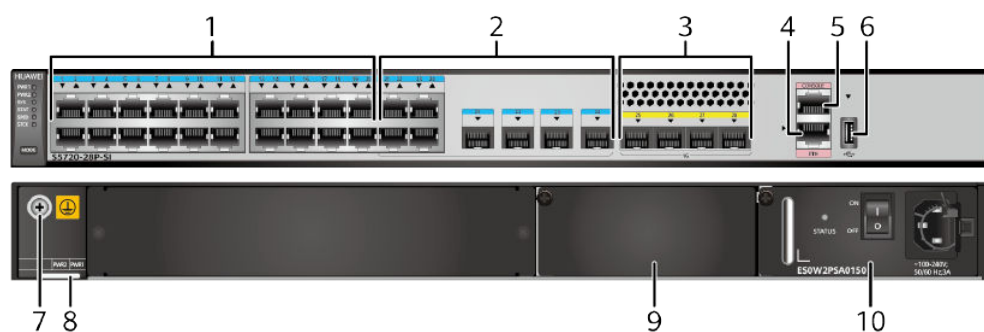
[Table 4-490](#) lists the mapping between the S5720-28P-SI-AC chassis and software versions.

Table 4-490 Version mapping

Series		Model	Software Version
S5720-SI	S5720-P-SI	S5720-28P-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 4-185 S5720-28P-SI-AC appearance



1	Twenty 10/100/1000BASE-T ports	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 5 m SFP+ high-speed copper cable (only for stack ports and applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	One ETH management port

5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	10	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-491](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-491 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. When a 1000BASE-X port uses a 10GE optical module, SFP+ high-speed copper cable, or active optical cable (AOC), the port can only be used for stack connection. [Table 4-492](#) describes the attributes of a 1000BASE-X port.

Table 4-492 Attributes of a 1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-493](#).

Table 4-493 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-494](#) describes the attributes of an ETH management port.

Table 4-494 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28P-SI-AC has similar indicators to those on the S5720-52X-PWR-SI-AC, except that the S5720-28P-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

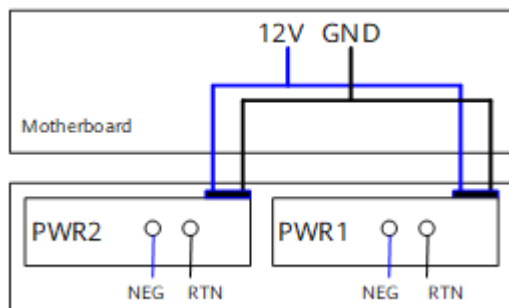
The S5720-28P-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

[Figure 4-186](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-186 Power supply connections of dual DC power modules



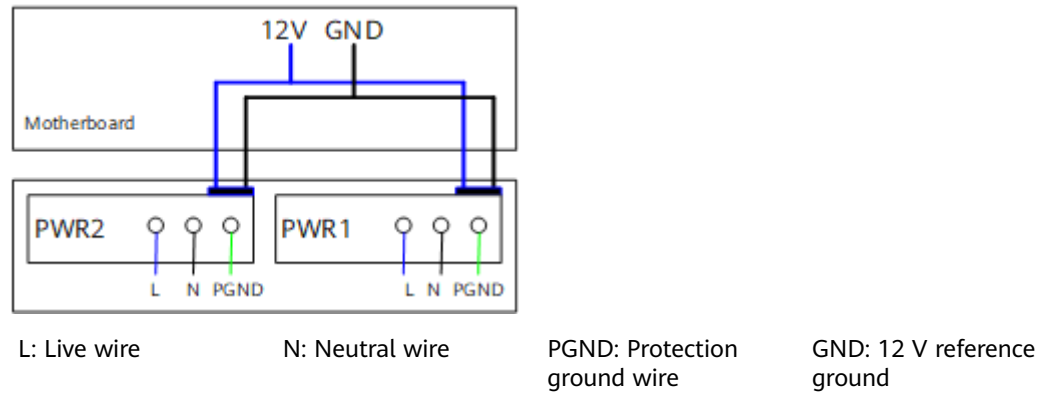
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

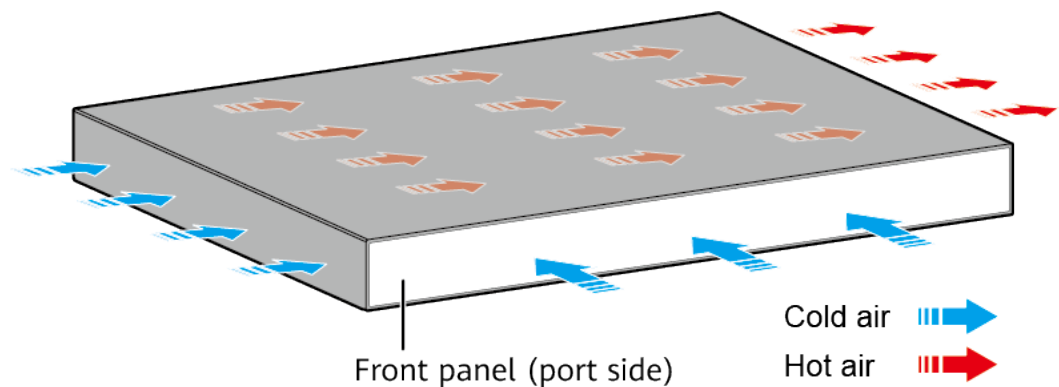
[Figure 4-187](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-187 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-28P-SI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-495 lists technical specifications of the S5720-28P-SI-AC.

Table 4-495 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.48 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.1 kg (20.06 lb)
Stack ports	GE electrical ports and GE SFP optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	34.6 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	21.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLS

4.11.3 S5720-52P-SI-AC

Version Mapping

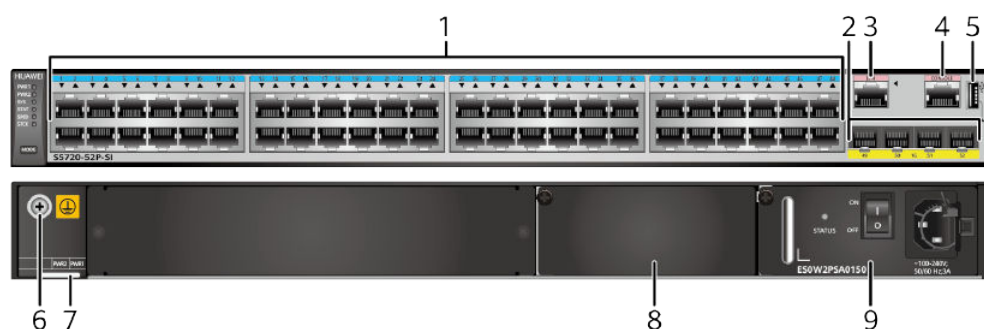
[Table 4-496](#) lists the mapping between the S5720-52P-SI-AC chassis and software versions.

Table 4-496 Version mapping

Series		Model	Software Version
S5720-SI	S5720-P-SI	S5720-52P-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 4-188 S5720-52P-SI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 5 m SFP+ high-speed copper cable (only for stack ports and applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-497](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-497 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. When a 1000BASE-X port uses a 10GE optical module, SFP+ high-speed copper cable, or active optical cable (AOC), the port can only be used for stack connection. [Table 4-498](#) describes the attributes of a 1000BASE-X port.

Table 4-498 Attributes of a 1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-499](#).

Table 4-499 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-500](#) describes the attributes of an ETH management port.

Table 4-500 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3

Attribute	Description
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-52P-SI-AC has similar indicators to those on the S5720-52X-PWR-SI-AC, except that the S5720-52P-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

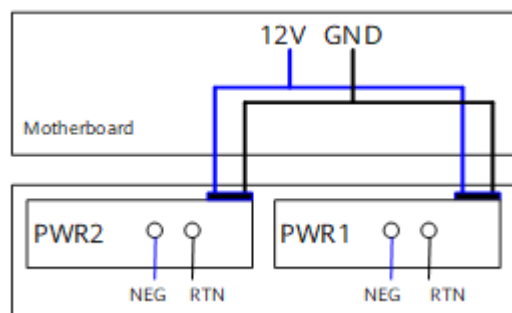
The S5720-52P-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

Figure 4-189 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-189 Power supply connections of dual DC power modules



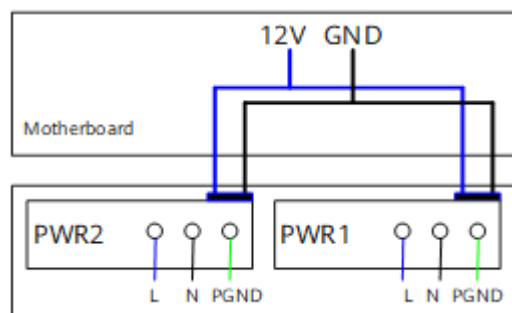
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-190 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-190 Power supply connections of dual AC power modules



L: Live wire

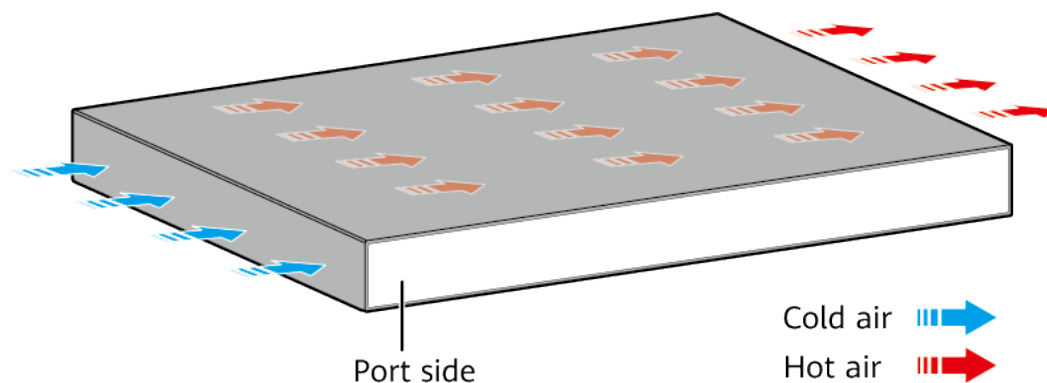
N: Neutral wire

PGND: Protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5720-52P-SI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



Cold air

Hot air

 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-501 lists technical specifications of the S5720-52P-SI-AC.

Table 4-501 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	75.66 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.5 kg (20.95 lb)
Stack ports	GE electrical ports and GE SFP optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	53.6 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	32.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02350DLU

4.11.4 S5720-28X-SI-AC

Version Mapping

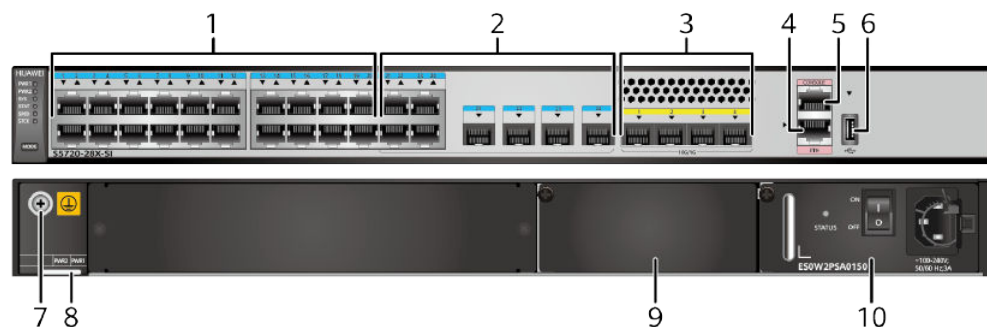
Table 4-502 lists the mapping between the S5720-28X-SI-AC chassis and software versions.

Table 4-502 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 4-191 S5720-28X-SI-AC appearance



1	Twenty 10/100/1000BASE-T ports	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	One ETH management port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-503](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-503 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-504](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-504 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-505](#).

Table 4-505 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-506](#) describes the attributes of an ETH management port.

Table 4-506 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28X-SI-AC has similar indicators as those on the S5720-52X-PWR-SI-AC, except that the S5720-28X-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

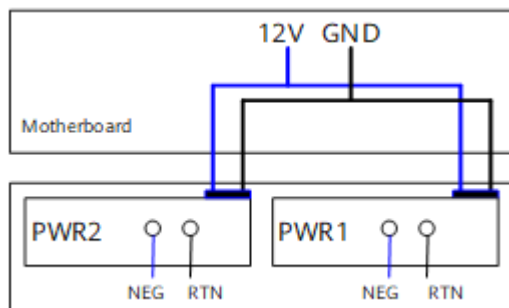
The S5720-28X-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

Figure 4-192 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-192 Power supply connections of dual DC power modules



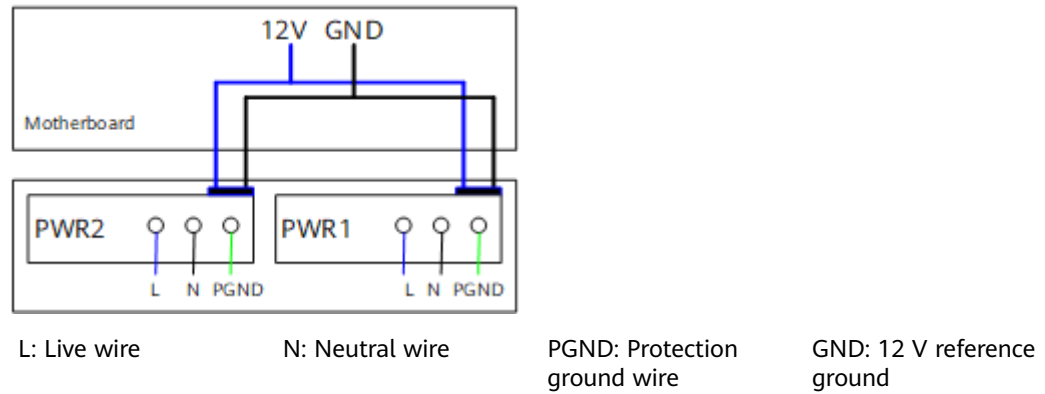
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

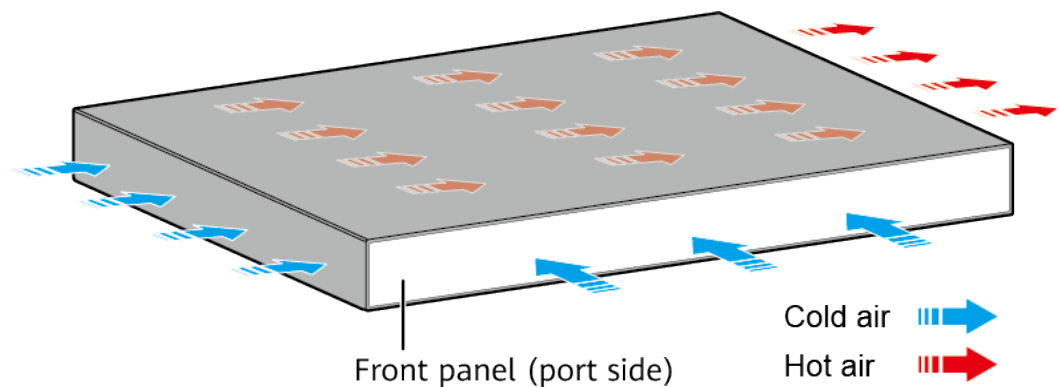
Figure 4-193 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-193 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-28X-SI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-507 lists technical specifications of the S5720-28X-SI-AC.

Table 4-507 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	82.4 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.1 kg (20.06 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	37.5 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	22.3 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLT

4.11.5 S5720-28X-SI-DC

Version Mapping

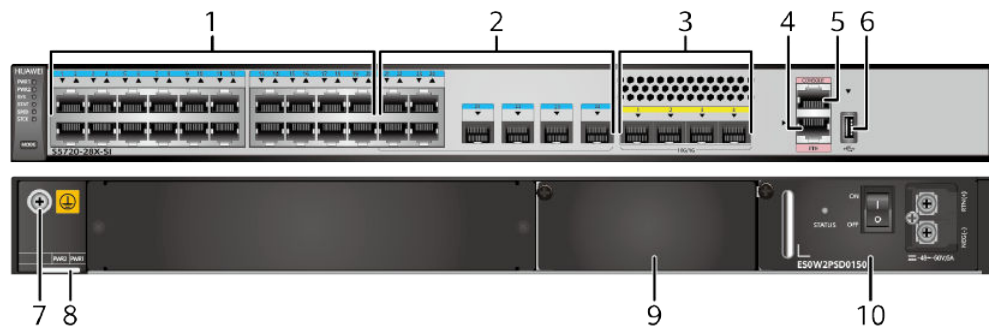
[Table 4-508](#) lists the mapping between the S5720-28X-SI-DC chassis and software versions.

Table 4-508 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-194 S5720-28X-SI-DC appearance



1	Twenty 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	One ETH management port

5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	10	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-509](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-509 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-510](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-510 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-511](#).

Table 4-511 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-512](#) describes the attributes of an ETH management port.

Table 4-512 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28X-SI-DC has similar indicators to those on the S5720-52X-PWR-SI-AC, except that the S5720-28X-SI-DC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

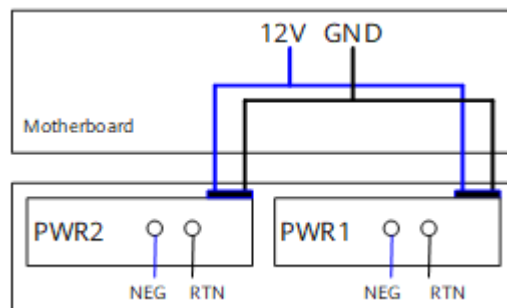
The S5720-28X-SI-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

 NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

[Figure 4-195](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-195 Power supply connections of dual DC power modules



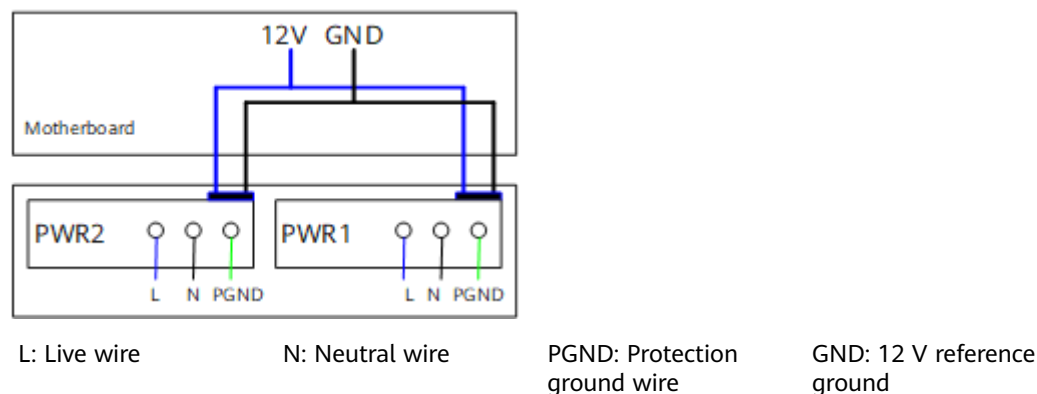
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

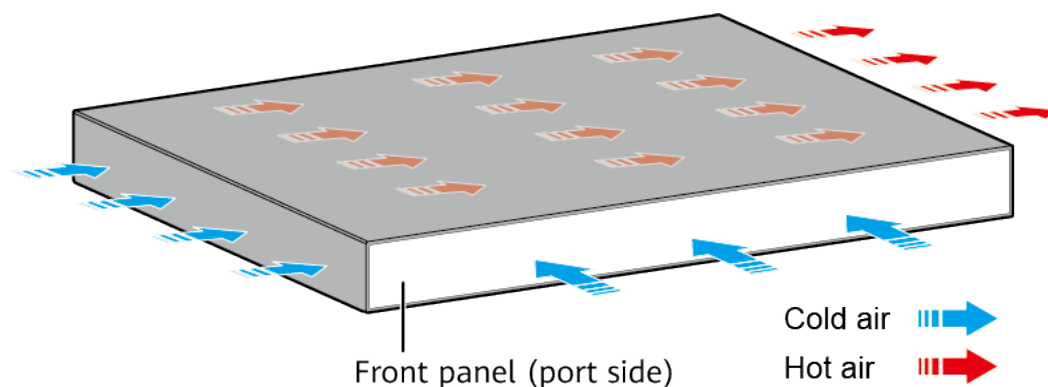
[Figure 4-196](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-196 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-28X-SI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-513 lists technical specifications of the S5720-28X-SI-DC.

Table 4-513 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	82.4 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.1 kg (20.06 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	36.9 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	22.5 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NGU

4.11.6 S5720-28X-PWR-SI-AC

Version Mapping

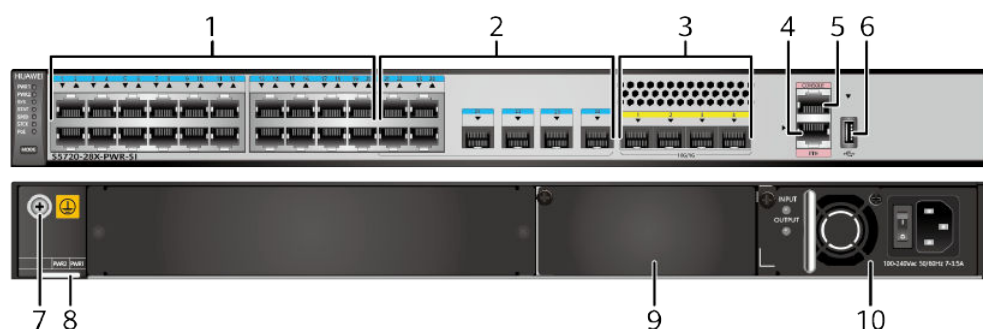
[Table 4-514](#) lists the mapping between the S5720-28X-PWR-SI-AC chassis and software versions.

Table 4-514 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-PWR-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 4-197 S5720-28X-PWR-SI-AC appearance



1	<p>Twenty PoE+ 10/100/1000BASE-T ports</p>	2	<p>Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One ETH management port</p>

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-515](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-515 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-516](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-516 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-517](#).

Table 4-517 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-518](#) describes the attributes of an ETH management port.

Table 4-518 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28X-PWR-SI-AC has the same types of indicators as the S5720-52X-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-PWR-SI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 4-519](#) lists its power supply configurations.

Table 4-519 Power supply configurations

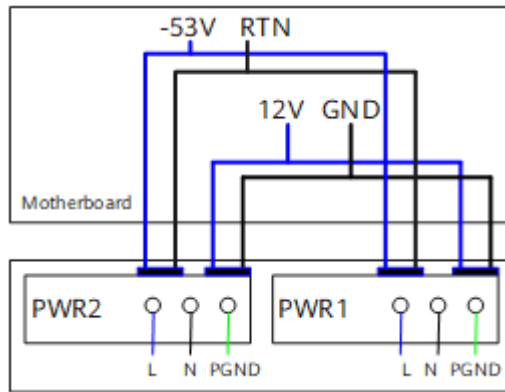
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

 NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-198](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

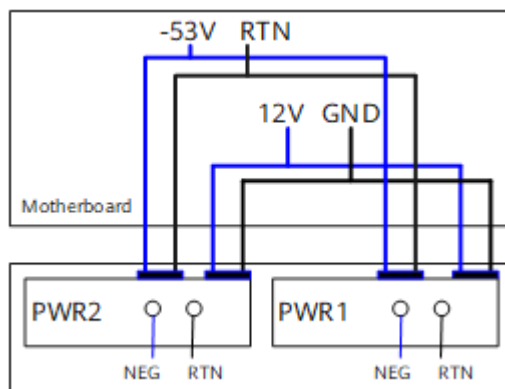
Figure 4-198 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-199 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

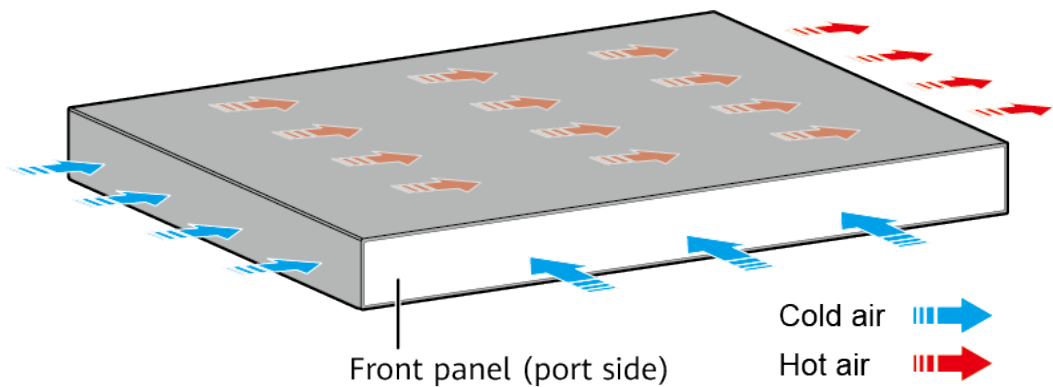
Figure 4-199 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-28X-PWR-SI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-520 lists technical specifications of the S5720-28X-PWR-SI-AC.

Table 4-520 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	66.78 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)

Item	Description
Weight (with packaging)	9.3 kg (20.51 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 56.1 W • 100% PoE loads: 913 W (system power consumption: 173 W, PoE: 740 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	31.8 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLW

4.11.7 S5720-28X-PWR-SI-DC

Version Mapping

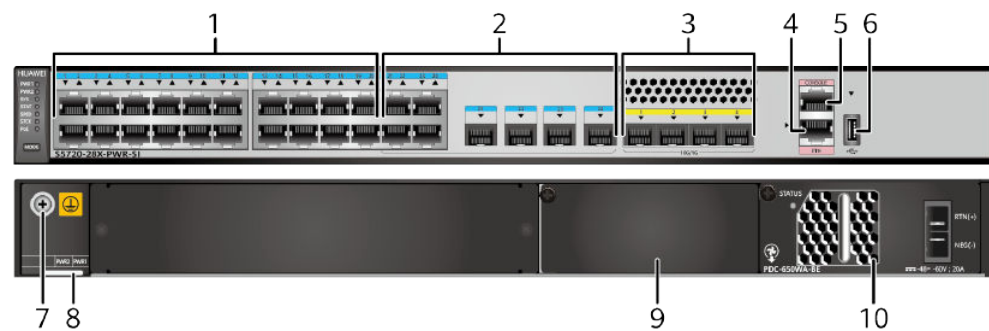
[Table 4-521](#) lists the mapping between the S5720-28X-PWR-SI-DC chassis and software versions.

Table 4-521 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-PWR-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-200 S5720-28X-PWR-SI-DC appearance



1	Twenty PoE+ 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> ● FE optical module ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One ETH management port</p>
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>

9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-522](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-522 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-523](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-523 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-524](#).

Table 4-524 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-525](#) describes the attributes of an ETH management port.

Table 4-525 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28X-PWR-SI-DC has the same types of indicators as the S5720-52X-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-PWR-SI-DC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 4-526](#) lists its power supply configurations.

Table 4-526 Power supply configurations

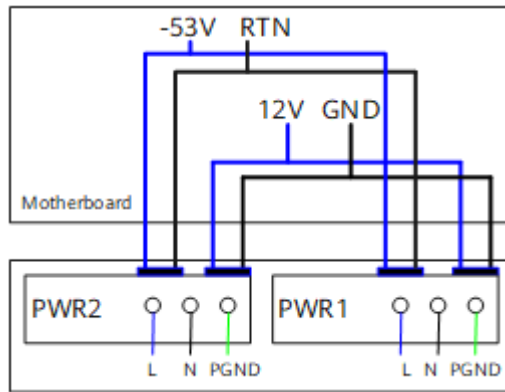
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 24

 NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-201](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

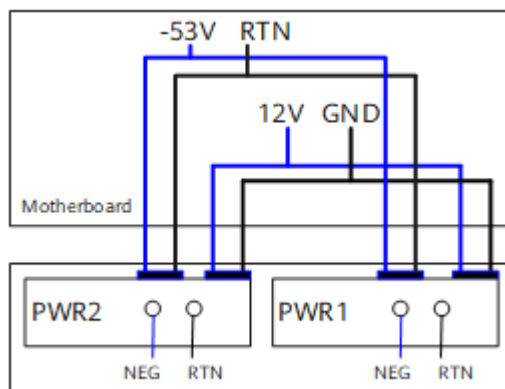
Figure 4-201 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-202 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

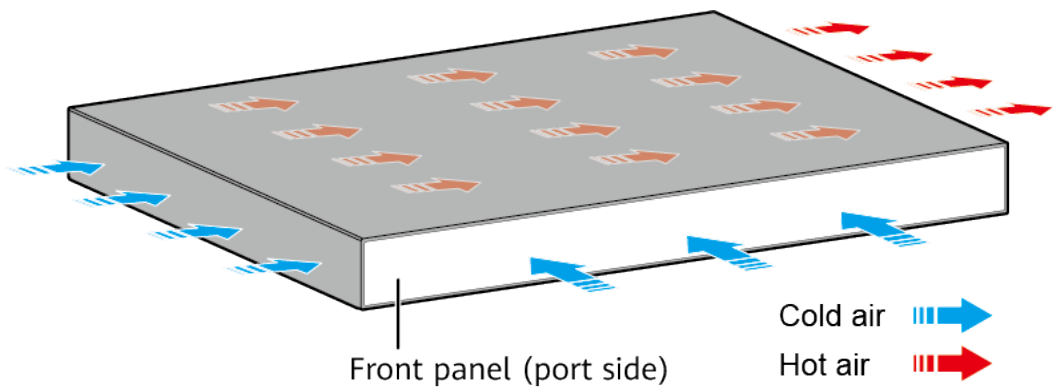
Figure 4-202 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-28X-PWR-SI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-527 lists technical specifications of the S5720-28X-PWR-SI-DC.

Table 4-527 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	66.78 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)

Item	Description
Weight (with packaging)	9.3 kg (20.51 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 56.3 W • 100% PoE loads: 887 W (system power consumption: 147 W, PoE: 740 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	32.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NGW

4.11.8 S5720-28X-SI-24S-AC

Version Mapping

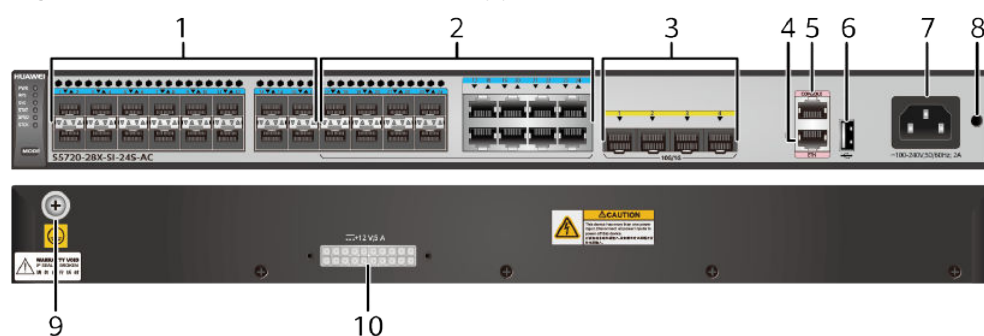
[Table 4-528](#) lists the mapping between the S5720-28X-SI-24S-AC chassis and software versions.

Table 4-528 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-SI-24S-AC	V200R010C00 to V200R019C10 versions

Appearance and Structure

Figure 4-203 S5720-28X-SI-24S-AC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	One ETH management port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-529](#) describes the attributes of a 100/1000BASE-X port.

Table 4-529 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-530](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-530 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-531](#).

Table 4-531 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-532](#) describes the attributes of an ETH management port.

Table 4-532 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

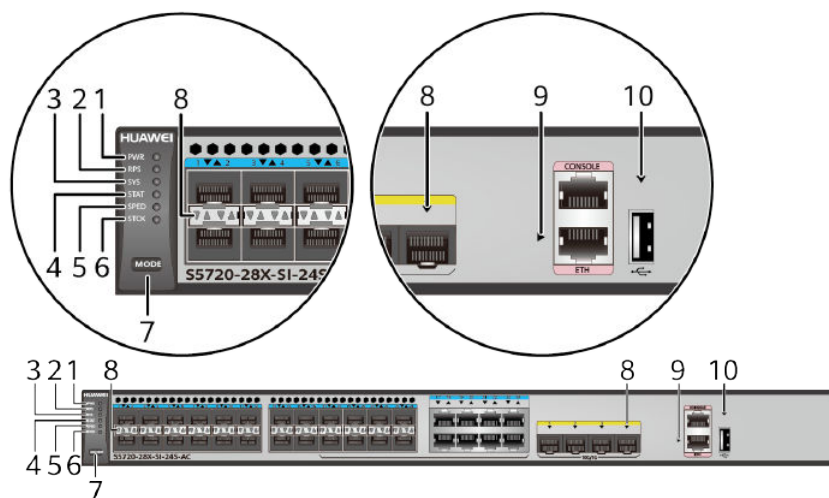
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-204 Indicators on the S5720-28X-SI-24S-AC



NOTE

The S5720-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 4-533 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
			Yellow	Steady on	The built-in power module has failed, and the switch is receiving power from a redundant power supply (RPS).
2	RPS	RPS indicator	-	Off	The switch is not connected to an RPS.
			Green	Steady on	The RPS is in cold standby state.
			Green	Blinking	The RPS is supplying power to another switch.
			Yellow	Blinking	The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.

No.	Indicator	Name	Color	Status	Description
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-534 and Table 4-535 .		
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-534 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 4-535 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

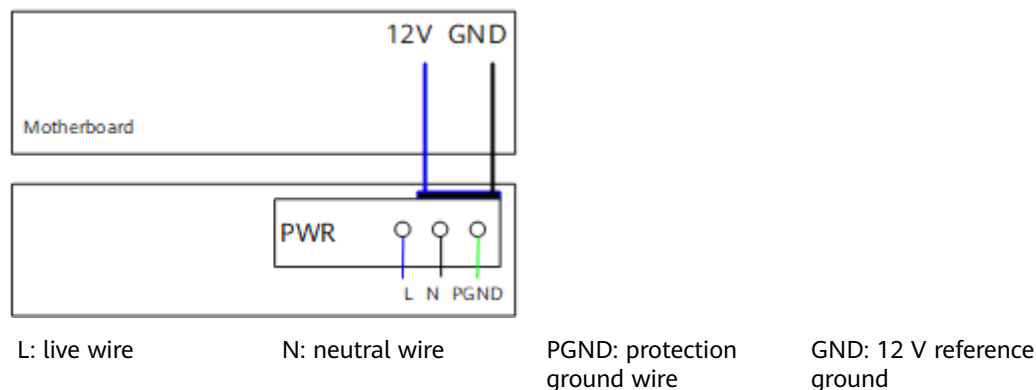
Display Mode	Color	Status	Description
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-28X-SI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

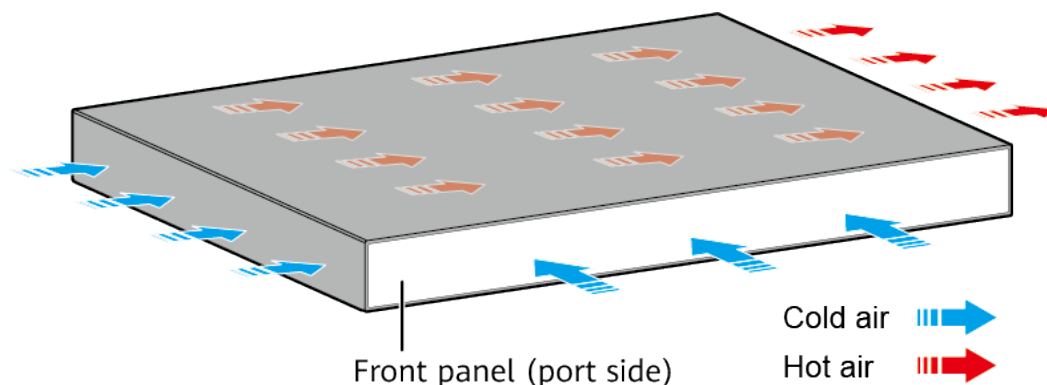
Figure 4-205 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-205 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-28X-SI-24S-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-536 lists technical specifications of the S5720-28X-SI-24S-AC.

Table 4-536 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.1 kg (9.04 lb)
Stack ports	GE SFP optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	41.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	28.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 43 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010625

4.11.9 S5720-28X-SI-24S-DC

Version Mapping

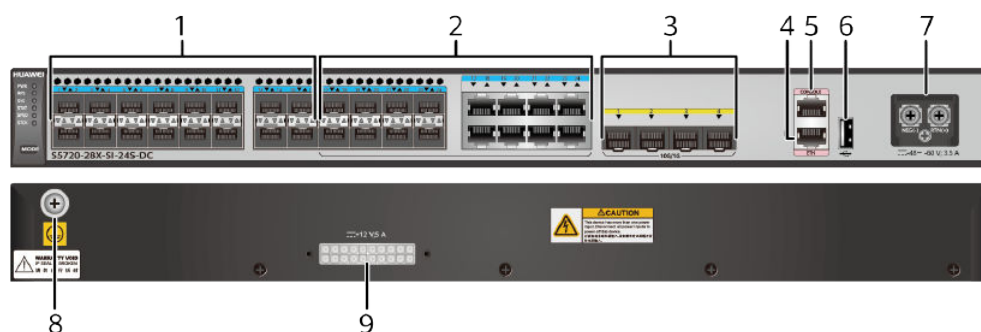
[Table 4-537](#) lists the mapping between the S5720-28X-SI-24S-DC chassis and software versions.

Table 4-537 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-SI-24S-DC	V200R010C00 to V200R019C10 versions

Appearance and Structure

Figure 4-206 S5720-28X-SI-24S-DC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One ETH management port</p>

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	DC power terminal NOTE It is used together with a DC Power Cable .	8	Ground screw NOTE It is used with a ground cable .
9	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-538](#) describes the attributes of a 100/1000BASE-X port.

Table 4-538 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-539](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-539 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-540](#).

Table 4-540 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-541](#) describes the attributes of an ETH management port.

Table 4-541 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

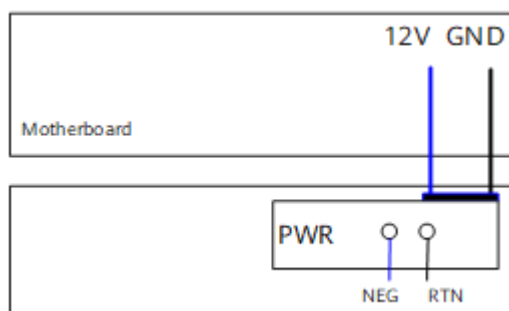
The S5720-28X-SI-24S-DC has the same types of indicators as the S5720-28X-SI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-SI-24S-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 4-207](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-207 Power supply by a single DC power module



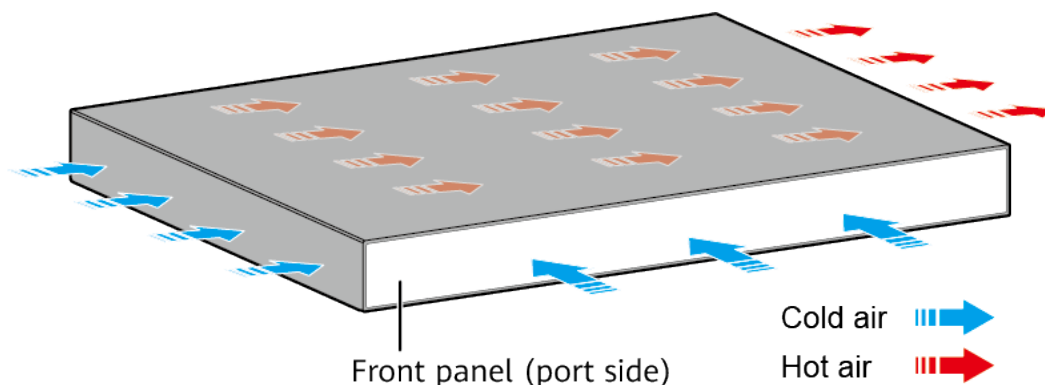
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5720-28X-SI-24S-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-542 lists technical specifications of the S5720-28X-SI-24S-DC.

Table 4-542 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.1 kg (9.04 lb)
Stack ports	GE SFP optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	42.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	30.3 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 43 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010626

4.11.10 S5721-28X-SI-24S-AC

Version Mapping

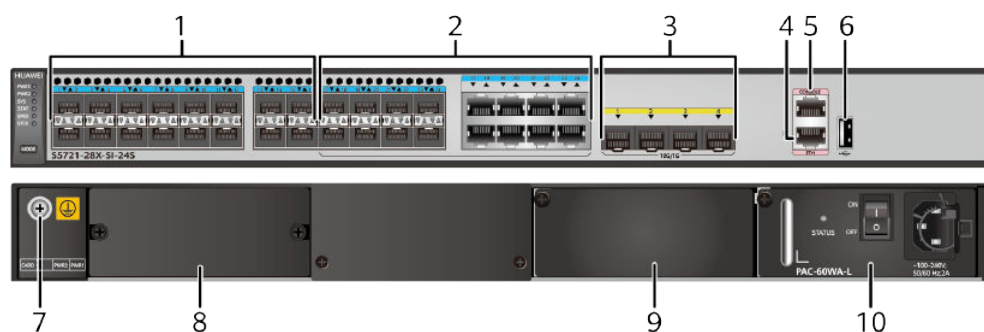
Table 4-543 lists the mapping between the S5721-28X-SI-24S-AC chassis and software versions.

Table 4-543 Version mapping

Series		Switch Model	Software Version
S5720-SI	S5720-X-SI	S5721-28X-SI-24S-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 4-208 S5721-28X-SI-24S-AC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One ETH management port</p>

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE This slot is reserved for future use.
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module • 150 W DC power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module • 150 W DC power module

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-544](#) describes the attributes of a 100/1000BASE-X port.

Table 4-544 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-545](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-545 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-546](#).

Table 4-546 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-547](#) describes the attributes of an ETH management port.

Table 4-547 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

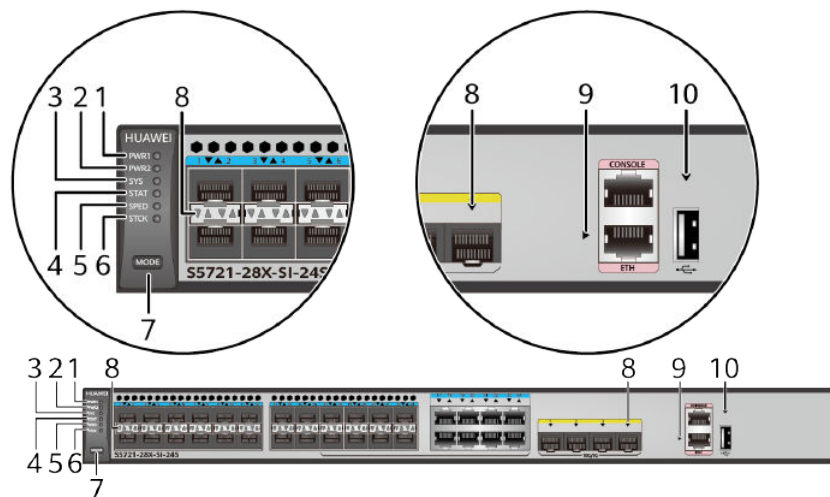
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-209 Indicators on the S5721-28X-SI-24S-AC



NOTE

The S5720-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 4-548 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-549 and Table 4-550 .		
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-549 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green	Blinking	<p>The switch is the master switch in a stack.</p> <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 4-550 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	<p>10M/100M/1000M port: The port is operating at 10/100 Mbit/s.</p> <p>100M/1000M port: The port is operating at 100 Mbit/s.</p>
	Green and yellow	Blinking	<p>10M/100M/1000M port: The port is operating at 1000 Mbit/s.</p> <p>100M/1000M port: The port is operating at 1000 Mbit/s.</p>
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	<p>The switch is not the master switch in a stack.</p> <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

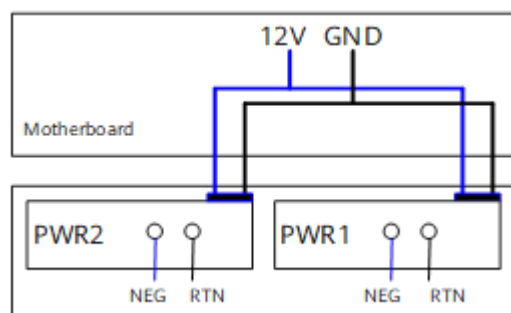
The S5721-28X-SI-24S-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W AC power module and a 150 W DC power module is used in the same switch, the maximum output power of the 150 W DC power module is 60 W.

Figure 4-210 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-210 Power supply connections of dual DC power modules



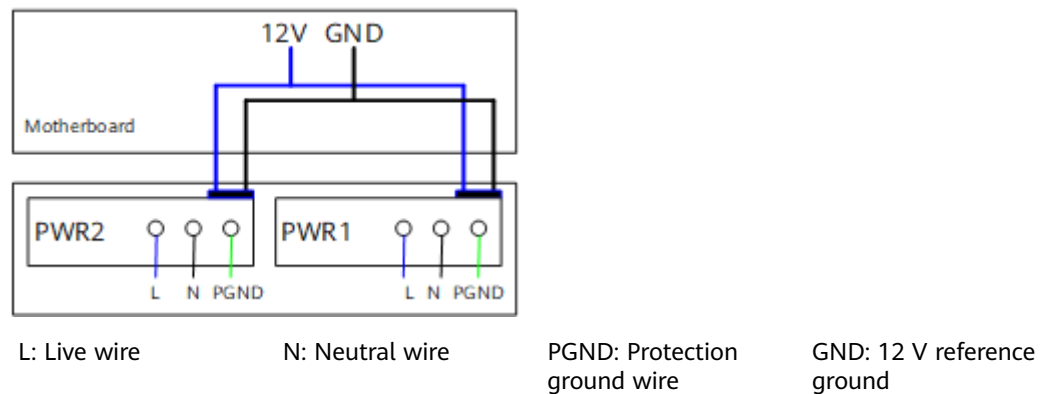
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

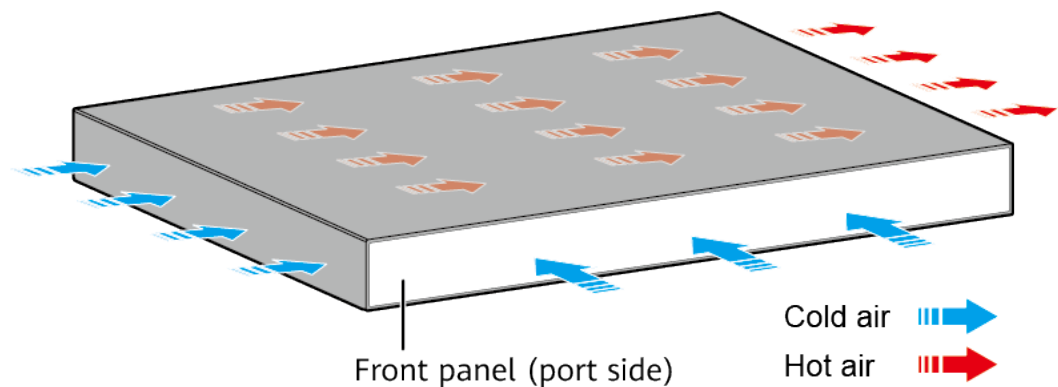
Figure 4-211 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-211 Power supply connections of dual AC power modules



Heat Dissipation

The S5721-28X-SI-24S-AC has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-551 lists technical specifications of the S5721-28X-SI-24S-AC.

Table 4-551 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	36 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.)
Weight (including package)	8.6 kg (18.96 lb)
Stack ports	GE optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	41 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	34.5 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010661

4.11.11 S5720-52X-SI-AC

Version Mapping

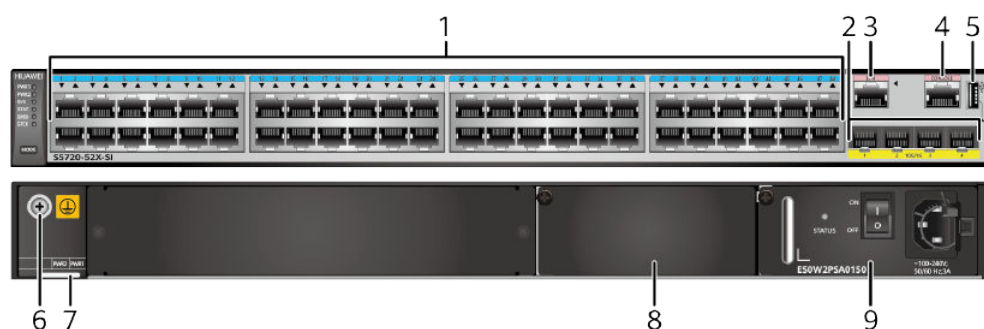
[Table 4-552](#) lists the mapping between the S5720-52X-SI-AC chassis and software versions.

Table 4-552 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 4-212 S5720-52X-SI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>	8	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module
9	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-553](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-553 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-554](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-554 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see **Table 4-555**.

Table 4-555 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-556** describes the attributes of an ETH management port.

Table 4-556 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-52X-SI-AC has similar indicators to those on the S5720-52X-PWR-SI-AC, except that the S5720-52X-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

Figure 4-213 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-213 Power supply connections of dual DC power modules

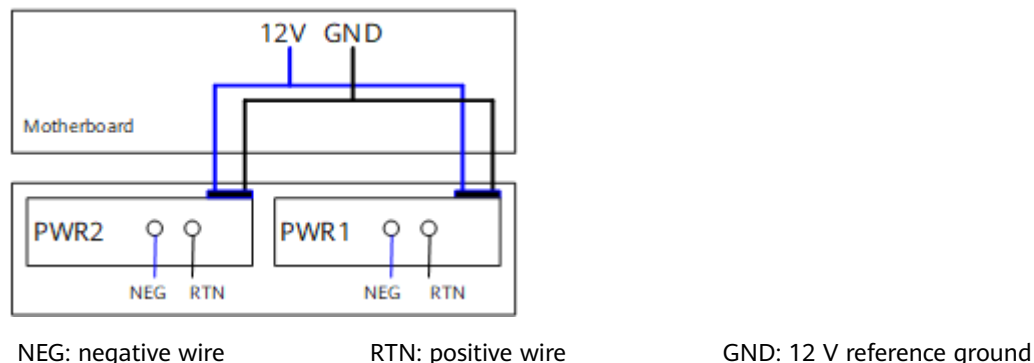
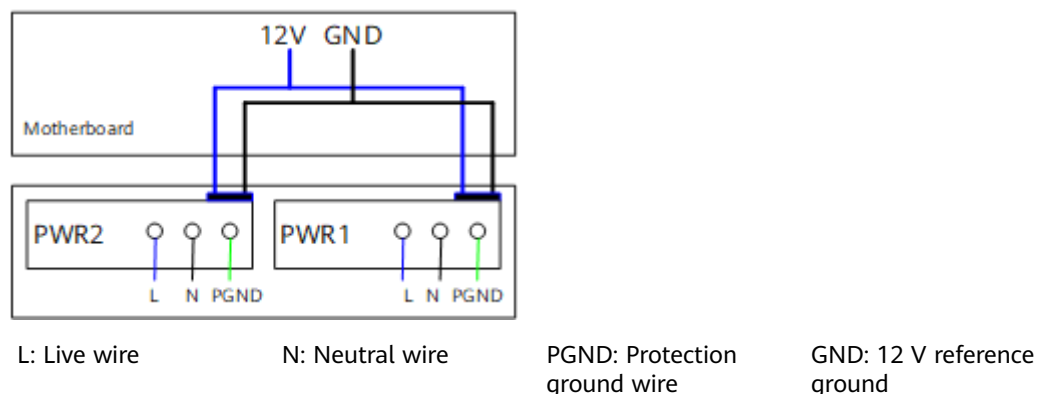


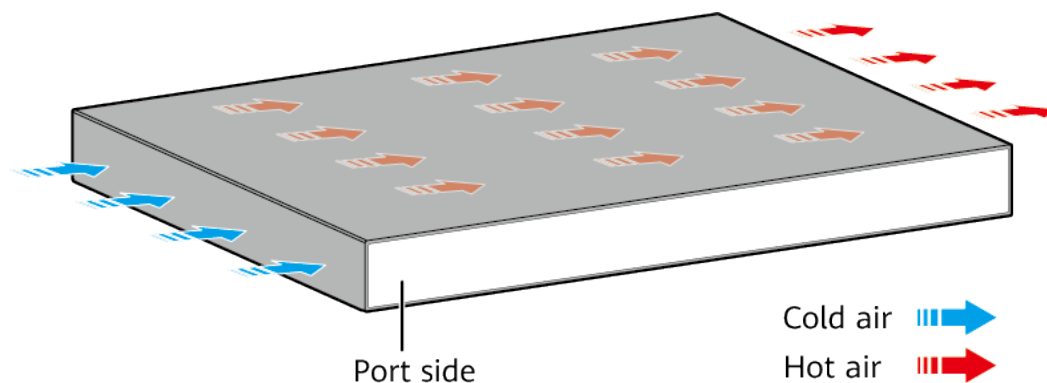
Figure 4-214 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-214 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-52X-SI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-557 lists technical specifications of the S5720-52X-SI-AC.

Table 4-557 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.23 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.5 kg (20.95 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	56.8 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	33.8 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02350DLV

4.11.12 S5720-52X-SI-DC

Version Mapping

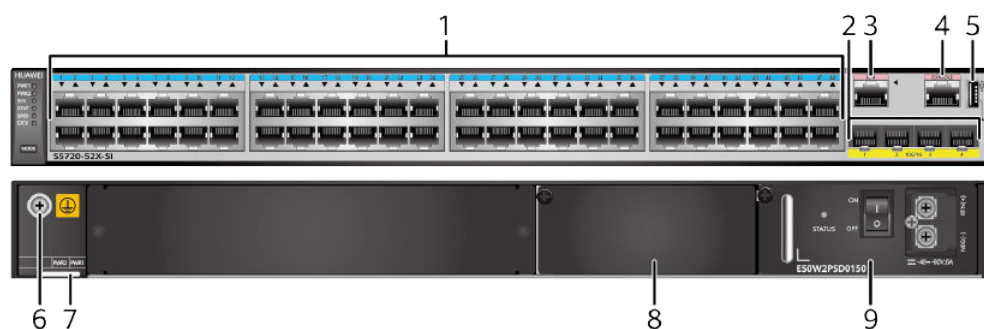
Table 4-558 lists the mapping between the S5720-52X-SI-DC chassis and software versions.

Table 4-558 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-215 S5720-52X-SI-DC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-559](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-559 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-560](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-560 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-561](#).

Table 4-561 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-562](#) describes the attributes of an ETH management port.

Table 4-562 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-52X-SI-DC has similar indicators to those on the S5720-52X-PWR-SI-AC, except that the S5720-52X-SI-DC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

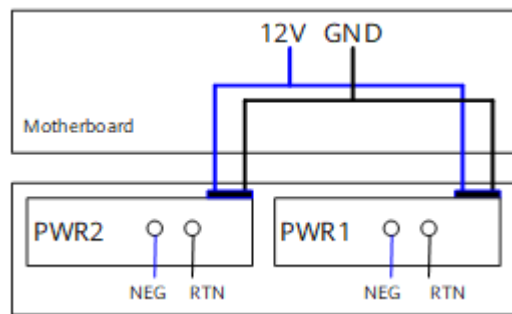
The S5720-52X-SI-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

Figure 4-216 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-216 Power supply connections of dual DC power modules



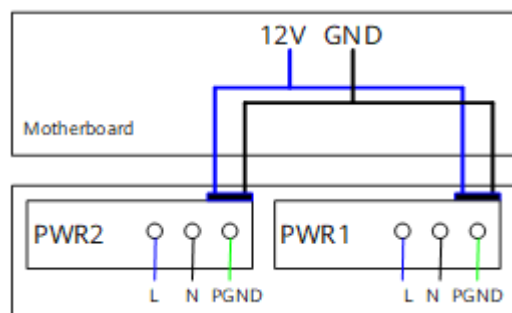
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-217 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-217 Power supply connections of dual AC power modules



L: Live wire

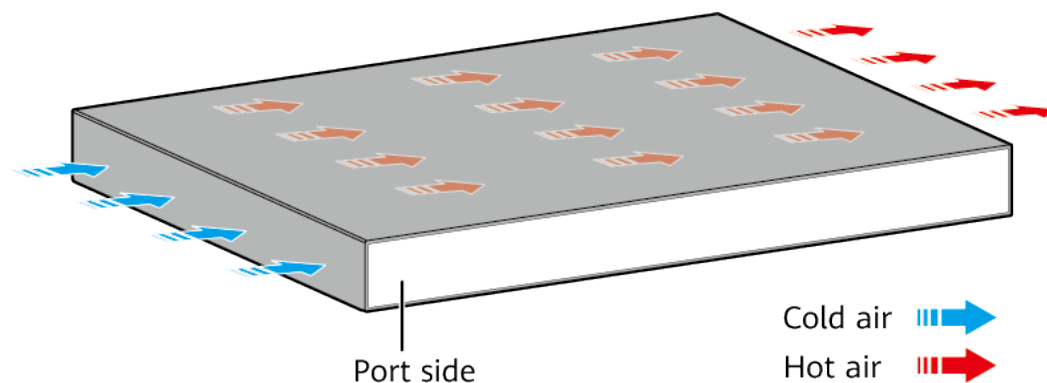
N: Neutral wire

PGND: Protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5720-52X-SI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-563 lists technical specifications of the S5720-52X-SI-DC.

Table 4-563 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.23 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.5 kg (20.95 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	57.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	34 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02350NGV

4.11.13 S5720-52X-PWR-SI-AC

Version Mapping

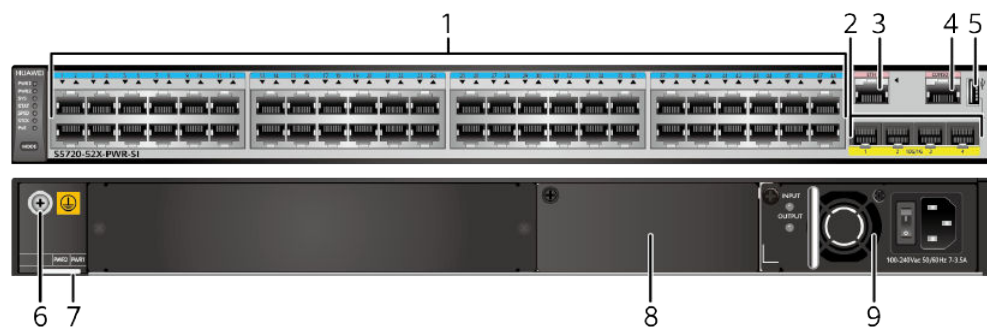
Table 4-564 lists the mapping between the S5720-52X-PWR-SI-AC chassis and software versions.

Table 4-564 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-PWR-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 4-218 S5720-52X-PWR-SI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-565](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-565 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-566](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-566 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-567](#).

Table 4-567 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-568](#) describes the attributes of an ETH management port.

Table 4-568 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

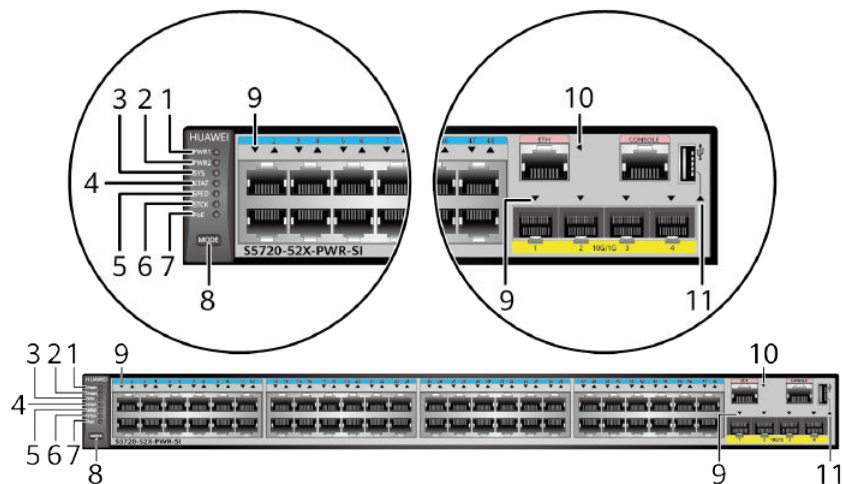
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-219 Indicators on the S5720-52X-PWR-SI-AC



NOTE

The S5720-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720-SI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-569 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.

No.	Indicator	Name	Color	Status	Description
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Yellow	Blinking	The system is in the sleep state. NOTE The system can wake from the sleeping state if you press the MODE button. Only non-PoE model supports sleep state.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-570 .		
10	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-570 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.

Display Mode	Color	Status	Description
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-52X-PWR-SI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 4-571](#) lists its power supply configurations.

Table 4-571 Power supply configurations

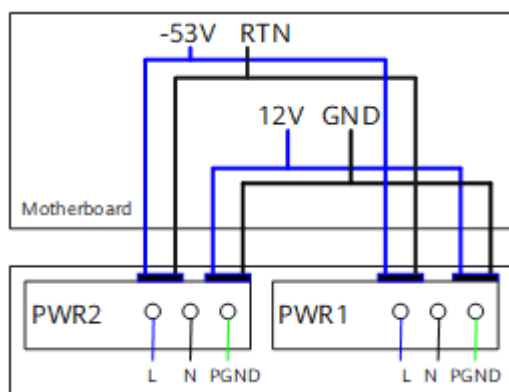
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-220 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

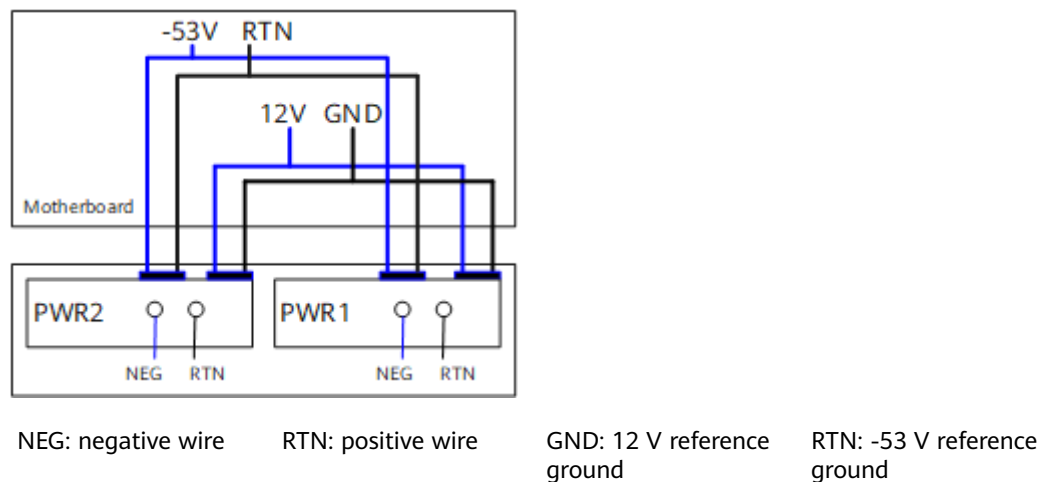
Figure 4-220 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

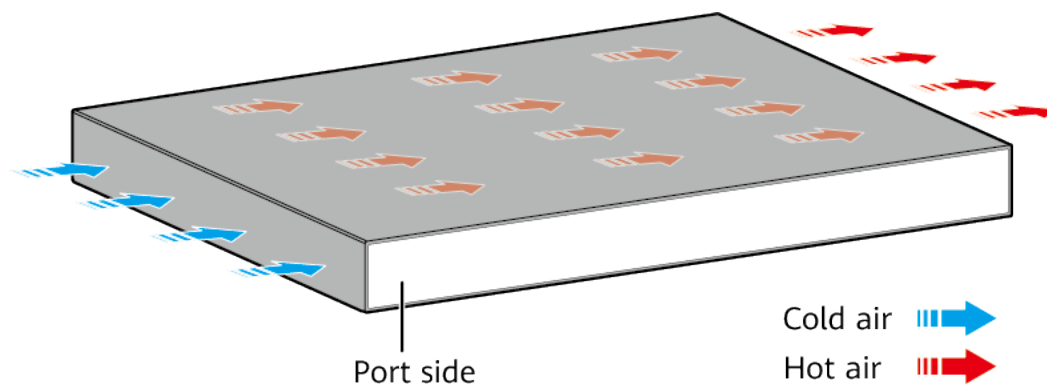
Figure 4-221 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 4-221 Power supply connections of dual DC PoE power modules



Heat Dissipation

The S5720-52X-PWR-SI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-572](#) lists technical specifications of the S5720-52X-PWR-SI-AC.

Table 4-572 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	50.86 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.6 kg (21.17 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 93.1 W 100% PoE loads: 943.2 W (system power consumption: 203.2 W, PoE: 740 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	51 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLX

4.11.14 S5720-52X-PWR-SI-DC

Version Mapping

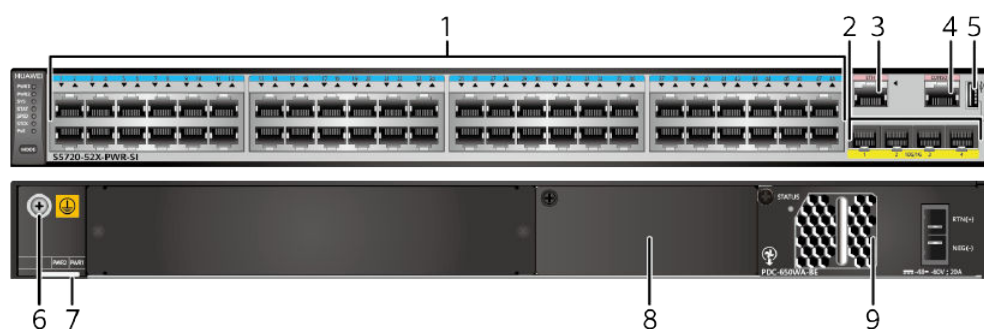
Table 4-573 lists the mapping between the S5720-52X-PWR-SI-DC chassis and software versions.

Table 4-573 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-PWR-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-222 S5720-52X-PWR-SI-DC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>	8	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module
9	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-574](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-574 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-575](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-575 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-576](#).

Table 4-576 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-577](#) describes the attributes of an ETH management port.

Table 4-577 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-52X-PWR-SI-DC has the same types of indicators as the S5720-52X-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-PWR-SI-DC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 4-578](#) lists its power supply configurations.

Table 4-578 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12

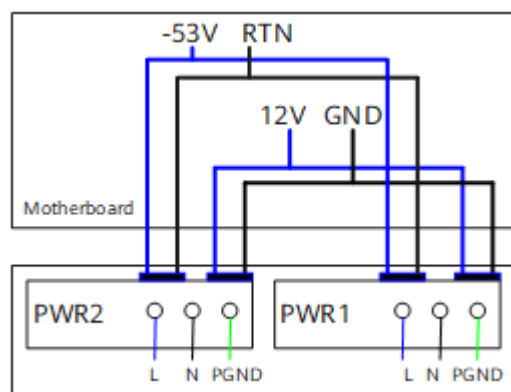
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-223 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

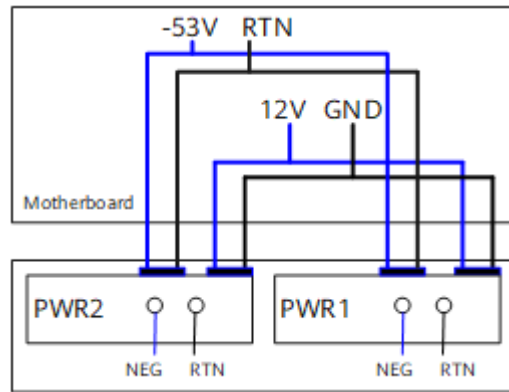
Figure 4-223 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-224 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 4-224 Power supply connections of dual DC PoE power modules



NEG: negative wire

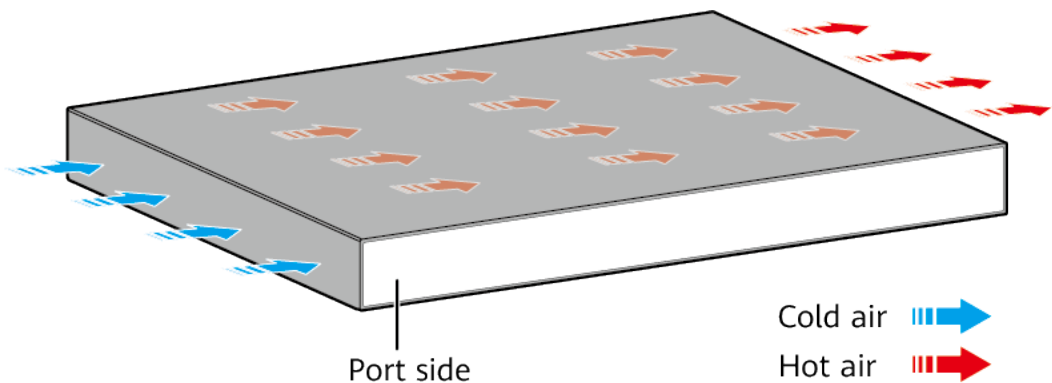
RTN: positive wire

GND: 12 V reference ground

RTN: -53 V reference ground

Heat Dissipation

The S5720-52X-PWR-SI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-579 lists technical specifications of the S5720-52X-PWR-SI-DC.

Table 4-579 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	50.86 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.6 kg (21.17 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 93.1 W 100% PoE loads: 943.2 W (system power consumption: 203.2 W, PoE: 740 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	51 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NGX

4.11.15 S5720-52X-PWR-SI-ACF

Version Mapping

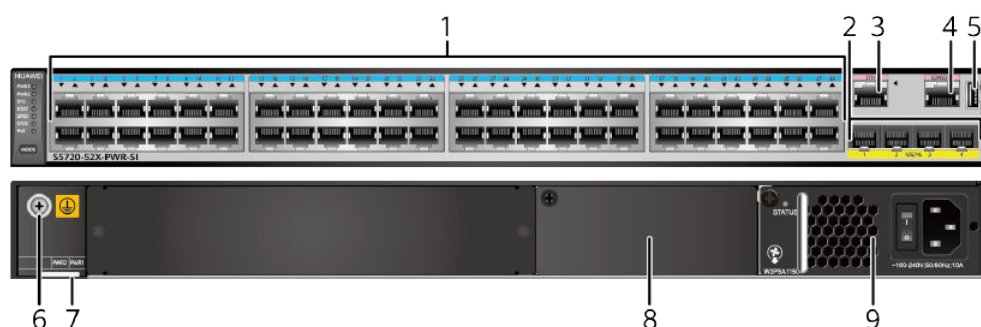
Table 4-580 lists the mapping between the S5720-52X-PWR-SI-ACF chassis and software versions.

Table 4-580 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-PWR-SI-ACF	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 4-225 S5720-52X-PWR-SI-ACF appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>	8	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)
9	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-581](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-581 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-582](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-582 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-583](#).

Table 4-583 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-584](#) describes the attributes of an ETH management port.

Table 4-584 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-52X-PWR-SI-ACF has the same types of indicators as the S5720-52X-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-PWR-SI-ACF is a PoE switch. It has two power module slots and uses 1150 W AC PoE power modules or 1000 W AC PoE power modules (applicable in V200R013C00 and later versions). A 1150 W AC PoE power module and a 1000 W AC PoE power module can be used together. [Table 4-585](#) lists its power supply configurations.

Table 4-585 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 29 802.3at (30 W per port): 14
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29

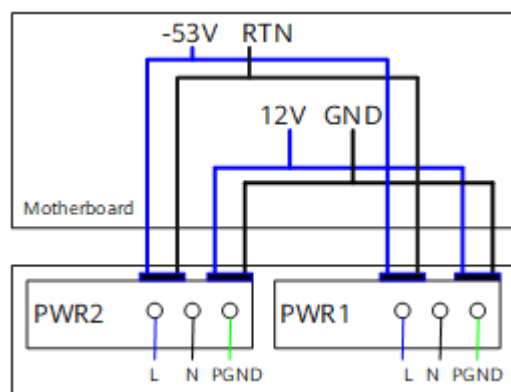
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-226 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

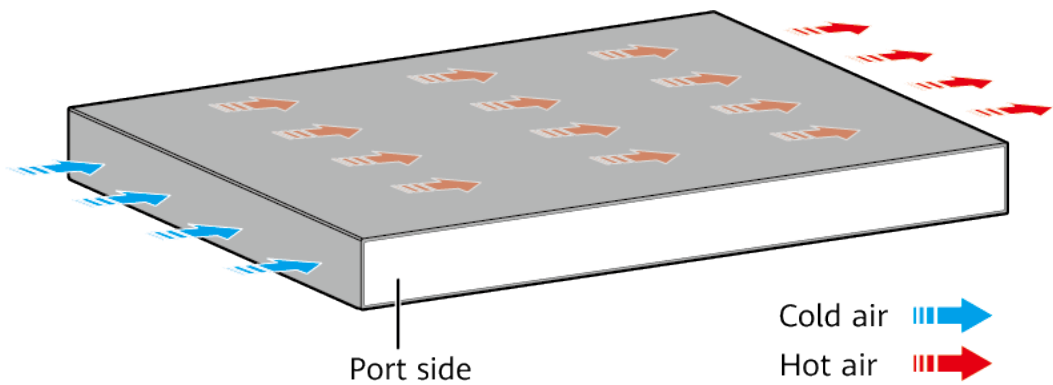
Figure 4-226 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-52X-PWR-SI-ACF has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-586 lists technical specifications of the S5720-52X-PWR-SI-ACF.

Table 4-586 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.86 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 510.5 mm (1.75 in. x 17.4 in. x 20.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 541.1 mm (1.75 in. x 17.4 in. x 21.3 in.)

Item	Description
Weight (with packaging)	10 kg (22.05 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Not providing the PoE function: 94.8 W ● 100% PoE loads: 1631.5 W (system power consumption: 191.5 W, PoE: 1440 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	57 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLY

4.11.16 S5720-52X-SI-48S

Version Mapping

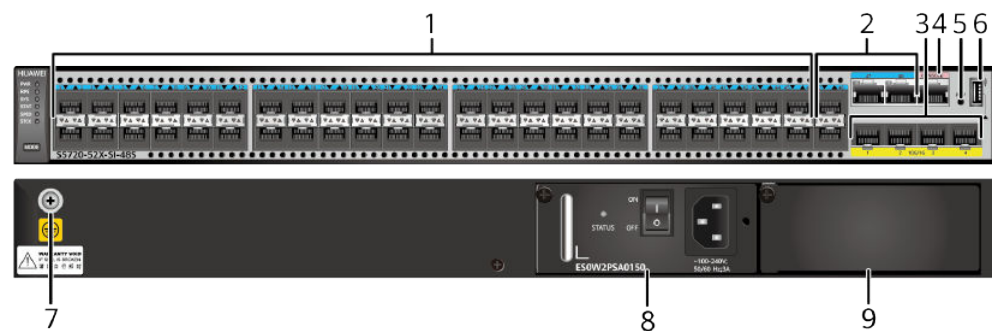
[Table 4-587](#) lists the mapping between the S5720-52X-SI-48S chassis and software versions.

Table 4-587 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-SI-48S	V200R013C00 to V200R019C10 versions

Appearance and Structure

Figure 4-227 S5720-52X-SI-48S appearance



1	<p>Forty-six 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (for OADM scenarios only) • GE-DWDM optical module • GE copper module 	2	<p>Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario)
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ stack cables (only applicable to zero-configuration stacking) • H87MMA5671A2 GPON optical module <p>NOTE If one port uses a GPON optical module, other ports cannot be used.</p>	4	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	<p>One PNP button</p> <p>NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
9	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-588](#) describes the attributes of a 100/1000BASE-X port.

Table 4-588 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-589](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-589 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-590](#).

Table 4-590 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

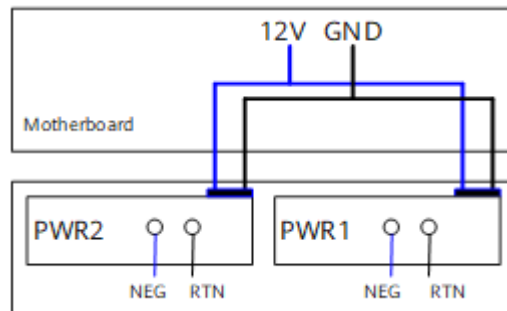
The S5720-52X-SI-48S has similar indicators to those of the S5721-28X-SI-24S-AC, except that the S5720-52X-SI-48S does not have an ETH management port. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-SI-48S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-228 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-228 Power supply connections of dual DC power modules



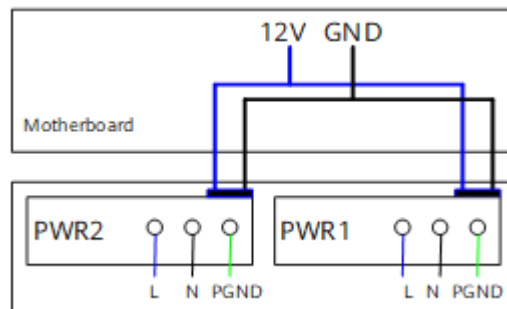
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-229 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-229 Power supply connections of dual AC power modules



L: Live wire

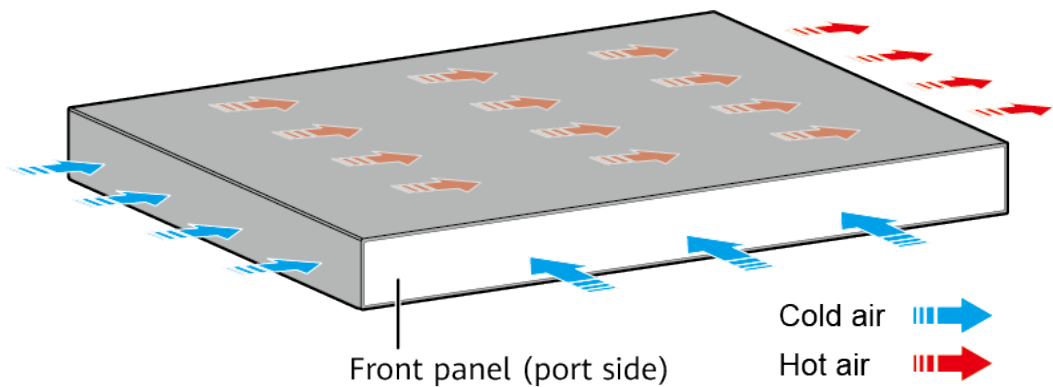
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720-52X-SI-48S has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-591 lists technical specifications of the S5720-52X-SI-48S.

Table 4-591 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	35.23 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.9 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.)

Item	Description
Weight (with packaging)	8.05 kg (17.75 lb)
Stack ports	GE optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	85 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	65 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010814

4.12 S5720S-SI

4.12.1 S5720S-28P-SI-AC

Version Mapping

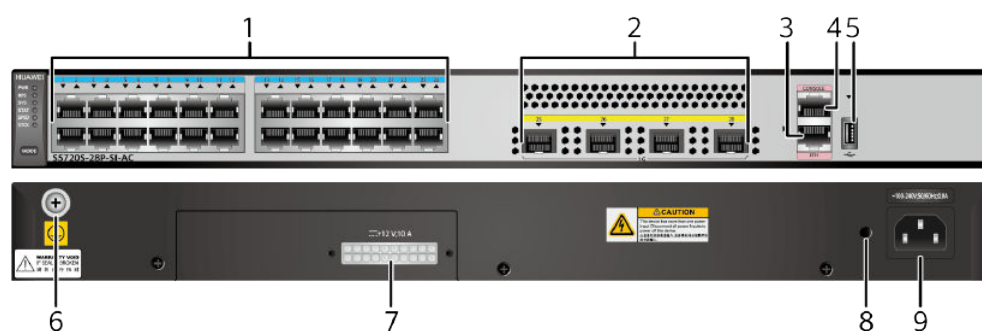
Table 4-592 lists the mapping between the S5720S-28P-SI-AC chassis and software versions.

Table 4-592 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-P-SI	S5720S-28P-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 4-230 S5720S-28P-SI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 5 m SFP+ high-speed copper cable (only for stack ports and applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-593](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-593 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. When a 1000BASE-X port uses a 10GE optical module, SFP+ high-speed copper cable, or active optical cable (AOC), the port can only be used for stack connection. [Table 4-594](#) describes the attributes of a 1000BASE-X port.

Table 4-594 Attributes of a 1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-595](#).

Table 4-595 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-596](#) describes the attributes of an ETH management port.

Table 4-596 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

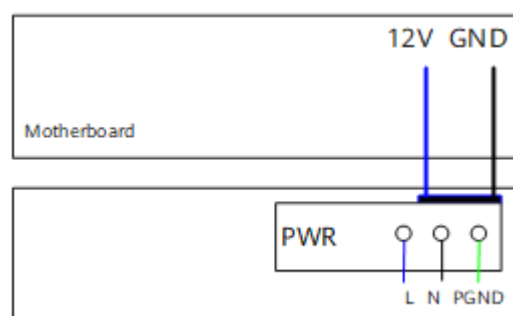
The S5720S-28P-SI-AC has the same types of indicators as the S5720S-52X-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28P-SI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 4-231 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-231 Power supply mode of a built-in AC power module



L: live wire

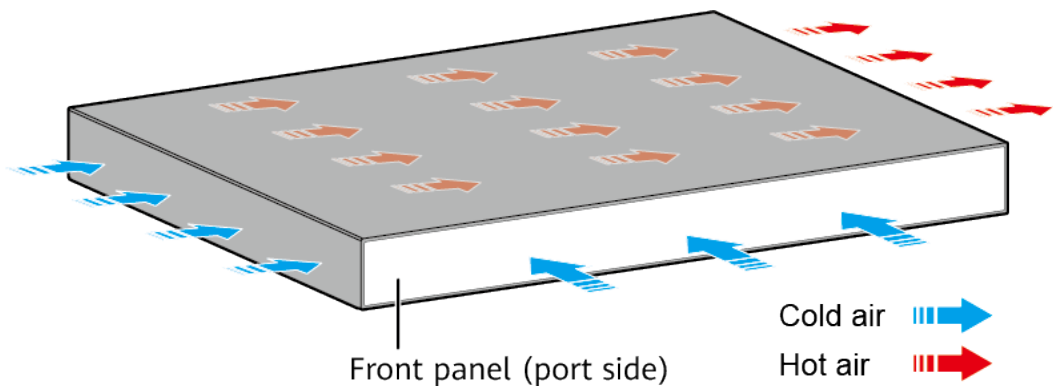
N: neutral wire

PGND: protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720S-28P-SI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-597](#) lists technical specifications of the S5720S-28P-SI-AC.

Table 4-597 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	104.92 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.8 kg (10.58 lb)
Stack ports	GE electrical ports and GE SFP optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	29.1 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	20.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLN

4.12.2 S5720S-52P-SI-AC

Version Mapping

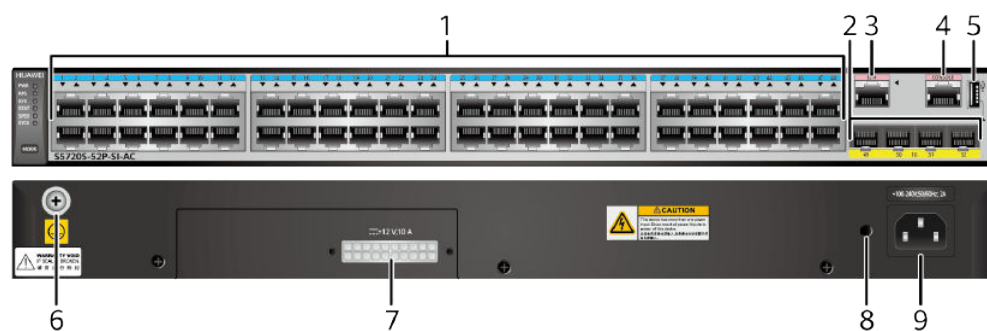
[Table 4-598](#) lists the mapping between the S5720S-52P-SI-AC chassis and software versions.

Table 4-598 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-P-SI	S5720S-52P-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 4-232 S5720S-52P-SI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 5 m SFP+ high-speed copper cable (only for stack ports and applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-599](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-599 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. When a 1000BASE-X port uses a 10GE optical module, SFP+ high-speed copper cable, or active optical cable (AOC), the port can only be used for stack connection. [Table 4-600](#) describes the attributes of a 1000BASE-X port.

Table 4-600 Attributes of a 1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-601](#).

Table 4-601 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-602](#) describes the attributes of an ETH management port.

Table 4-602 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

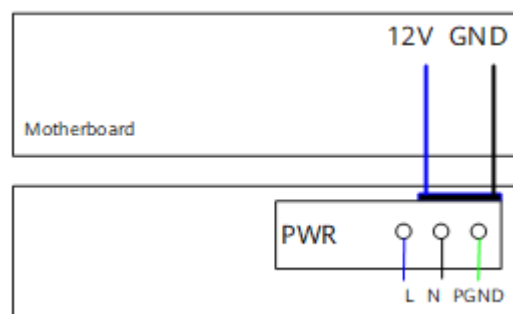
The S5720S-52P-SI-AC has the same types of indicators as the S5720S-52X-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52P-SI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 4-233](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-233 Power supply mode of a built-in AC power module



L: live wire

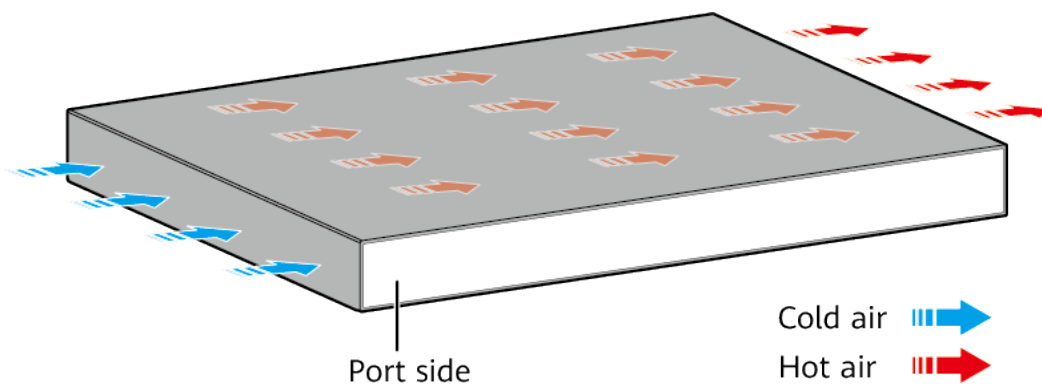
N: neutral wire

PGND: protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720S-52P-SI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-603](#) lists technical specifications of the S5720S-52P-SI-AC.

Table 4-603 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	90.07 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	5 kg (11.02 lb)
Stack ports	GE electrical ports and GE SFP optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	51.5 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	33 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLQ

4.12.3 S5720S-28X-SI-AC

Version Mapping

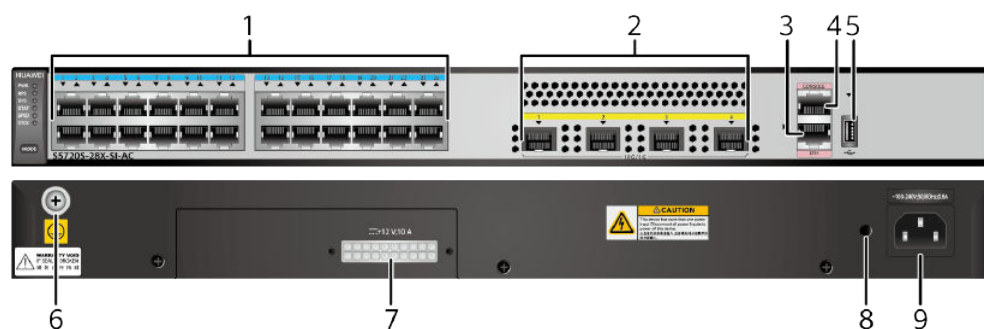
[Table 4-604](#) lists the mapping between the S5720S-28X-SI-AC chassis and software versions.

Table 4-604 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-X-SI	S5720S-28X-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 4-234 S5720S-28X-SI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-605](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-605 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-606](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-606 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-607](#).

Table 4-607 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-608](#) describes the attributes of an ETH management port.

Table 4-608 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

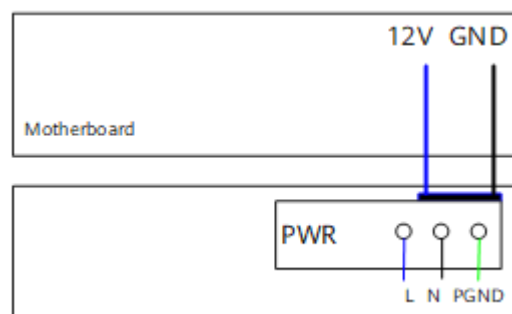
The S5720S-28X-SI-AC has the same types of indicators as the S5720S-52X-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28X-SI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 4-235](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-235 Power supply mode of a built-in AC power module



L: live wire

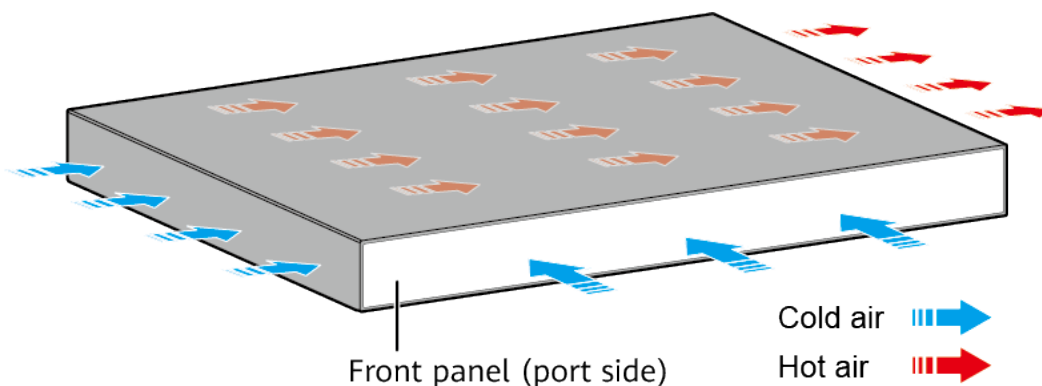
N: neutral wire

PGND: protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720S-28X-SI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-609](#) lists technical specifications of the S5720S-28X-SI-AC.

Table 4-609 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	100.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.8 kg (10.58 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	32 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	22 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLP

4.12.4 S5720S-28X-SI-DC

Version Mapping

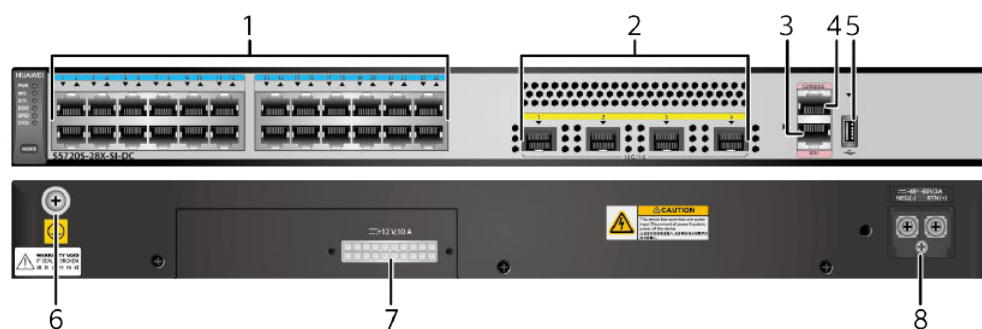
Table 4-610 lists the mapping between the S5720S-28X-SI-DC chassis and software versions.

Table 4-610 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-X-SI	S5720S-28X-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-236 S5720S-28X-SI-DC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-611](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-611 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-612](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-612 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 4-613](#).

Table 4-613 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-614](#) describes the attributes of an ETH management port.

Table 4-614 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

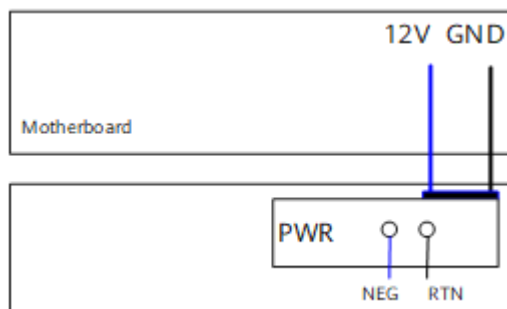
The S5720S-28X-SI-DC has the same types of indicators as the S5720S-52X-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28X-SI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 4-237 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-237 Power supply by a single DC power module



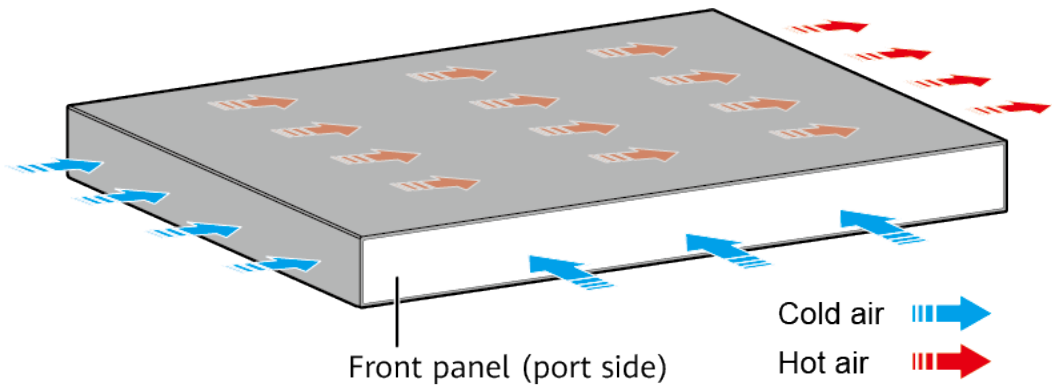
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5720S-28X-SI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-615](#) lists technical specifications of the S5720S-28X-SI-DC.

Table 4-615 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	100.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.8 kg (10.58 lb)

Item	Description
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	33 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	21.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NGY

4.12.5 S5720S-52X-SI-AC

Version Mapping

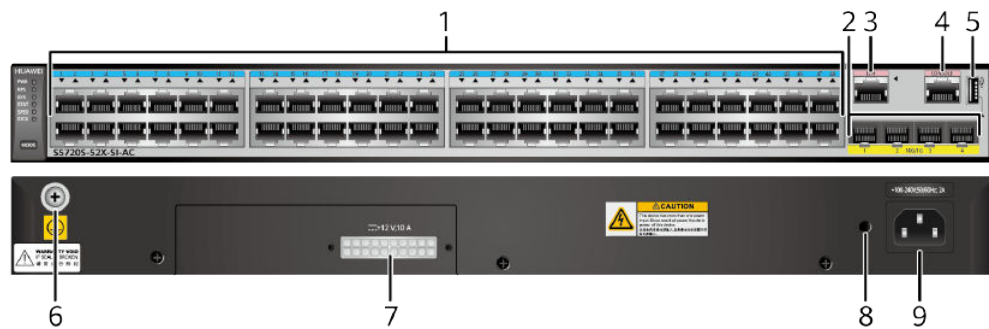
[Table 4-616](#) lists the mapping between the S5720S-52X-SI-AC chassis and software versions.

Table 4-616 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-X-SI	S5720S-52X-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 4-238 S5720S-52X-SI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-617](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-617 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-618](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-618 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-619](#).

Table 4-619 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-620](#) describes the attributes of an ETH management port.

Table 4-620 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

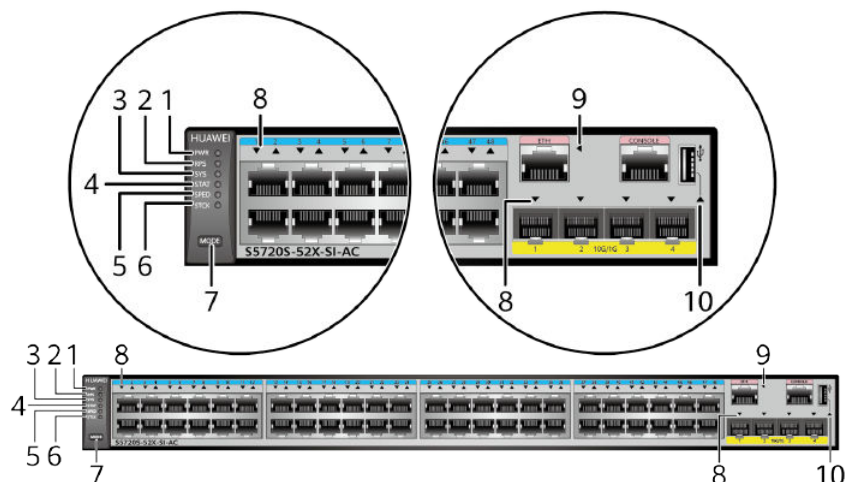
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-239 Indicators on the S5720S-52X-SI-AC



 **NOTE**

The S5720S-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators. When an S5720S-SI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-621 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
			Yellow	Steady on	The built-in power module has failed, and the switch is receiving power from a redundant power supply (RPS).
2	RPS	RPS indicator	-	Off	The switch is not connected to an RPS.
			Green	Steady on	The RPS is in cold standby state.
			Green	Blinking	The RPS is supplying power to another switch.
			Yellow	Blinking	The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Yellow	Blinking	The system is in the sleep state. NOTE The system can wake from the sleeping state if you press the MODE button.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-622 .		
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-622 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

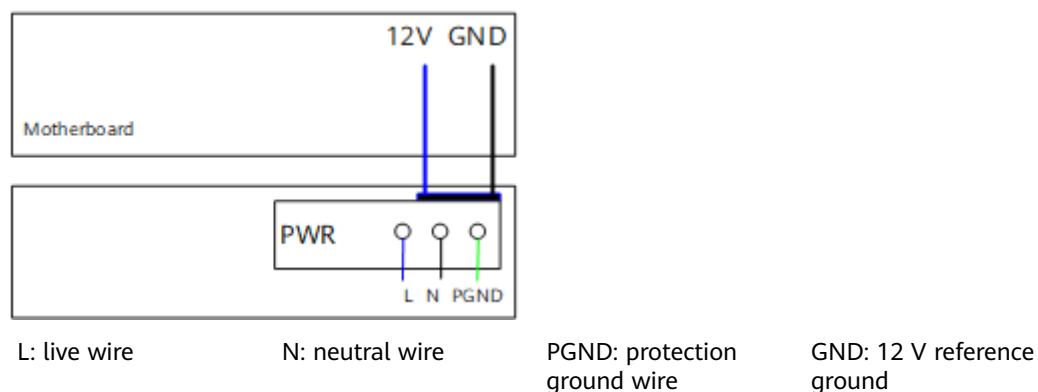
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720S-52X-SI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

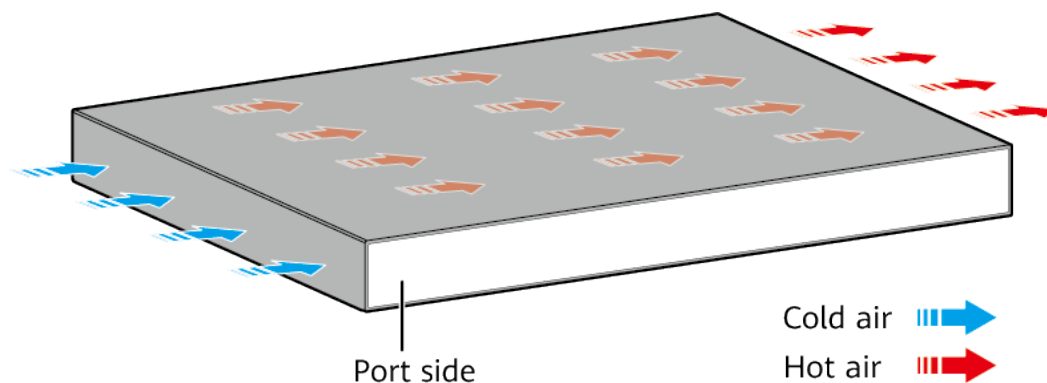
Figure 4-240 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-240 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-52X-SI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-623 lists technical specifications of the S5720S-52X-SI-AC.

Table 4-623 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	86.64 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	5 kg (11.02 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	54.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	34.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLR

4.12.6 S5720S-52X-SI-DC

Version Mapping

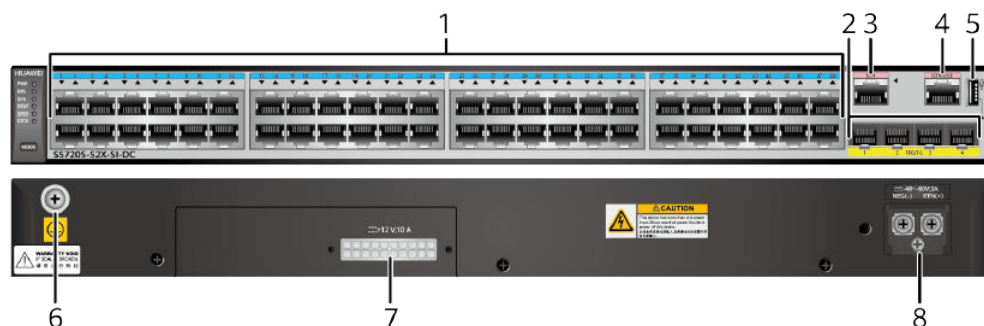
Table 4-624 lists the mapping between the S5720S-52X-SI-DC chassis and software versions.

Table 4-624 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-X-SI	S5720S-52X-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-241 S5720S-52X-SI-DC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	DC power terminal NOTE It is used together with a DC Power Cable .
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-625](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-625 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-626](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-626 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 4-627](#).

Table 4-627 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-628](#) describes the attributes of an ETH management port.

Table 4-628 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

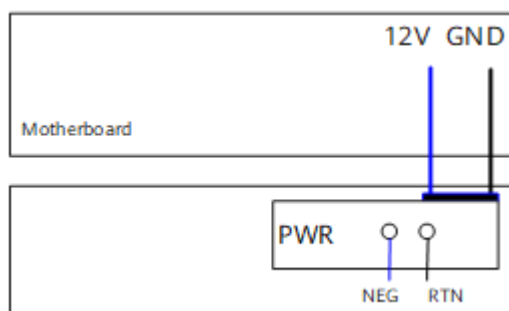
The S5720S-52X-SI-DC has the same types of indicators as the S5720S-52X-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52X-SI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 4-242 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-242 Power supply by a single DC power module



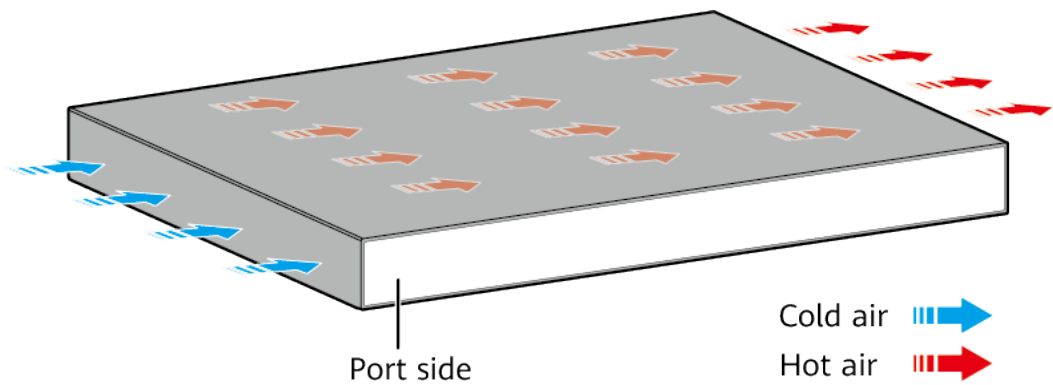
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5720S-52X-SI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-629 lists technical specifications of the S5720S-52X-SI-DC.

Table 4-629 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	86.64 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	5 kg (11.02 lb)

Item	Description
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	59.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	35.5 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02350NHA

4.13 S5720I-SI

4.13.1 S5720I-6X-PWH-SI-AC

Version Mapping

Table 4-630 lists the mapping between the S5720I-6X-PWH-SI-AC chassis and software versions.

Table 4-630 Version mapping

Series	Model	Software Version
S5720I-SI	S5720I-6X-PWH-SI-AC	V200R013C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-243 S5720I-6X-PWH-SI-AC appearance

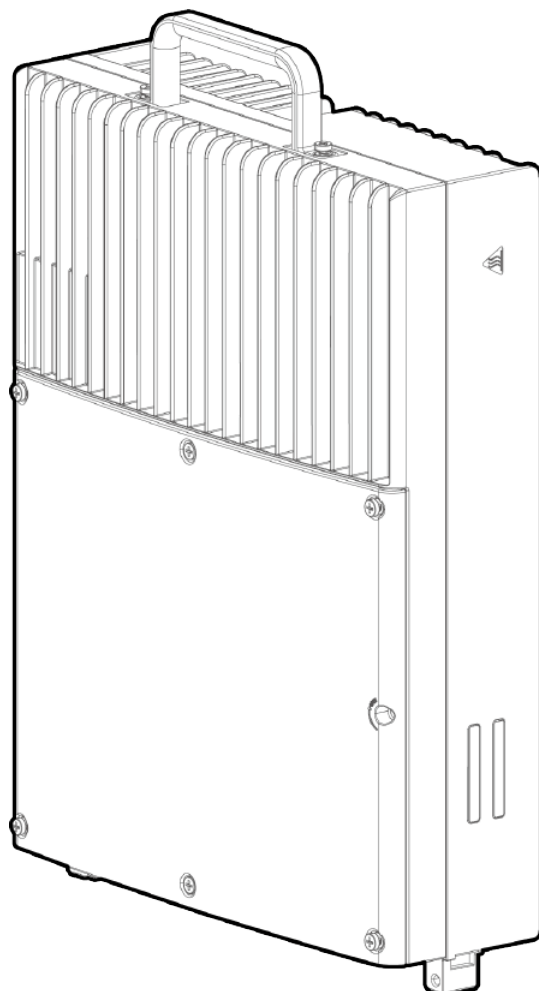
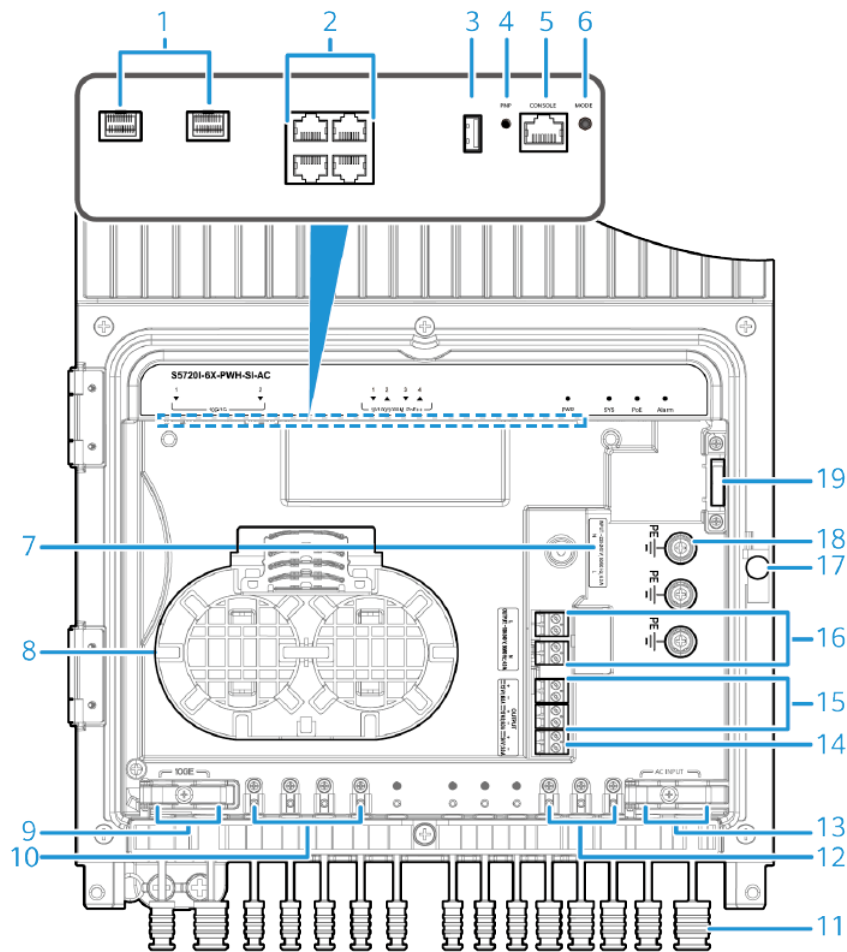


Figure 4-244 Interior of the S5720I-6X-PWH-SI-AC maintenance compartment



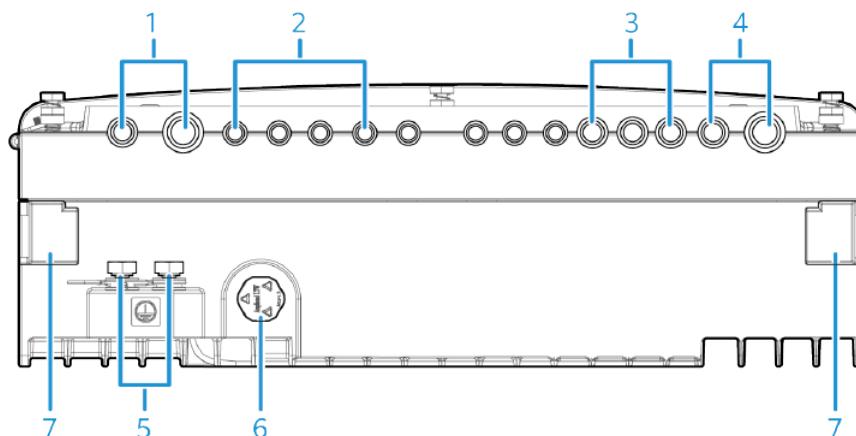
<p>1 Two 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • Industrial optical module • GPON optical module • Third-party GPON optical modules (Hisense LTE3415-SH+ and CIG G-97S) <p>NOTE</p> <p>If one port uses a GPON optical module, the other port cannot be used.</p> <p>The locking bar of an optical port is upward. If an optical module cannot be completely inserted into the optical port, do not force it into the port. Turn the optical module 180 degrees and try again.</p>	<p>2 Four PoE++ 10/100/1000BASE-T ports</p>
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3	One USB port	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	<p>MODE button</p> <p>NOTE</p> <p>The switch supports two indicator modes: status (default mode) and PoE. To change the current indicator mode, press the MODE button.</p> <p>Hold down the MODE button for 6 seconds and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> • If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of the PoE indicator is as follows: <ul style="list-style-type: none"> • If the system enters the web initial login mode successfully, the PoE indicator turns green and stays on for a maximum of 10 minutes. • If the system fails to enter the initial login mode, the PoE indicator fast blinks for 10 seconds and then restores to the default status. • If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, the PoE indicator fast blinks for 10 seconds, and then returns to the default status.

7	<p>AC power input socket</p> <p>NOTICE</p> <p>The external power supply system must be connected to a circuit breaker (20 A is recommended). For safety purposes, do not use a switch without a circuit breaker.</p> <p>An AC power input socket is used with a power connector, which is included in the installation accessory package delivered with the switch. A power cable needs to be connected to the power connector onsite. If no power cable is available, you can purchase one (part number: 25030398) from Huawei.</p>	8	<p>Fiber management tray (FMT)</p> <p>NOTE</p> <p>The FMT is removable.</p> <p>A maximum of four fused fibers are supported.</p> <p>Maximum length of a fiber that can be coiled up in the FMT: 20 m (for a single bare fiber) or 1 m (for a single fiber pigtail). If two fibers are used, this length is halved.</p>
9	<p>Two optical fiber outlets</p> <p>NOTE</p> <p>The diameter of optical fibers supported: 8±0.5 mm to 9.6±0.5 mm (on the left outlet) and 13.3±0.5 mm (on the right outlet).</p>	10	<p>Four Ethernet cable outlets</p> <p>NOTE</p> <p>Cat5e and Cat6 Ethernet cables are supported.</p>
11	<p>Rubber bungs for cable outlets</p> <p>NOTE</p> <p>Rubber bungs must be inserted into the idle cable outlets.</p>	12	<p>Three DC or AC output power cable outlets</p> <p>NOTE</p> <p>The diameter of power cables supported by an outlet is 9.3±0.5 mm.</p>
13	<p>Two AC input power cable outlets</p> <p>NOTE</p> <p>The diameter of power cables supported: 9.5±0.5 mm (on the left outlet) and 14±0.5 mm (on the right outlet).</p>	14	<p>AC power output socket 2</p> <p>NOTE</p> <p>The switch provides one 24 V AC output to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p> <p>One 24 V AC output provides a maximum of 72 W power.</p>

<p>1 5</p>	<p>DC power output socket</p> <p>NOTE</p> <p>The switch provides two 12 V DC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p> <p>Two 12 V DC outputs provide a total of 48 W power. The maximum power of a single output is 48 W.</p> <p>Two 12 V DC outputs and one 24 V AC output share power resources with PoE output. The total shared power is 150 W.</p>	<p>1 6</p>	<p>AC power output socket 1</p> <p>NOTICE</p> <p>Cables need to be connected to an AC power output socket onsite. Pay attention to the position of the L and N labels, ensuring that the cables are connected in the correct sockets.</p> <p>The switch provides 220 V AC power to external devices, such as strobe lights and non-PoE PTZ dome cameras. The maximum output current is 4 A.</p> <p>The internal 220 V AC power supply is used only for external power conversion. It has no circuit breaker, regulated voltage circuit, or surge protection.</p> <p>The connected devices must provide certain surge protection capabilities. Recommended values are 20 kA in differential mode and 20 kA in common mode.</p>
<p>1 7</p>	<p>Latch of the maintenance compartment</p> <p>NOTE</p> <ul style="list-style-type: none"> • You need to use the key provided in the installation accessory package to open the door of the maintenance compartment. • After the maintenance compartment door is closed, the latch is automatically locked. 	<p>1 8</p>	<p>PE cable ground terminal</p> <p>NOTE</p> <p>It is used to ground a PE power cable for 220 V AC input or output.</p>
<p>1 9</p>	<p>Door-opening alarm button</p> <p>NOTE</p> <p>When the door of the maintenance compartment is opened, a door-opening alarm is reported.</p>	<p>-</p>	<p>-</p>

Figure 4-245 Bottom of the S5720I-6X-PWH-SI-AC chassis



1	Two optical fiber outlets NOTE The diameter of optical fibers supported: 8 ± 0.5 mm to 9.6 ± 0.5 mm (on the left outlet) and 13.3 ± 0.5 mm (on the right outlet).	2	Four Ethernet cable outlets NOTE Cat5e and Cat6 Ethernet cables are supported.
3	Three DC or AC output power cable outlets NOTE The diameter of power cables supported by an outlet is 9.3 ± 0.5 mm.	4	Two AC input power cable outlets NOTE The diameter of power cables supported: 9.5 ± 0.5 mm (on the left outlet) and 14 ± 0.5 mm (on the right outlet).
5	Ground screw NOTE It is used to ground the switch. The ground cable needs to be purchased separately.	6	Atmospheric pressure valve NOTE It ensures that the atmospheric pressure inside and outside the switch are the same.
7	Mounting column for a cable cover NOTE It is used to mount an optional cable cover.	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-631](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-631 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s. <ul style="list-style-type: none">• The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm).• If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-632](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-632 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-633](#).

Table 4-633 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-246 Indicators on the outside of the S5720I-6X-PWH-SI-AC

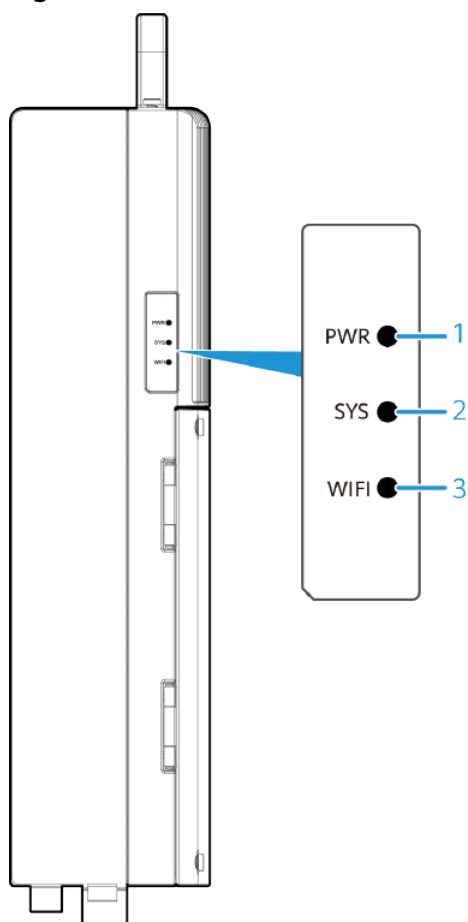


Figure 4-247 Indicators inside the maintenance compartment of the S5720I-6X-PWH-SI-AC

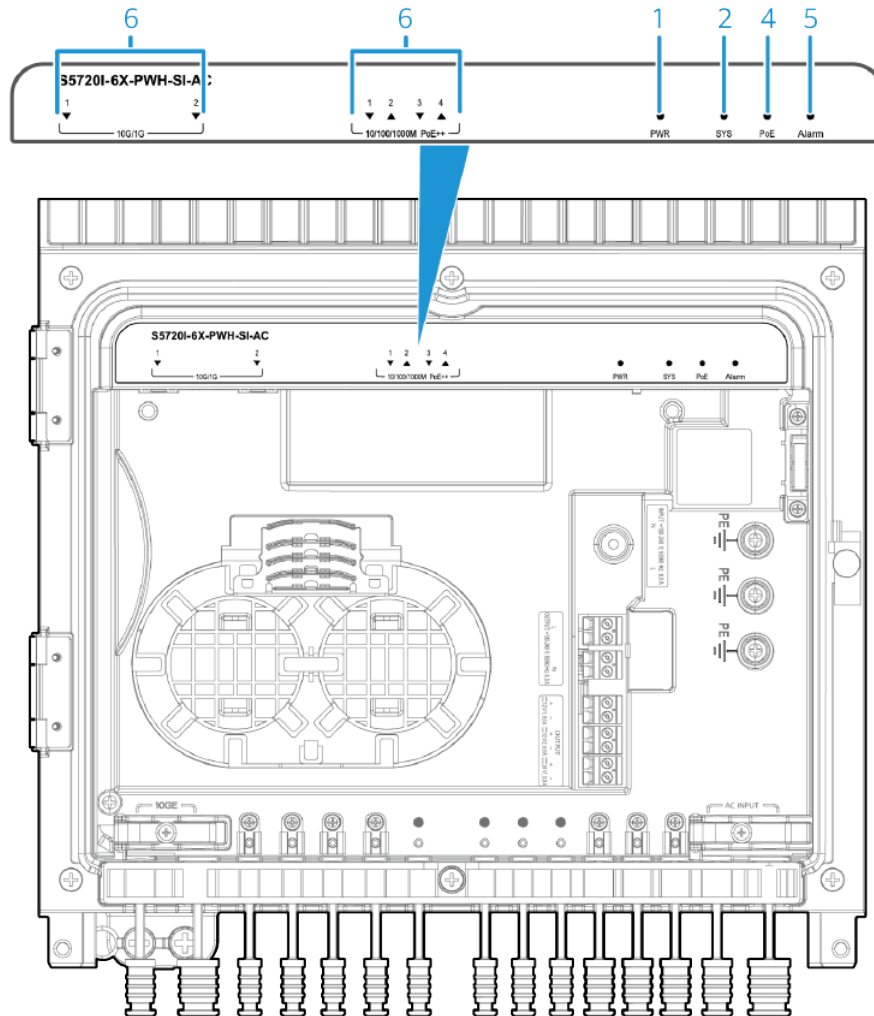


Table 4-634 Description of indicators

No.	Indicator	Name	Color	Status	Description
1	PWR	Built-in power supply indicator	-	Off	The switch is not powered on.
			Green	Steady on	The power module is supplying power normally.
			Yellow or red	Steady on	The built-in power module has failed.

No.	Indicator	Name	Color	Status	Description
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade.
			Green	Slow blinking	The system is operating properly.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
			Red	Blinking	The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
			Yellow	Blinking	The switch has restarted after a successful upgrade using a USB flash drive. You can remove the USB flash drive from the switch.
3	WIFI	Wi-Fi indicator	Red	Fast blinking	The Wi-Fi function is reserved for future use. You can configure the WIFI indicator on a switch to fast blink red, helping field maintenance personnel quickly find the switch.
4	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected. In this mode, the service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode. This indicator is steady green after you successfully log in to the switch for the first time using the MODE button.
			Green	Blinking	If you fail to log in to the switch for the first time using the MODE button, this indicator fast blinks for 10 seconds, and then returns to the default status.
5	Alarm	12 V DC and 24 V	-	Off	The 12 V DC or 24 V AC power supply is not in use or the output is normal.

No.	Indicator	Name	Color	Status	Description
		AC output power indicator	Red	Steady on	A short circuit has occurred for the 12 V DC or 24 V AC power supply. Check whether the external device is short-circuited.
6	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-635 .		

Table 4-635 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.

Power Supply Configuration

The S5720I-6X-PWH-SI-AC has a built-in power module and does not support pluggable power modules. The S5720I-6X-PWH-SI-AC can be connected to an external 220 V AC power supply. [Table 4-636](#) lists power supply configurations.

Table 4-636 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External 220 V AC power supply	150 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 4 • 802.3at (30 W per port): 4 • 802.3bt (60 W per port): 2

NOTE

The PoE output shares power resources with two 12 V DC outputs and one 24 V AC output. The shared power is 150 W.

Heat Dissipation

The S5720I-6X-PWH-SI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-637](#) lists technical specifications of the S5720I-6X-PWH-SI-AC.

Table 4-637 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41.29 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode

Item	Description
Power supply surge protection	Impulse current: <ul style="list-style-type: none"> ● AC input: 20 kA Surge: <ul style="list-style-type: none"> ● AC input: ± 6 kV in differential mode, ± 6 kV in common mode ● 12 V DC output: ± 2 kV in differential mode, ± 4 kV in common mode ● 24 V AC output: ± 2 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions: 390 mm x 300 mm x 110 mm (15.4 in. x 11.8 in. x 4.3 in.) ● Maximum dimensions: 474.75 mm x 303.3 mm x 110 mm (18.69 in. x 11.94 in. x 4.3 in.)
Weight (with packaging)	13.1 kg (28.88 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	220 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	176 V AC to 264 V AC, 45 Hz to 66 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> ● Without PoE: 26 W ● Total power consumption: 188 W (system power consumption: 38 W, total output power: 150 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	25 W

Item	Description
Operating temperature	-40°C to +55°C (-40°F to +131°F) NOTE When the altitude is 1800-4000 m (5906-13123 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch can start when the temperature is higher than -25°C (-13°F).
Storage temperature	-40°C to +85°C (-40°F to +185°F)
IP rating	IP66
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-4000 m (0-13123 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010835

4.13.2 S5720I-10X-PWH-SI-AC

Version Mapping

[Table 4-638](#) lists the mapping between the S5720I-10X-PWH-SI-AC chassis and software versions.

Table 4-638 Version mapping

Series	Model	Software Version
S5720I-SI	S5720I-10X-PWH-SI-AC	V200R013C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-248 S5720I-10X-PWH-SI-AC appearance

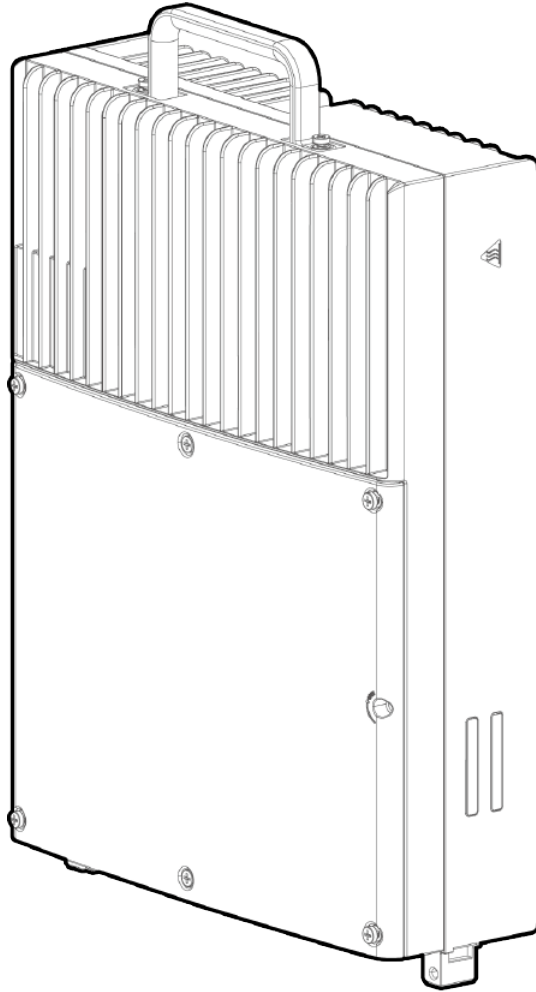
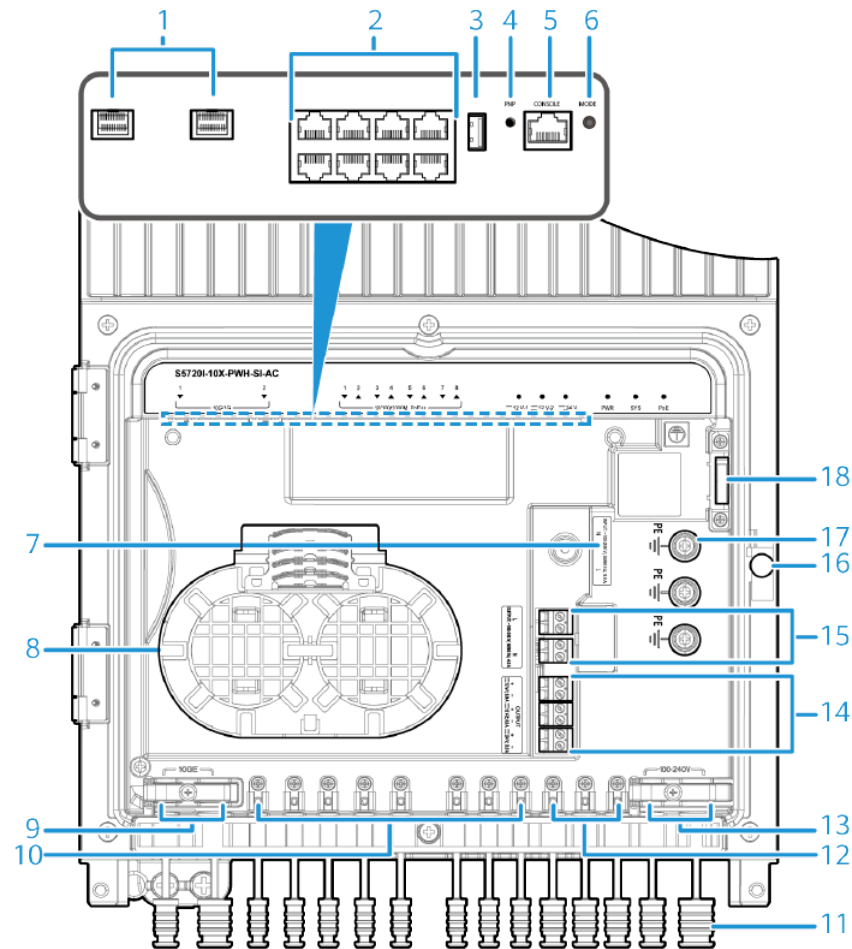


Figure 4-249 Interior of the S5720I-10X-PWH-SI-AC maintenance compartment



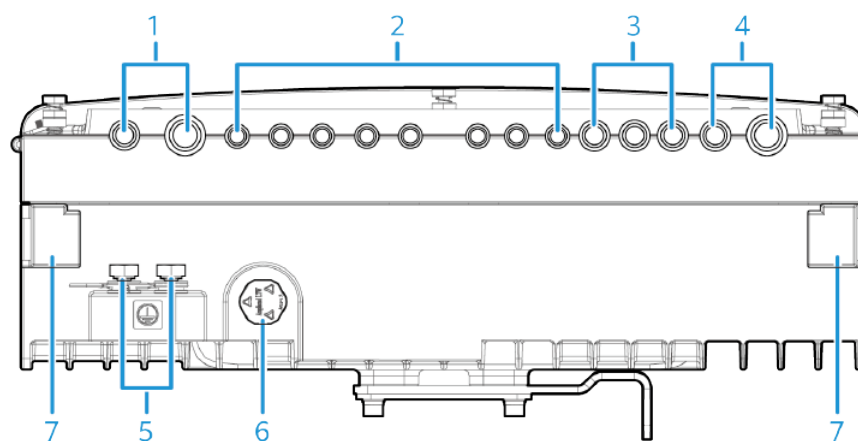
<p>1 Two 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • Industrial optical module • GPON optical module • Third-party GPON optical modules (Hisense LTE3415-SH+ and CIG G-97S) <p>NOTE</p> <p>If one port uses a GPON optical module, the other port cannot be used.</p> <p>The locking bar of an optical port is upward. If an optical module cannot be completely inserted into the optical port, do not force it into the port. Turn the optical module 180 degrees and try again.</p>	<p>2 Eight PoE++ 10/100/1000BASE-T ports</p>
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3	One USB port	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	<p>MODE button</p> <p>NOTE</p> <p>The switch supports two indicator modes: status (default mode) and PoE. To change the current indicator mode, press the MODE button.</p> <p>Hold down the MODE button for 6 seconds and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> • If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of the PoE indicator is as follows: <ul style="list-style-type: none"> • If the system enters the web initial login mode successfully, the PoE indicator turns green and stays on for a maximum of 10 minutes. • If the system fails to enter the initial login mode, the PoE indicator fast blinks for 10 seconds and then restores to the default status. • If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, the PoE indicator fast blinks for 10 seconds, and then returns to the default status.

7	<p>AC power input socket</p> <p>NOTICE</p> <p>The external power supply system must be connected to a circuit breaker (20 A is recommended). For safety purposes, do not use a switch without a circuit breaker.</p> <p>An AC power input socket is used with a power connector, which is included in the installation accessory package delivered with the switch. A power cable needs to be connected to the power connector onsite. If no power cable is available, you can purchase one (part number: 25030398) from Huawei.</p>	8	<p>Fiber management tray (FMT)</p> <p>NOTE</p> <p>The FMT is removable.</p> <p>A maximum of four fused fibers are supported.</p> <p>Maximum length of a fiber that can be coiled up in the FMT: 20 m (for a single bare fiber) or 1 m (for a single fiber pigtail). If two fibers are used, this length is halved.</p>
9	<p>Two optical fiber outlets</p> <p>NOTE</p> <p>The diameter of optical fibers supported: 8±0.5 mm to 9.6±0.5 mm (on the left outlet) and 13.3±0.5 mm (on the right outlet).</p>	10	<p>Eight Ethernet cable outlets</p> <p>NOTE</p> <p>Cat5e and Cat6 Ethernet cables are supported.</p>
11	<p>Rubber bungs for cable outlets</p> <p>NOTE</p> <p>Rubber bungs must be inserted into the idle cable outlets.</p>	12	<p>Three DC or AC output power cable outlets</p> <p>NOTE</p> <p>The diameter of power cables supported by an outlet is 9.3±0.5 mm.</p>
13	<p>Two AC input power cable outlets</p> <p>NOTE</p> <p>The diameter of power cables supported: 9.5±0.5 mm (on the left outlet) and 14±0.5 mm (on the right outlet).</p>	14	<p>DC power output socket</p> <p>NOTE</p> <p>The switch provides two 12 V DC outputs and one 24 V DC output to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p> <p>Two 12 V DC outputs provide a total of 96 W power. The maximum power of a single output is 96 W.</p> <p>One 24 V DC output provides a maximum of 72 W power.</p> <p>Two 12 V DC outputs and one 24 V DC output share power resources with PoE output. The total shared power is 175 W (110 V input) or 200 W (220 V input).</p>

<p>1 5</p>	<p>AC power output socket 1</p> <p>NOTICE</p> <p>Cables need to be connected to an AC power output socket onsite. Pay attention to the position of the L and N labels, ensuring that the cables are connected in the correct sockets.</p> <p>The switch provides 110 V or 220 V AC power to external devices, such as strobe lights and non-PoE PTZ dome cameras. The maximum output current is 4 A.</p> <p>The internal 110 V or 220 V AC power supply is used only for external power conversion. It has no circuit breaker, regulated voltage circuit, or surge protection.</p> <p>The connected devices must provide certain surge protection capabilities. Recommended values are 20 kA in differential mode and 20 kA in common mode.</p>	<p>1 6</p>	<p>Latch of the maintenance compartment</p> <p>NOTE</p> <ul style="list-style-type: none"> You need to use the key provided in the installation accessory package to open the door of the maintenance compartment. After the maintenance compartment door is closed, the latch is automatically locked.
<p>1 7</p>	<p>PE cable ground terminal</p> <p>NOTE</p> <p>It is used to ground a PE power cable for 220 V AC input or output.</p>	<p>1 8</p>	<p>Door-opening alarm button</p> <p>NOTE</p> <p>When the door of the maintenance compartment is opened, a door-opening alarm is reported.</p>

Figure 4-250 Bottom of the S5720I-10X-PWH-SI-AC chassis



<p>1</p>	<p>Two optical fiber outlets</p> <p>NOTE</p> <p>The diameter of optical fibers supported: 8 ± 0.5 mm to 9.6 ± 0.5 mm (on the left outlet) and 13.3 ± 0.5 mm (on the right outlet).</p>	<p>2</p>	<p>Eight Ethernet cable outlets</p> <p>NOTE</p> <p>Cat5e and Cat6 Ethernet cables are supported.</p>
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3	<p>Three DC or AC output power cable outlets</p> <p>NOTE The diameter of power cables supported by an outlet is 9.3±0.5 mm.</p>	4	<p>Two AC input power cable outlets</p> <p>NOTE The diameter of power cables supported: 9.5±0.5 mm (on the left outlet) and 14±0.5 mm (on the right outlet).</p>
5	<p>Ground screw</p> <p>NOTE It is used to ground the switch. The ground cable needs to be purchased separately.</p>	6	<p>Atmospheric pressure valve</p> <p>NOTE It ensures that the atmospheric pressure inside and outside the switch are the same.</p>
7	<p>Mounting column for a cable cover</p> <p>NOTE It is used to mount an optional cable cover.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-639](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-639 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	<p>It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s.</p> <ul style="list-style-type: none"> The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm). If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-640](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-640 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-641](#).

Table 4-641 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-251 Indicators on the outside of the S5720I-10X-PWH-SI-AC

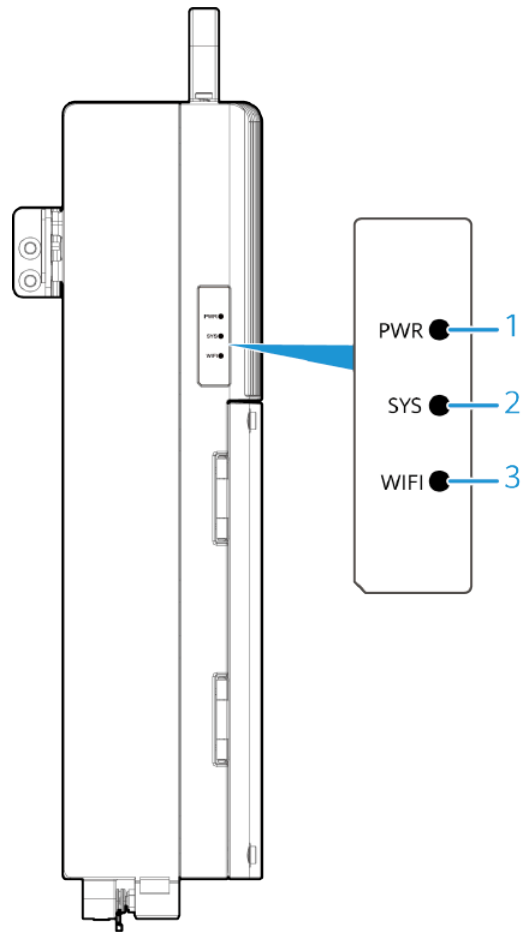


Figure 4-252 Indicators inside the maintenance compartment of the S5720I-10X-PWH-SI-AC

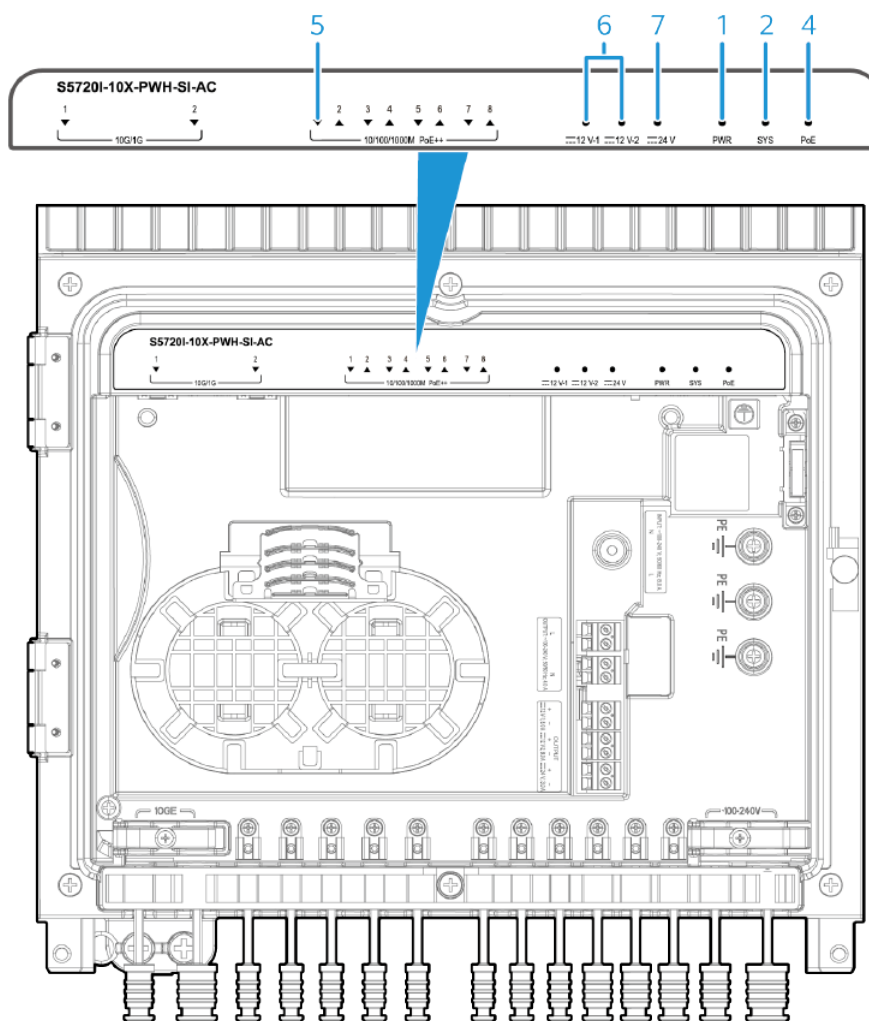


Table 4-642 Description of indicators

No.	Indicator	Name	Color	Status	Description
1	PWR	Built-in power supply indicator	-	Off	The switch is not powered on.
			Green	Steady on	The power module is supplying power normally.
			Yellow or red	Steady on	The built-in power module has failed.
2	SYS	System status indicator	-	Off	The system is not running.

No.	Indicator	Name	Color	Status	Description
			Green	Fast blinking	The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade.
			Green	Slow blinking	The system is operating properly.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
			Red	Blinking	The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
			Yellow	Blinking	The switch has restarted after a successful upgrade using a USB flash drive. You can remove the USB flash drive from the switch.
3	WIFI	Wi-Fi indicator	Red	Fast blinking	The Wi-Fi function is reserved for future use. You can configure the WIFI indicator on a switch to fast blink red, helping field maintenance personnel quickly find the switch.
4	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected. In this mode, the service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode. This indicator is steady green after you successfully log in to the switch for the first time using the MODE button.
			Green	Blinking	If you fail to log in to the switch for the first time using the MODE button, this indicator fast blinks for 10 seconds, and then returns to the default status.
5	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-643 .		

No.	Indicator	Name	Color	Status	Description
6	12V-V1	12 V DC output indicator	-	Off	The 12 V DC power module is not supplying power.
	12V-V2		Green	Steady on	The 12 V DC power module is supplying power.
7	24V	24 V DC output indicator	-	Off	The 24 V DC power module is not supplying power.
			Green	Steady on	The 24 V DC power module is supplying power.

Table 4-643 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.

Power Supply Configuration

The S5720I-10X-PWH-SI-AC has a built-in power module and does not support pluggable power modules. The S5720I-10X-PWH-SI-AC can be connected to an external 110 V or 220 V AC power supply. [Table 4-644](#) lists power supply configurations.

Table 4-644 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External 220 V AC power supply	200 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 6 ● 802.3bt (60 W per port): 3
External 110 V AC power supply	175 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 5 ● 802.3bt (60 W per port): 2

NOTE

The PoE output shares power resources with two 12 V DC outputs and one 24 V DC output. The shared power is 175 W (110 V input) or 200 W (220 V input).

Heat Dissipation

The S5720I-10X-PWH-SI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-645](#) lists technical specifications of the S5720I-10X-PWH-SI-AC.

Table 4-645 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	34.4 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode
Power supply surge protection	AC input (impulse current): 20 kA DC output (surge): ±6 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions: 390 mm x 300 mm x 100 mm (15.4 in. x 11.8 in. x 3.9 in.) Maximum dimensions: 474.75 mm x 303.3 mm x 124.77 mm (18.69 in. x 11.94 in. x 4.91 in.)
Weight (with packaging)	12.8 kg (28.22 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> Without PoE: 33 W 100% PoE loads: 263 W (system power consumption: 63 W, PoE: 200 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	30 W

Item	Description
Operating temperature	-40°C to +55°C (-40°F to +131°F) NOTE When the altitude is 1800-4000 m (5906-13123 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch can start when the temperature is higher than -25°C (-13°F).
Storage temperature	-40°C to +85°C (-40°F to +185°F)
IP rating	IP66
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-4000 m (0-13123 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010832

4.13.3 S5720I-12X-SI-AC

Version Mapping

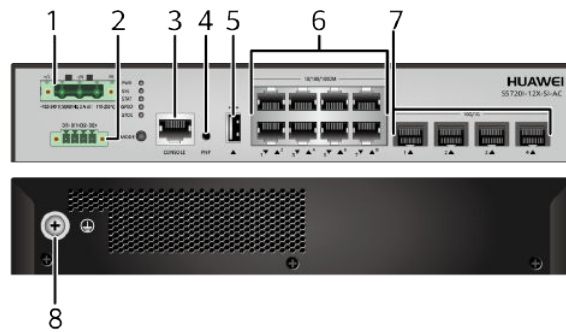
[Table 4-646](#) lists the mapping between the S5720I-12X-SI-AC chassis and software versions.

Table 4-646 Version mapping

Series	Switch Model	Software Version
S5720I-SI	S5720I-12X-SI-AC	V200R012C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-253 S5720I-12X-SI-AC appearance



1	<p>AC input power socket</p> <p>NOTE</p> <p>It must be used with the Phoenix connector, which is included in the installation accessory package.</p>	2	<p>Monitoring port</p> <p>NOTE</p> <p>It must be used with the Phoenix connector, which is included in the installation accessory package.</p> <p>The monitoring port detects the status of external devices, for example, monitoring the opening and closing of the cabinet door.</p> <p>For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the CLI-based Configuration Guide - Device Management Configuration Guide.</p>
3	<p>One console port</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One USB port</p>	6	<p>Eight 10/100/1000BASE-T ports</p>

7	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • Industrial optical module • 3 m SFP+ high-speed cable • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) 	8	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-647](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-647 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	<p>It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s.</p> <ul style="list-style-type: none"> • The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm). • If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-648](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-648 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-649](#).

Table 4-649 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

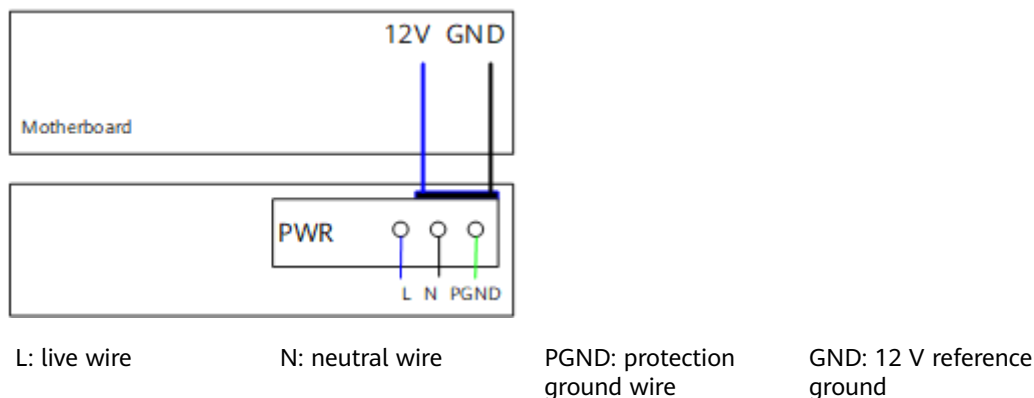
The S5720I-12X-SI-AC has similar indicators to those of the S5720I-12X-PWH-SI-DC except that the S5720I-12X-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720I-12X-SI-AC has a built-in power module and does not support pluggable power modules.

Figure 4-254 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-254 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720I-12X-SI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-650 lists technical specifications of the S5720I-12X-SI-AC.

Table 4-650 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	67.89 years
Mean time to repair (MTTR)	2
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode

Item	Description
Power supply surge protection	±6 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.8 in. x 7.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 186.36 mm (1.72 in. x 9.8 in. x 7.34 in.)
Weight (with packaging)	2.65 kg (5.84 lb)
Stack ports	Eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz 110 V DC to 250 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz 110 V DC to 250 V DC
Maximum power consumption (100% throughput)	17 W
Typical power consumption (30% of traffic load)	15.6 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	<ul style="list-style-type: none"> -40°C to +65°C (-40°F to +149°F) (installed in the sealing cabinet) -40°C to +70°C (-40°F to +158°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) -40°C to +75°C (-40°F to +167°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +85°C (-40°F to +185°F)
Protection rating	IP30
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010794

4.13.4 S5720I-12X-PWH-SI-DC

Version Mapping

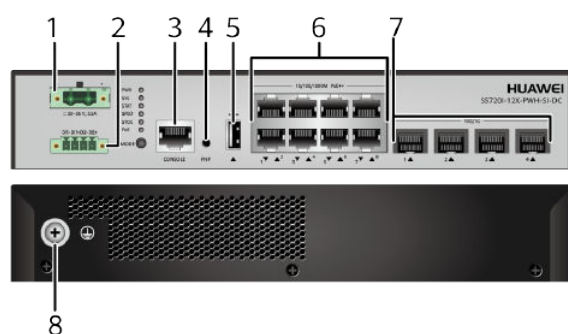
[Table 4-651](#) lists the mapping between the S5720I-12X-PWH-SI-DC chassis and software versions.

Table 4-651 Version mapping

Series	Switch Model	Software Version
S5720I-SI	S5720I-12X-PWH-SI-DC	V200R012C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-255 S5720I-12X-PWH-SI-DC appearance



1	<p>DC input power socket</p> <p>NOTE</p> <p>It must be used with the Phoenix connector, which is included in the installation accessory package.</p>	2	<p>Monitoring port</p> <p>NOTE</p> <p>It must be used with the Phoenix connector, which is included in the installation accessory package.</p> <p>The monitoring port detects the status of external devices, for example, monitoring the opening and closing of the cabinet door.</p> <p>For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the CLI-based Configuration Guide - Device Management Configuration Guide.</p>
3	<p>One console port</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

5	One USB port	6	Eight PoE++ 10/100/1000BASE-T ports
7	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • Industrial optical module • 3 m SFP+ high-speed cable • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) 	8	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-652](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-652 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	<p>It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s.</p> <ul style="list-style-type: none"> • The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm). • If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-653](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-653 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-654](#).

Table 4-654 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

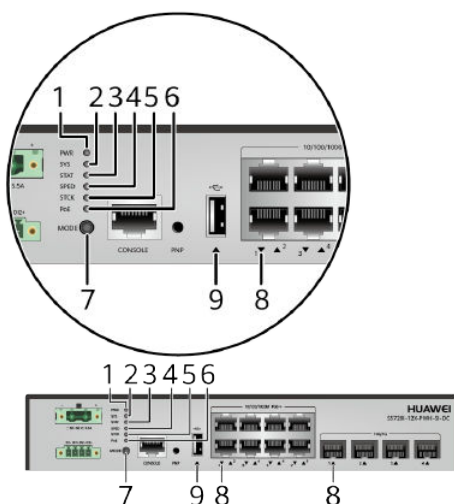
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-256 Indicators on the S5720I-12X-PWH-SI-DC



NOTE

The S5720I-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720I-SI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-655 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.

No.	Indicator	Name	Color	Status	Description
			Yellow or red	Steady on	The built-in power module has failed.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
3	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-656 .		

No.	Indicator	Name	Color	Status	Description
9	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-656 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
		Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.

Display Mode	Color	Status	Description
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 8 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 8 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720I-12X-PWH-SI-DC has a built-in power module and does not support pluggable power modules. It can directly connect to the external power module with 50 V DC to 56 V DC power or the PAC-260WA-E or PAC240S56-CN power module. [Table 4-657](#) lists its power supply configurations.

Table 4-657 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External power module with 50 V to 56 V DC power supply	220 W by default; 240 W at most	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 8 ● 802.3bt (60 W per port): 4
260 W power module (PAC-260WA-E)	220 W by default; 240 W at most	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 8 ● 802.3bt (60 W per port): 4
240 W power module (PAC240S56-CN)	220 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 7 ● 802.3bt (60 W per port): 3

NOTE

The PoE power supply of S5720I-12X-PWH-SI-DC is in direct mode. The input voltage must meet the PoE standard. If the input voltage does not meet the PoE standard, the voltage on the PD side may be too low.

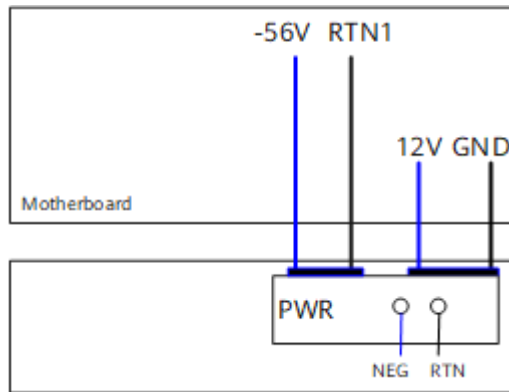
If the external DC power supply is in grounding design, the non-isolated AP and camera cannot be used. In this case, isolate the AP and camera.

If a non-Huawei external DC power supply is used, ensure that it meets the following requirement:

Maximum power consumption of the device (20 W) + Number of PoE ports in use x PoE consumption of each port

[Figure 4-257](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis and -56 V output to the PoE power supply.

Figure 4-257 Power supply connections of a single DC power module



NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

RTN1: -56 V reference ground

Heat Dissipation

The S5720I-12X-PWH-SI-DC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-658](#) lists technical specifications of the S5720I-12X-PWH-SI-DC.

Table 4-658 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	64.23 years
Mean time to repair (MTTR)	2
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode
Power supply surge protection	±2 kV in differential mode, ±4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.8 in. x 7.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 186.36 mm (1.72 in. x 9.8 in. x 7.34 in.)
Weight (with packaging)	2.5 kg (5.51 lb)
Stack ports	Eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	50 V DC to 56 V DC
Maximum voltage range	46 V DC to 57 V DC
Maximum power consumption (100% throughput)	<p>Using PAC-260WA-E power module:</p> <ul style="list-style-type: none"> Without PoE: 28.8 W 100% PoE loads: 288.4 W (system power consumption: 48.4 W, PoE: 240 W) <p>Using PAC240S56-CN power module:</p> <ul style="list-style-type: none"> Without PoE: 26.5 W 100% PoE loads: 270.1 W (system power consumption: 50.1 W, PoE: 220 W)
<p>Typical power consumption (30% of traffic load)</p> <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	<p>Using PAC-260WA-E power module: 27.6 W</p> <p>Using PAC240S56-CN power module: 25 W</p>

Item	Description
Operating temperature	<ul style="list-style-type: none"> -40°C to +65°C (-40°F to +149°F) (installed in the sealing cabinet) -40°C to +70°C (-40°F to +158°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) -40°C to +75°C (-40°F to +167°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +85°C (-40°F to +185°F)
Protection rating	IP30
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010795

4.13.5 S5720I-28X-SI-AC

Version Mapping

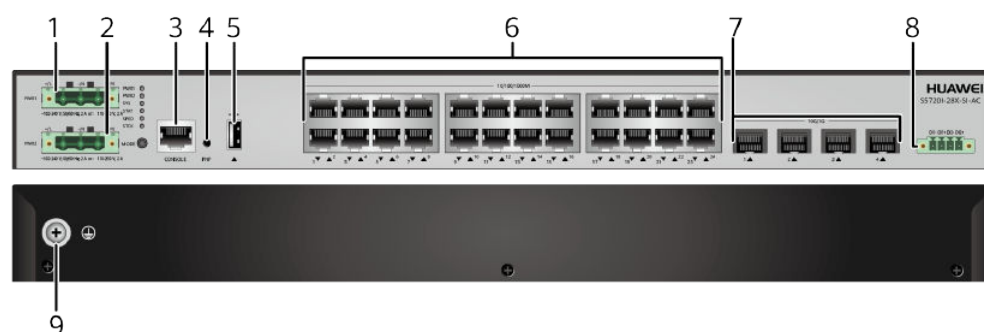
[Table 4-659](#) lists the mapping between the S5720I-28X-SI-AC chassis and software versions.

Table 4-659 Version mapping

Series	Model	Software Version
S5720I-SI	S5720I-28X-SI-AC	V200R012C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-258 S5720I-28X-SI-AC appearance



1	AC power input port 1 NOTE It must be used with the Phoenix connector, which is included in the installation accessory package.	2	AC power input port 2 NOTE It must be used with the Phoenix connector, which is included in the installation accessory package.
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One USB port	6	Twenty-four 10/100/1000BASE-T ports

7	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • Industrial optical module • 3 m SFP+ high-speed cable • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) 	8	<p>Monitoring port</p> <p>NOTE</p> <p>It must be used with the Phoenix connector, which is included in the installation accessory package.</p> <p>The monitoring port detects the status of external devices, for example, monitoring the opening and closing of the cabinet door.</p> <p>For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the CLI-based Configuration Guide - Device Management Configuration Guide.</p>
9	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-660](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-660 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	<p>It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s.</p> <ul style="list-style-type: none"> • The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm). • If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-661](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-661 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-662](#).

Table 4-662 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

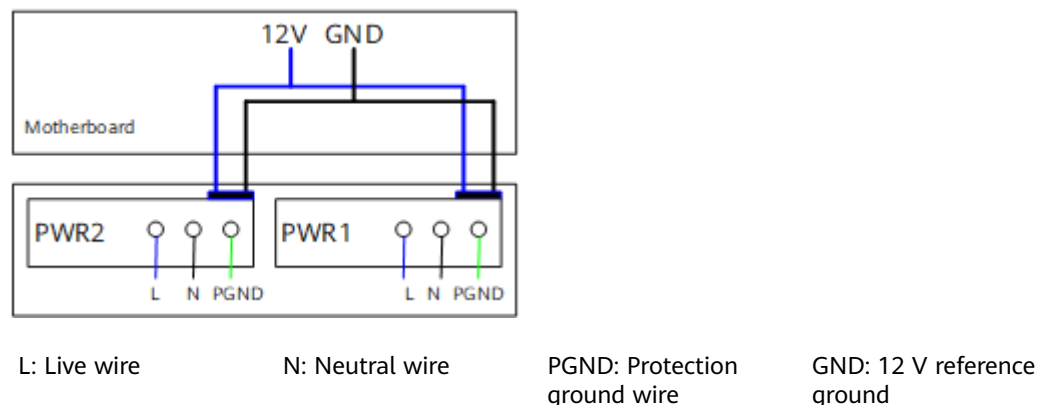
The S5720I-28X-SI-AC has similar indicators to those of the S5720I-28X-PWH-SI-AC except that the S5720I-28X-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720I-28X-SI-AC has two built-in power modules for 1+1 power redundancy and does not support pluggable power modules.

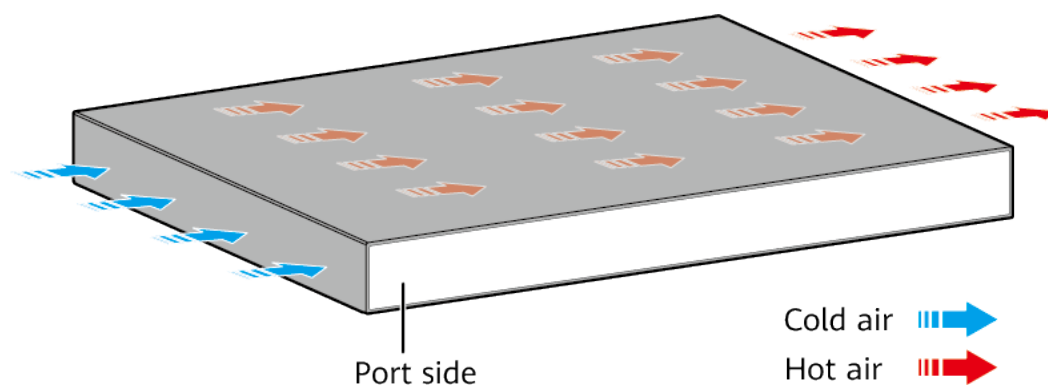
Figure 4-259 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-259 Power supply connections of dual AC power modules



Heat Dissipation

The S5720I-28X-SI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-663 lists technical specifications of the S5720I-28X-SI-AC.

Table 4-663 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	72.32 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode
Power supply surge protection	±6 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 226.26 mm (1.72 in. x 17.4 in. x 8.91 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz 110 V DC to 250 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz 110 V DC to 250 V DC
Maximum power consumption (100% throughput, full speed of fans)	29.3 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	24.8 W
Operating temperature	-40°C to +65°C (-40°F to +149°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +85°C (-40°F to +185°F)
Protection rating	IP20
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010796

4.13.6 S5720I-28X-PWH-SI-AC

Version Mapping

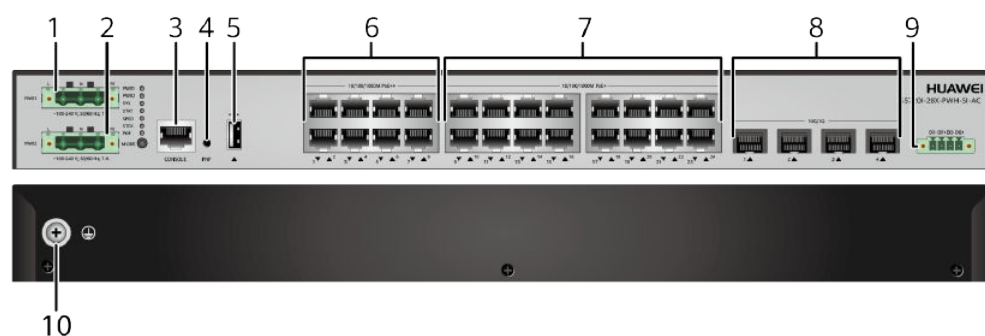
[Table 4-664](#) lists the mapping between the S5720I-28X-PWH-SI-AC chassis and software versions.

Table 4-664 Version mapping

Series	Model	Software Version
S5720I-SI	S5720I-28X-PWH-SI-AC	V200R012C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-260 S5720I-28X-PWH-SI-AC appearance



1	AC power input port 1 NOTE It must be used with the Phoenix connector, which is included in the installation accessory package.	2	AC power input port 2 NOTE It must be used with the Phoenix connector, which is included in the installation accessory package.
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One USB port	6	Eight PoE++ 10/100/1000BASE-T ports

7	Sixteen PoE+ 10/100/1000BASE-T ports	8	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • Industrial optical module • 3 m SFP+ high-speed cable • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
9	Monitoring port NOTE It must be used with the Phoenix connector, which is included in the installation accessory package. The monitoring port detects the status of external devices, for example, monitoring the opening and closing of the cabinet door. For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the CLI-based Configuration Guide - Device Management Configuration Guide.	10	Ground screw NOTE It is used with a ground cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-665](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-665 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s. <ul style="list-style-type: none"> • The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm). • If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-666](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-666 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-667](#).

Table 4-667 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

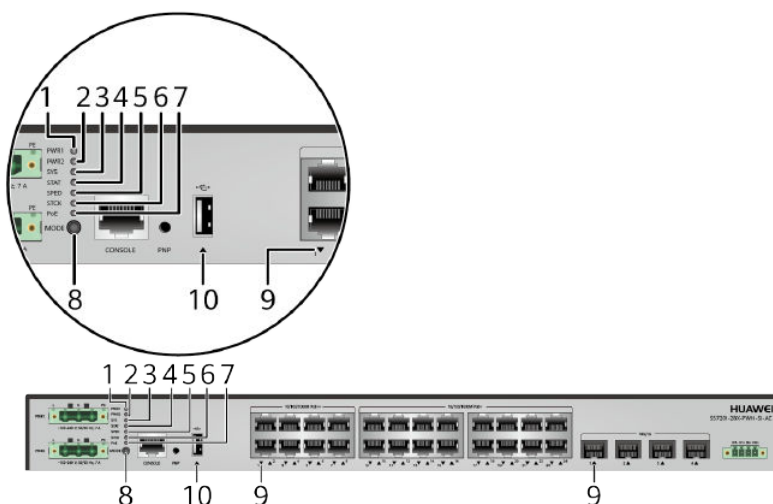
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-261 Indicators on the S5720I-28X-PWH-SI-AC



NOTE

The S5720I-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720I-SI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-668 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-669 .		
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-669 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).

Display Mode	Color	Status	Description
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720I-28X-PWH-SI-AC has two built-in power modules for 1+1 power redundancy and does not support pluggable power modules.

The following two PoE power supply modes are available:

- High-power mode (default): When double power modules are used, they provide 369.6 W PoE power for the eight PoE++ ports and 369.6 W PoE power for the sixteen PoE+ ports (total of 739.2 W PoE power). When either of the two power modules fails, the eight PoE++ ports can supply power for PDs normally; however, the PDs connected to the sixteen PoE+ ports are powered off, and the PoE function is unavailable. When a single power module is used, only the eight PoE++ ports can supply PoE power for PDs.
- PoE backup mode: You can run the **poe-power backup-mode** command to manually switch the PoE power supply mode to the backup mode. In backup mode, the entire system provides 369.6 W PoE power regardless of whether a single power module or double power modules are used. That is, all 24 ports

share the 369.6 W power. When double power modules are used, they work in 1+1 redundancy mode.

 **NOTE**

When the power supply mode is manually switched to the PoE backup mode, the PDs connected to all ports are powered off and then powered on again.

When the switch works in PoE backup mode, the PDs connected to all ports are powered off and then powered on again if the switch is restarted.

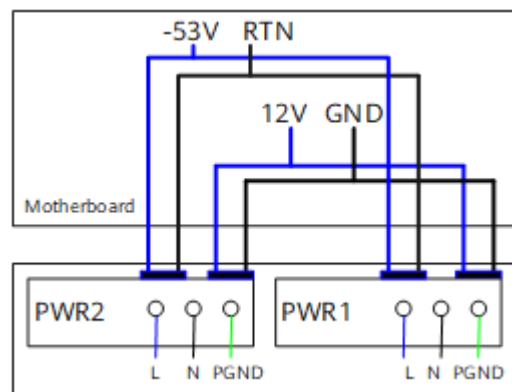
Table 4-670 lists its power supply configurations.

Table 4-670 Power supply configurations

Power Supply Mode	Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
High-power mode	Single power module	369.6 W	Eight PoE++ ports: <ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 8 ● 802.3bt (60 W per port): 6 Sixteen PoE+ ports: N/A
	Double power modules	739.2 W	Eight PoE++ ports: <ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 8 ● 802.3bt (60 W per port): 6 Sixteen PoE+ ports: <ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 16 ● 802.3at (30 W per port): 12
PoE backup mode	Single power module	369.6 W	Twenty-four ports: <ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 12 ● 802.3bt (60 W per port): 6 (Only the eight PoE++ ports support this configuration.)
	Double power modules		

Figure 4-262 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

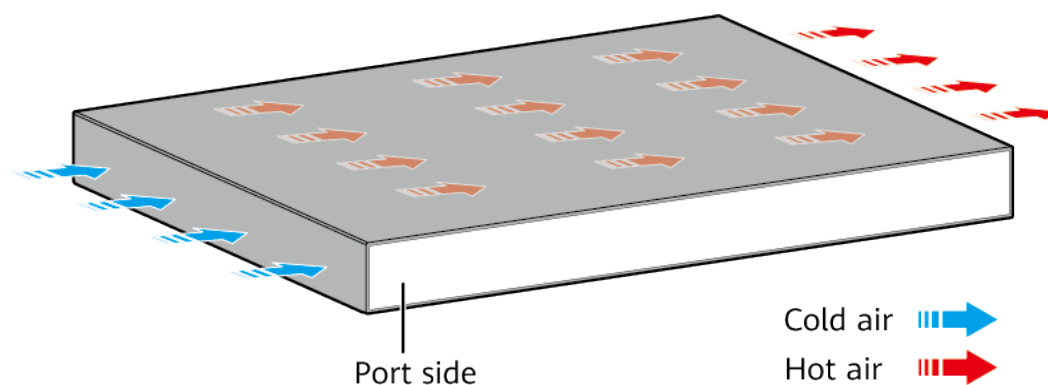
Figure 4-262 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720I-28X-PWH-SI-AC has four built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-671 lists technical specifications of the S5720I-28X-PWH-SI-AC.

Table 4-671 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45.94 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode
Power supply surge protection	±6 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 316.46 mm (1.72 in. x 17.4 in. x 12.46 in.)
Weight (with packaging)	6.7 kg (14.77 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Without PoE: 57.8 W• 100% PoE loads: 905 W (system power consumption: 165.8 W, PoE: 739.2 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	34.6 W
Operating temperature	-40°C to +65°C (-40°F to +149°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +85°C (-40°F to +185°F)
Protection rating	IP20
Noise under normal temperature (27°C, sound power)	< 47 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010797

4.14 S5730-SI

4.14.1 S5730-48C-SI-AC

Version Mapping

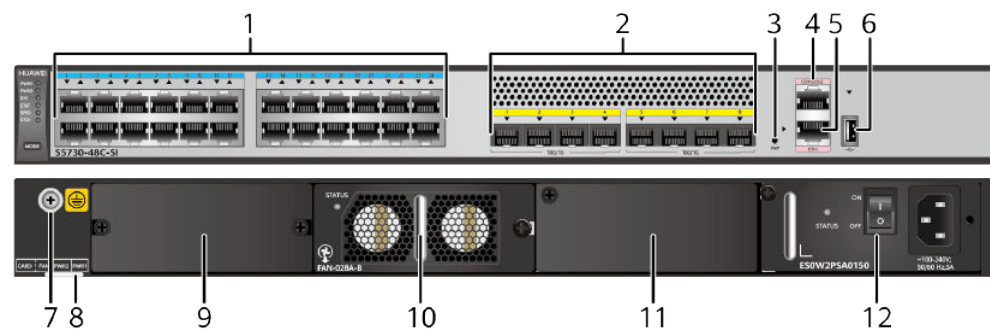
Table 4-672 lists the mapping between the S5730-48C-SI-AC chassis and software versions.

Table 4-672 Version mapping

Series	Model	Software Version
S5730-SI	S5730-48C-SI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 4-263 S5730-48C-SI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Eight 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	<p>One ETH management port</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	<p>Fan slot</p> <p>NOTE</p> <p>Applicable fan module: FAN-028A-B</p>
11	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-673](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-673 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Attribute	Description
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-674](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-674 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-675](#).

Table 4-675 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-676](#) describes the attributes of an ETH management port.

Table 4-676 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

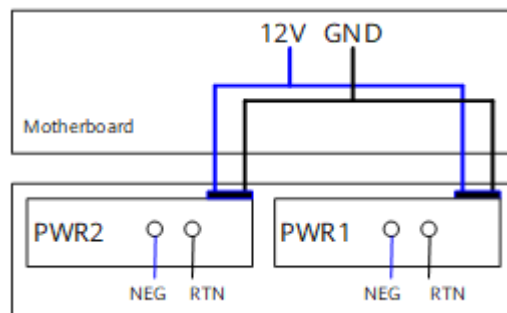
The S5730-48C-SI-AC has similar indicators to those of the S5730-68C-PWR-SI-AC except that the S5730-48C-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-48C-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-264 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-264 Power supply connections of dual DC power modules



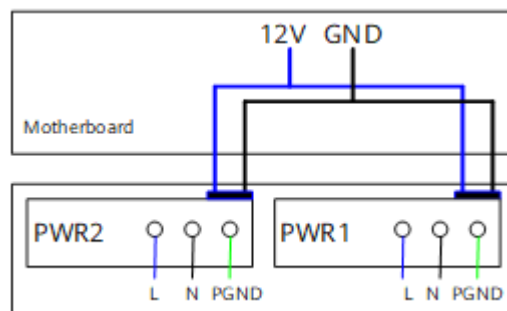
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-265 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-265 Power supply connections of dual AC power modules



L: Live wire

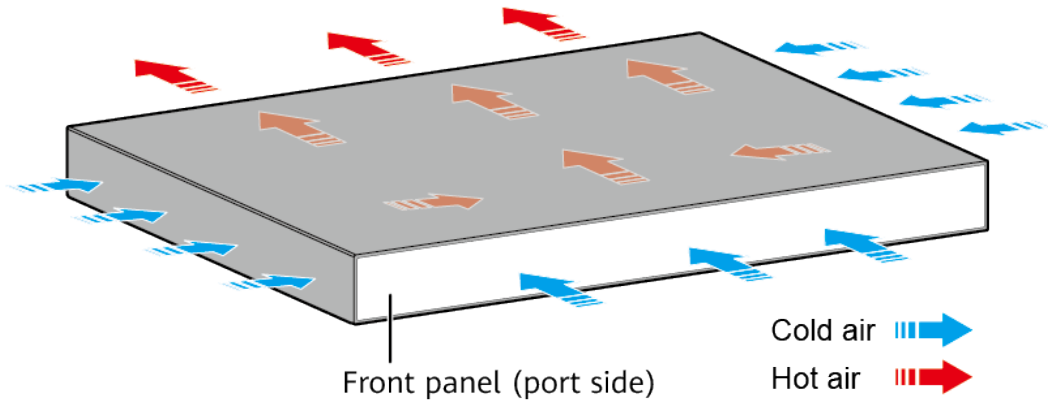
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5730-48C-SI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-677](#) lists technical specifications of the S5730-48C-SI-AC.

Table 4-677 Technical specifications

Item	Parameter
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	47.83 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.)

Item	Parameter
Weight (with packaging)	8.2 kg (18.08 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	62.4 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	39.02 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.

Item	Parameter
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.4 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010710

4.14.2 S5730-48C-PWR-SI-AC

Version Mapping

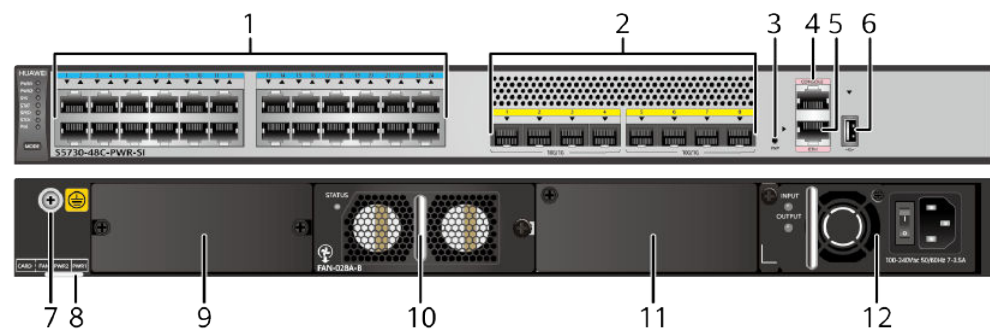
[Table 4-678](#) lists the mapping between the S5730-48C-PWR-SI-AC chassis and software versions.

Table 4-678 Version mapping

Series	Model	Software Version
S5730-SI	S5730-48C-PWR-SI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 4-266 S5730-48C-PWR-SI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Eight 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	<p>One ETH management port</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	<p>Fan slot</p> <p>NOTE</p> <p>Applicable fan module: FAN-028A-B</p>
11	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	12	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-679](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-679 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Attribute	Description
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-680](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-680 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-681](#).

Table 4-681 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-682](#) describes the attributes of an ETH management port.

Table 4-682 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-48C-PWR-SI-AC has the same types of indicators as the S5730-68C-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-48C-PWR-SI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power

module and a 650 W DC power module can be used together in the switch. [Table 4-683](#) lists its power supply configurations.

Table 4-683 Power supply configurations

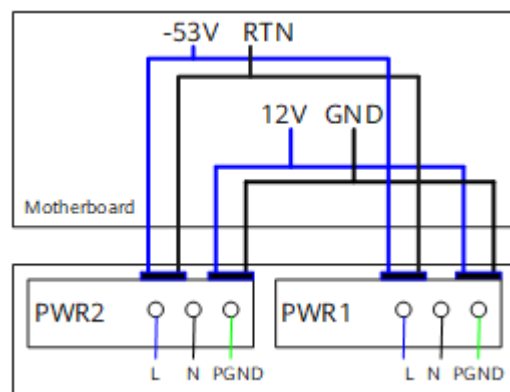
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-267](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 4-267 Power supply by dual AC PoE power modules

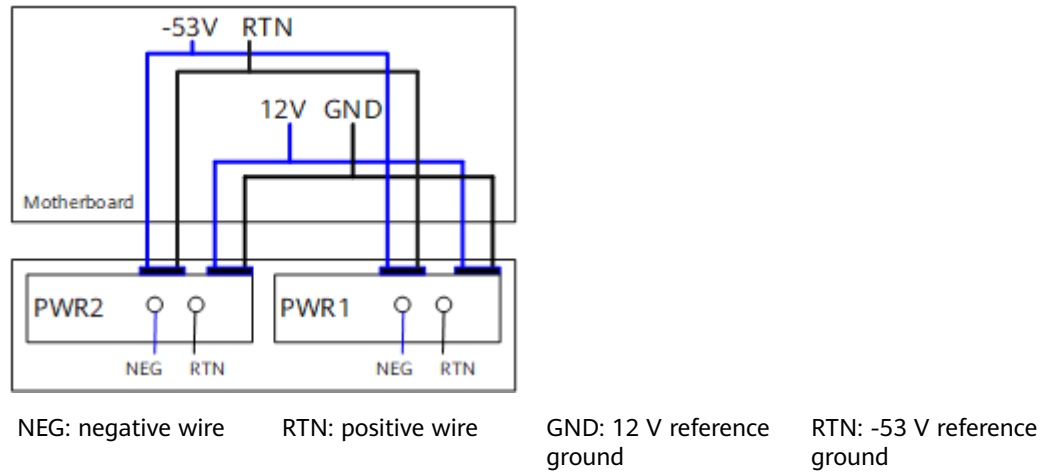


L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

[Figure 4-268](#) shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V

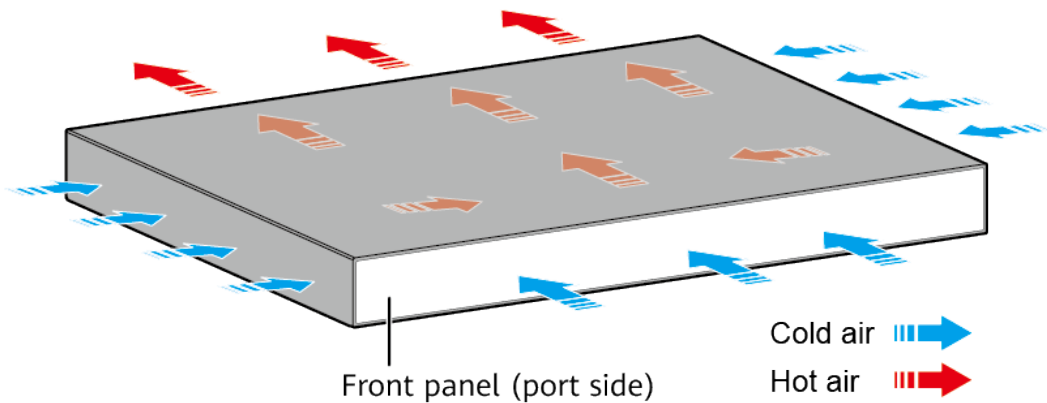
and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 4-268 Power supply connections of dual DC PoE power modules



Heat Dissipation

The S5730-48C-PWR-SI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-684](#) lists technical specifications of the S5730-48C-PWR-SI-AC.

Table 4-684 Technical specifications

Item	Description
Memory (RAM)	1 GB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.)
Weight (with packaging)	8.3 kg (18.3 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 83.2 W (without card) 100% PoE loads: 967 W (system power consumption: 227.8 W, PoE: 739.2 W, without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	44.2 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.4 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010712

4.14.3 S5730-68C-SI-AC

Version Mapping

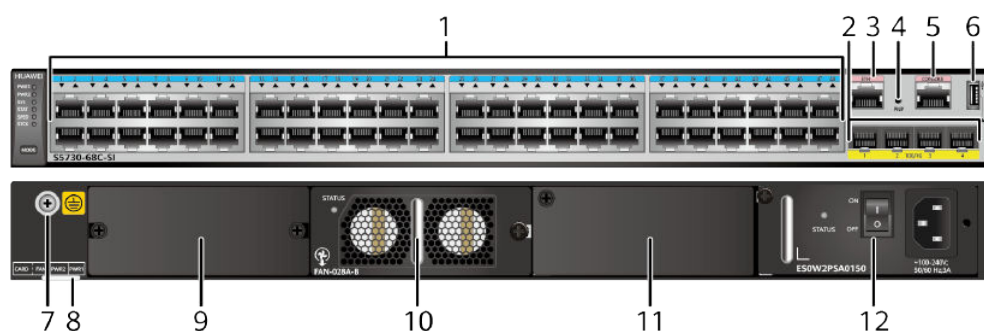
Table 4-685 lists the mapping between the S5730-68C-SI-AC chassis and software versions.

Table 4-685 Version mapping

Series	Model	Software Version
S5730-SI	S5730-68C-SI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 4-269 S5730-68C-SI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>

9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	1 0	Fan slot NOTE Applicable fan module: FAN-028A-B
1 1	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	1 2	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-686](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-686 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-687](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-687 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-688](#).

Table 4-688 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-689](#) describes the attributes of an ETH management port.

Table 4-689 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-68C-SI-AC has similar indicators to those of the S5730-68C-PWR-SI-AC except that the S5730-68C-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-68C-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-270](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-270 Power supply connections of dual DC power modules

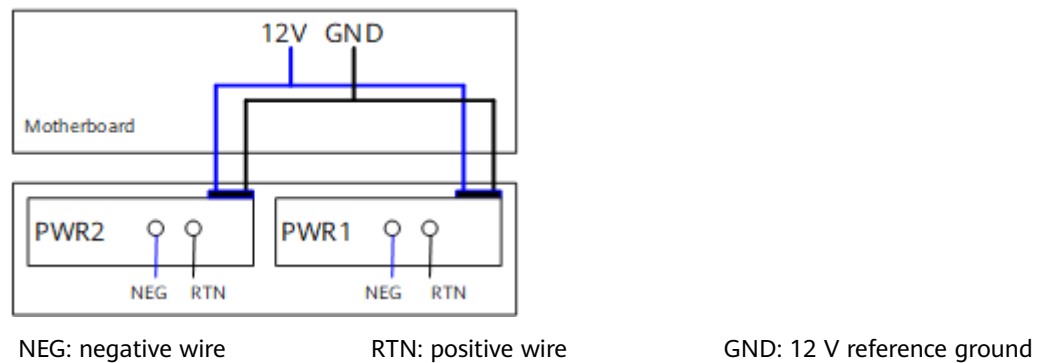
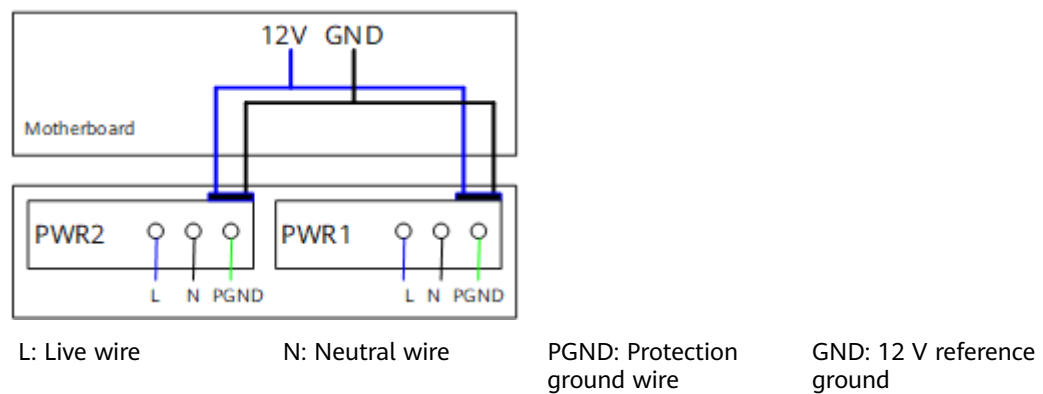


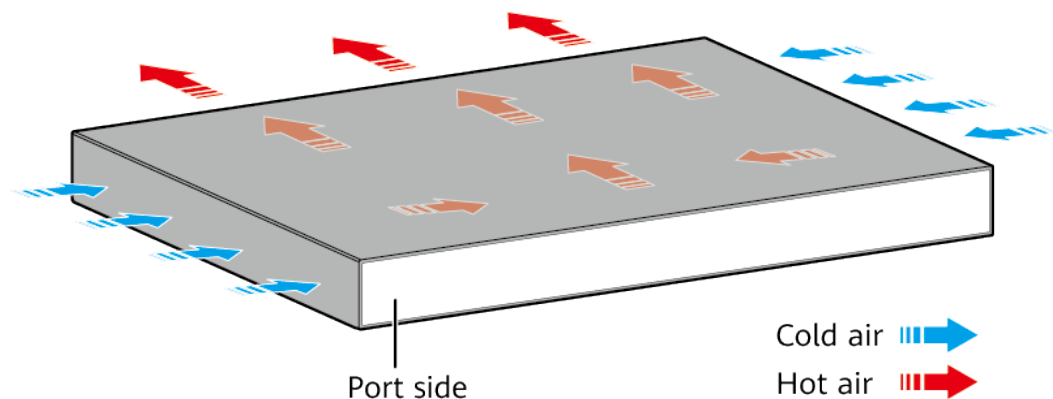
Figure 4-271 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-271 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-68C-SI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-690 lists technical specifications of the S5730-68C-SI-AC.

Table 4-690 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.53 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.)
Weight (with packaging)	8.5 kg (18.74 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	65.4 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.3 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010713

4.14.4 S5730-68C-PWR-SI-AC

Version Mapping

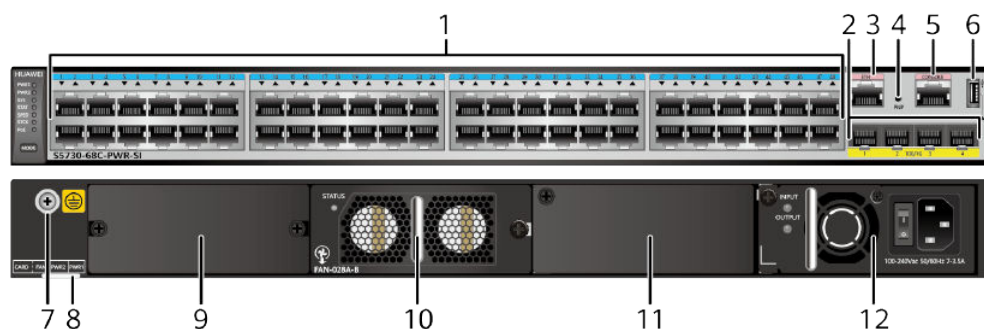
Table 4-691 lists the mapping between the S5730-68C-PWR-SI-AC chassis and software versions.

Table 4-691 Version mapping

Series	Model	Software Version
S5730-SI	S5730-68C-PWR-SI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 4-272 S5730-68C-PWR-SI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables• 3 m and 10 m AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.

9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	1 0	Fan slot NOTE Applicable fan module: FAN-028A-B
1 1	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	1 2	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-692](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-692 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-693](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-693 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-694](#).

Table 4-694 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-695](#) describes the attributes of an ETH management port.

Table 4-695 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

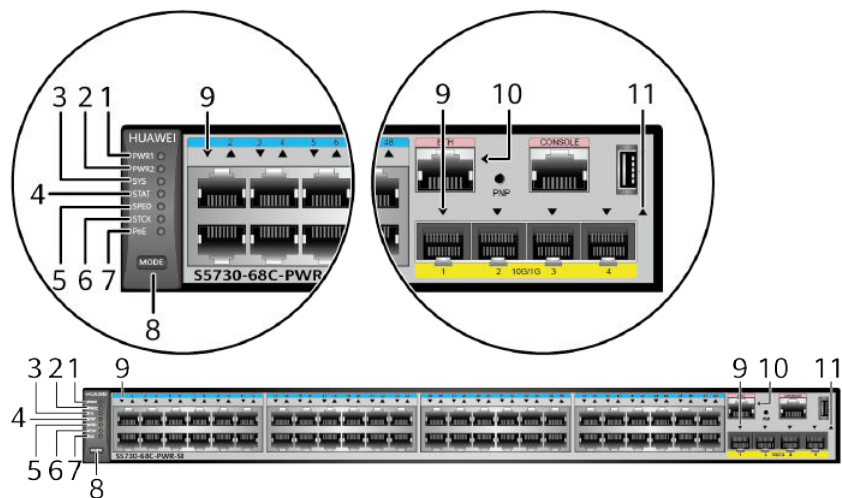
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-273 Indicators on the S5730-68C-PWR-SI-AC



NOTE

The S5730-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 4-696 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.

No.	Indicator	Name	Color	Status	Description
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-697 .		
10	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-697 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.

Display Mode	Color	Status	Description
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5730-68C-PWR-SI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 4-698](#) lists its power supply configurations.

Table 4-698 Power supply configurations

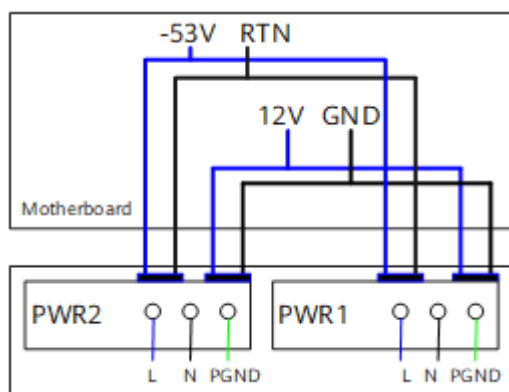
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-274 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

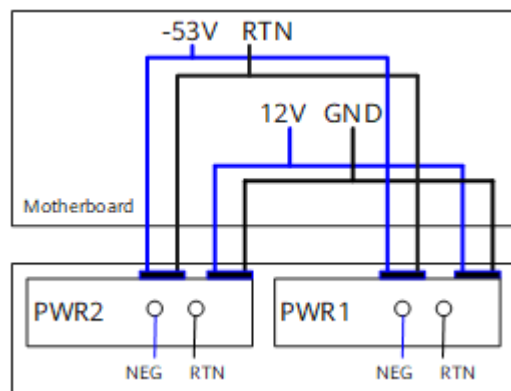
Figure 4-274 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-275 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

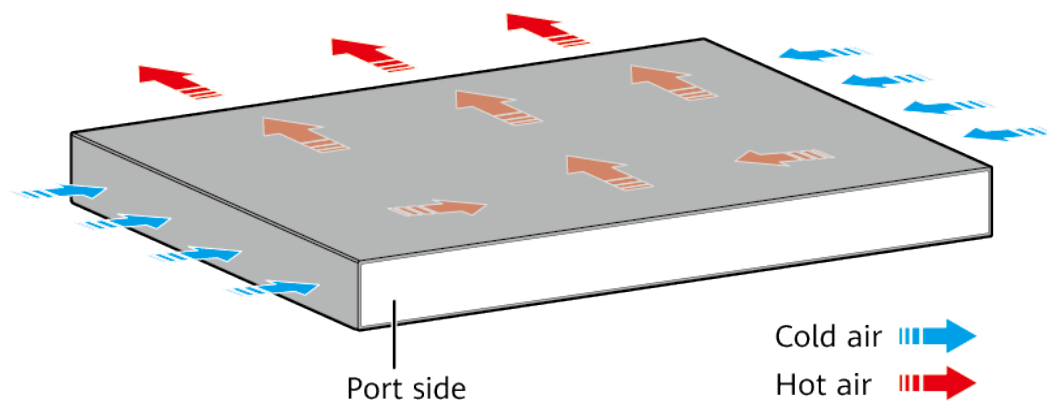
Figure 4-275 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5730-68C-PWR-SI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-699 lists technical specifications of the S5730-68C-PWR-SI-AC.

Table 4-699 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	43.28 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none">Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.)
Weight (with packaging)	8.8 kg (19.4 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 68.3 W (without card)100% PoE loads: 925 W (system power consumption: 185.8 W, PoE: 739.2 W, without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	50.1 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010714

4.14.5 S5730-68C-PWR-SI

Version Mapping

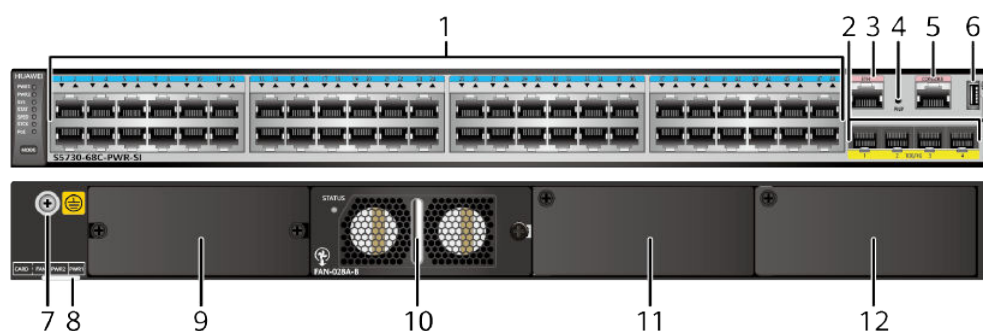
Table 4-700 lists the mapping between the S5730-68C-PWR-SI chassis and software versions.

Table 4-700 Version mapping

Series	Model	Software Version
S5730-SI	S5730-68C-PWR-SI	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 4-276 S5730-68C-PWR-SI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>

9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	1 0	Fan slot NOTE Applicable fan module: FAN-028A-B
1 1	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	1 2	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-701](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-701 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-702](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-702 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-703](#).

Table 4-703 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-704](#) describes the attributes of an ETH management port.

Table 4-704 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-68C-PWR-SI has the same types of indicators as the S5730-68C-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-68C-PWR-SI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch. [Table 4-705](#) lists its power supply configurations.

Table 4-705 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 29 802.3at (30 W per port): 14
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25

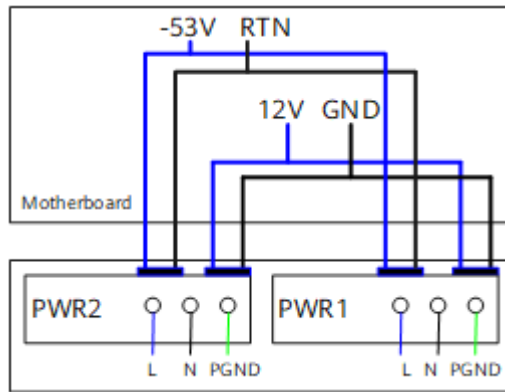
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 29
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 29

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-277 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

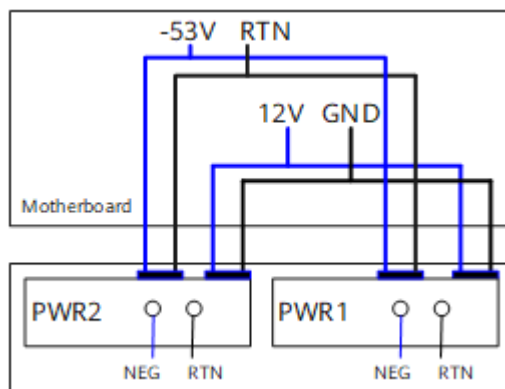
Figure 4-277 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-278 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

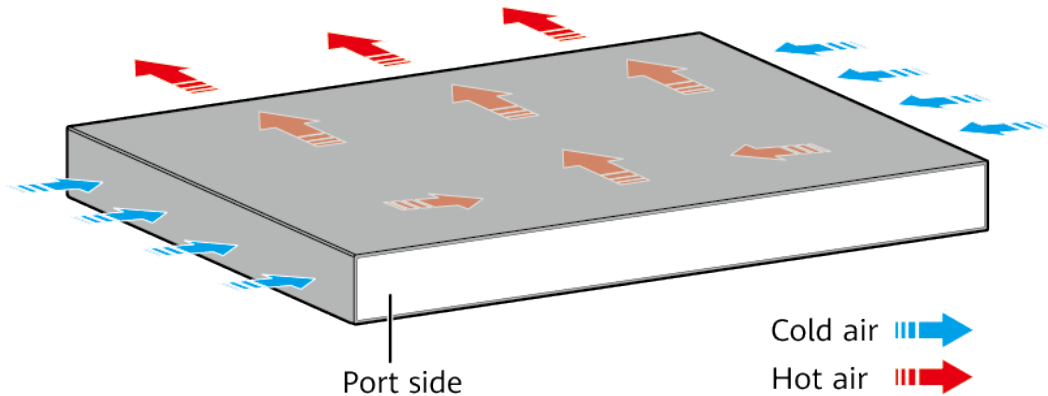
Figure 4-278 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5730-68C-PWR-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-706 lists technical specifications of the S5730-68C-PWR-SI.

Table 4-706 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	43.28 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	8 kg (17.64 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Using 650 W DC power modules or 500 W AC power modules <ul style="list-style-type: none"> - Not providing the PoE function: 68.3 W (without card) - 100% PoE loads: 925 W (system power consumption: 185.8 W, PoE: 739.2 W, without card) • Using 1150 W AC power modules or 1000 W AC power modules <ul style="list-style-type: none"> - Not providing the PoE function: 68.3 W (without card) - 100% PoE loads: 1733 W (system power consumption: 293 W, PoE: 1440 W, without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	50.1 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 64.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010779

4.15 S5700-EI

4.15.1 S5700-28C-EI

Version Mapping

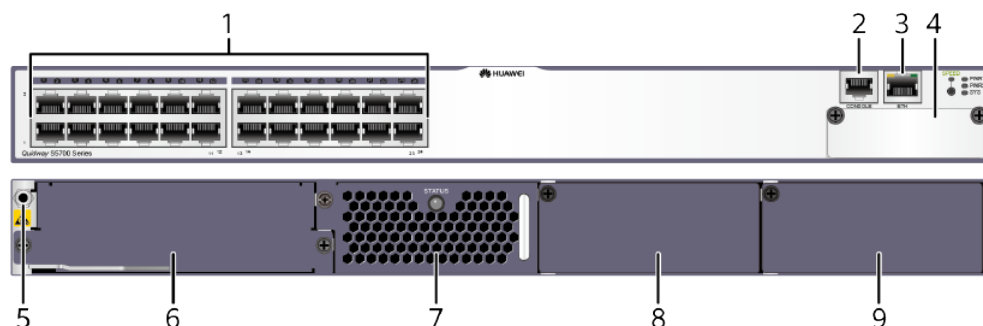
[Table 4-707](#) lists the mapping between the S5700-28C-EI and software versions.

Table 4-707 Version mapping

Series	Model	Software Version
S5700-EI	S5700-28C-EI	V100R005C01 to V200R005C03 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 4-279 S5700-28C-EI appearance



1	Twenty-four 10/100/1000BASE-T ports	2	One console port
3	One ETH management port	4	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 8.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card) 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
5	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	6	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.30 ES5D00ETPC00 (Stack Rear Card) 8.31 ES5D00ETPB00 (Extended Rear Card)
7	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-708](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-708 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-709](#).

Table 4-709 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-710](#) describes the attributes of an ETH management port.

Table 4-710 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

Indicator Description

Figure 4-280 Indicators on the S5700-28C-EI

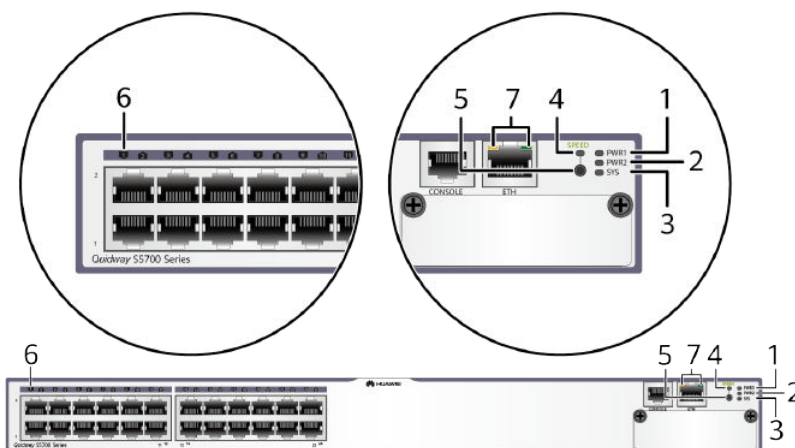


Table 4-711 Indicator Description

No.	Indicator/ Button	Color	Description
1	PWR1: power module indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.

No.	Indicator/ Button	Color	Description
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none">• A power module is available in this slot but its power switch is in the OFF position.• A power module is available in this slot but it is not connected to a power source.• The power module in this slot has failed.
2	PWR2: power module indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none">• A power module is available in this slot but its power switch is in the OFF position.• A power module is available in this slot but it is not connected to a power source.• The power module in this slot has failed.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none">• Steady on: The system is not running normally or is starting.• Slow blinking: The system is running normally.
		Yellow	Steady on: The system is performing self-check during startup.

No.	Indicator/ Button	Color	Description
		Red	Steady on: The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	MODE: mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	Mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port. When you press this button a second time, the mode indicator turns red and the service port indicators show the stack status. When you press this button a third time, the mode indicator turns off. <p>If you do not press the button within 45 seconds, the mode indicator restores to status mode.</p>
6	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-712 .	
7	ETH indicator	-	Off: No link is established on the port.
		Green	Steady on: The port is connected.
		Yellow	Blinking: The port is sending or receiving data.

Table 4-712 Description of service port indicators in different modes (one indicator for each port)

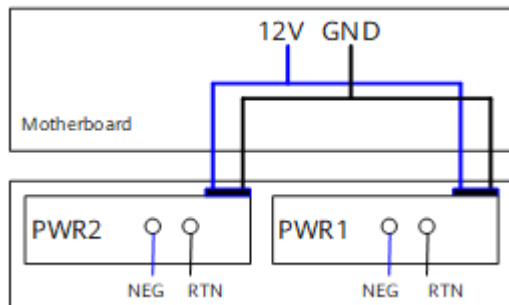
Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-28C-EI can use a single power module or double power modules for 1+1 power redundancy. In versions prior to V200R005C00, the AC and DC power modules cannot be configured on the same device, while in V200R005C00 and later versions, they can be configured on the same device.

Figure 4-281 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-281 Power supply connections of dual DC power modules



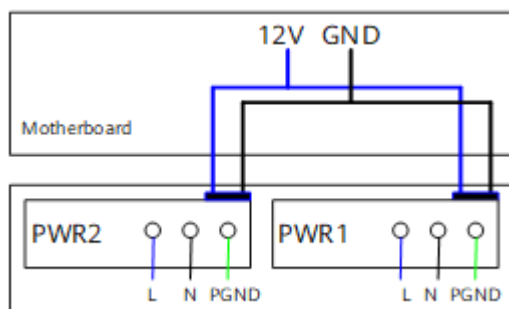
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-282 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-282 Power supply connections of dual AC power modules



L: Live wire

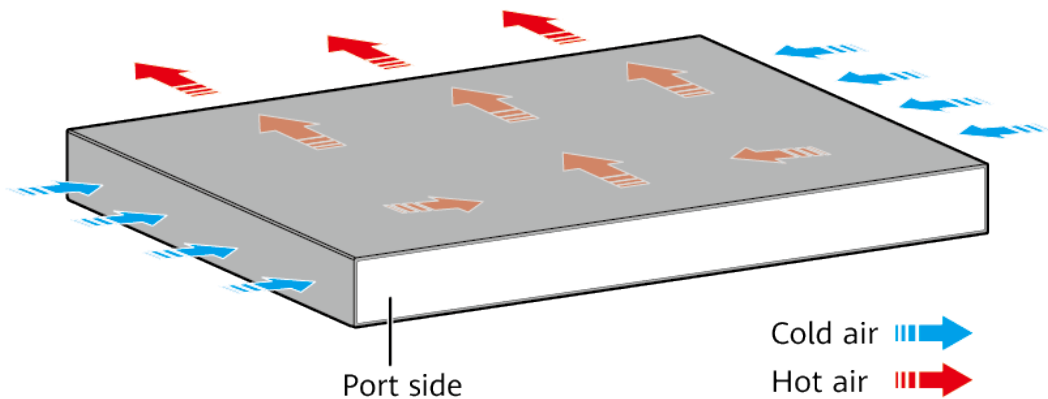
N: Neutral wire

PGND: Protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5700-28C-EI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-713 lists technical specifications of the S5700-28C-EI.

Table 4-713 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	53.11 years when a 2-port 10GE interface card is configured, 68.33 years when a 4-port GE front card is configured, 25.52 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode Using DC power modules: ±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	60 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02352338

4.15.2 S5700-28C-EI-24S

Version Mapping

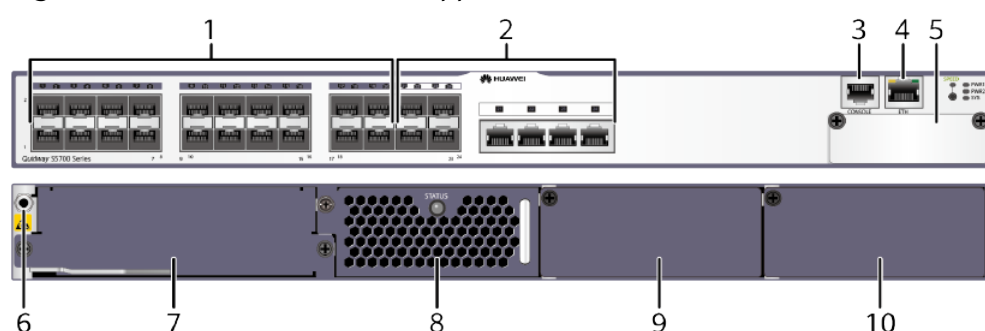
[Table 4-714](#) lists the mapping between the S5700-28C-EI-24S and software versions.

Table 4-714 Version mapping

Series	Model	Software Version
S5700-EI	S5700-28C-EI-24S	V100R005C01 to V200R005C03 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 4-283 S5700-28C-EI-24S appearance



1	<p>Twenty 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module 	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	<p>Front card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 8.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card) • 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card) 	6	<p>ESD jack</p> <p>NOTE</p> <p>Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.</p>

7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.30 ES5D00ETPC00 (Stack Rear Card) 8.31 ES5D00ETPB00 (Extended Rear Card) 	8	Fan slot NOTE Applicable fan module: CX7E1FANA fan module
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-715](#) describes the attributes of a 100/1000BASE-X port.

Table 4-715 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-716](#).

Table 4-716 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-717](#) describes the attributes of an ETH management port.

Table 4-717 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

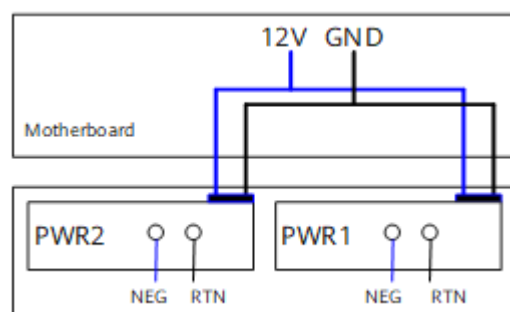
Indicator Description

The S5700-28C-EI-24S has the same types of indicators as the S5700-28C-EI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28C-EI-24S can use a single power module or double power modules for 1+1 power redundancy. In versions prior to V200R005C00, the AC and DC power modules cannot be configured on the same device, while in V200R005C00 and later versions, they can be configured on the same device.

[Figure 4-284](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-284 Power supply connections of dual DC power modules

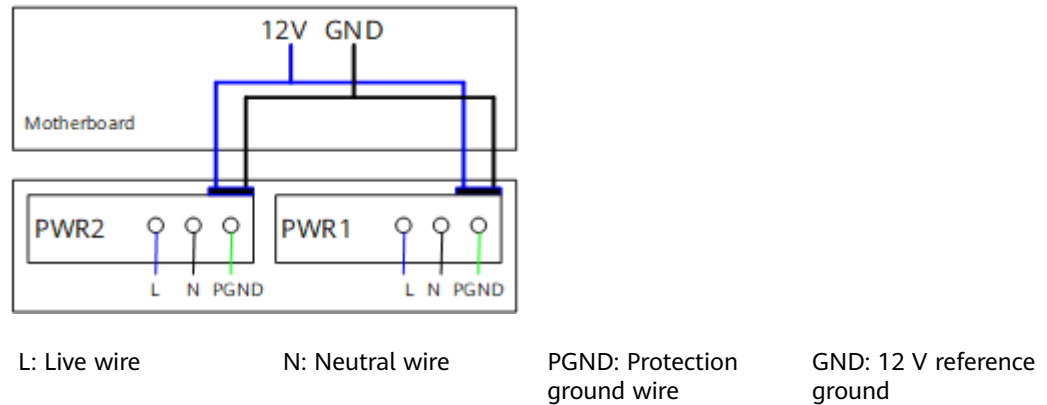
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

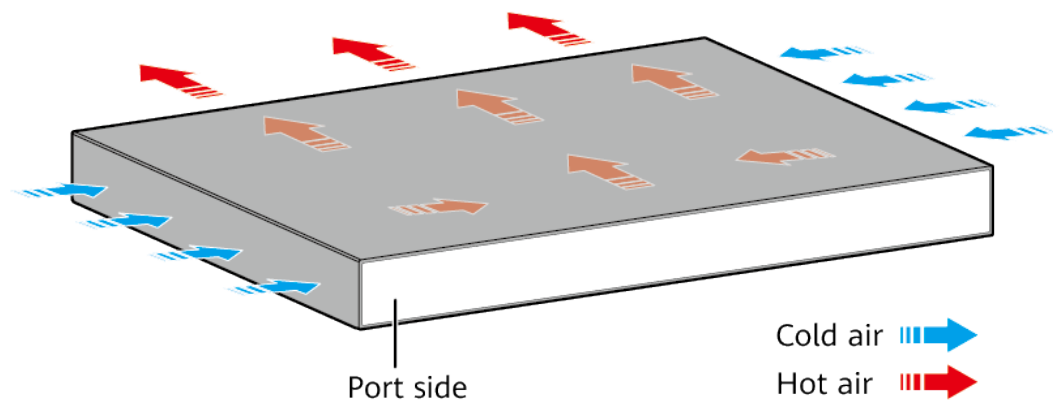
[Figure 4-285](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-285 Power supply connections of dual AC power modules



Heat Dissipation

The S5700-28C-EI-24S uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-718 lists technical specifications of the S5700-28C-EI-24S.

Table 4-718 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB

Item	Description
Mean time between failures (MTBF)	52.80 years when no interface card is configured, 41.33 years when a 2-port 10GE interface card is configured, 50.00 years when a 4-port GE front card is configured, 26.52 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode Using DC power modules: ±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	63 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)

Item	Description
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02352350

4.15.3 S5700-28C-PWR-EI

Version Mapping

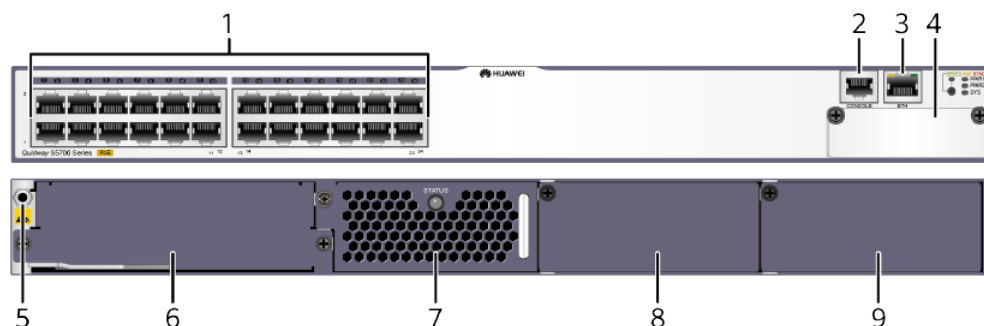
Table 4-719 lists the mapping between the S5700-28C-PWR-EI and software versions.

Table 4-719 Version mapping

Series	Model	Software Version
S5700-EI	S5700-28C-PWR-EI	V100R005C01 to V200R005C03 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 4-286 S5700-28C-PWR-EI appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	One console port
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3	One ETH management port	4	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 8.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card) 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
5	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	6	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.30 ES5D00ETPC00 (Stack Rear Card) 8.31 ES5D00ETPB00 (Extended Rear Card)
7	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-720](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-720 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-721](#).

Table 4-721 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-722](#) describes the attributes of an ETH management port.

Table 4-722 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Indicator Description

Figure 4-287 Indicators on the S5700-28C-PWR-EI

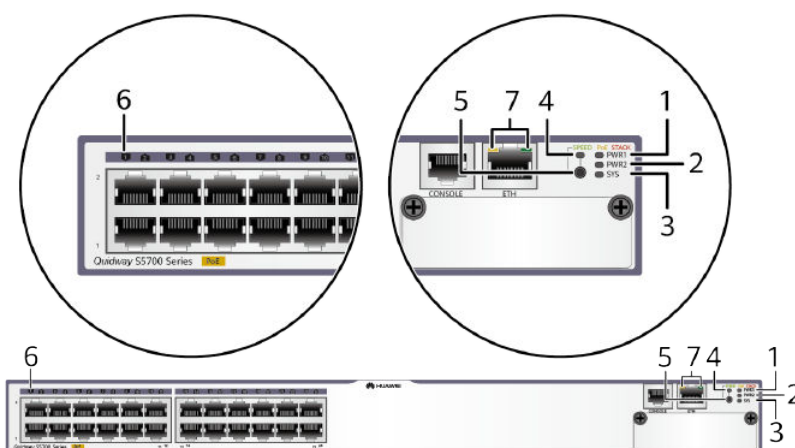


Table 4-723 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.

Number	Indicator/ Button	Color	Description
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The system power and PoE power are faulty.
		Yellow	Steady on: If a single power module is installed, the PoE power is out of range. If dual power modules are installed, the system power or PoE power is out of range.
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The system power and PoE power are faulty.
		Yellow	Steady on: If a single power module is installed, the PoE power is out of range. If dual power modules are installed, the system power or PoE power is out of range.

Number	Indicator/ Button	Color	Description
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none">Steady on: The system is not operating properly or is starting.Slow blinking: The system is running normally.
		Yellow	Steady on: The system is performing self-check during startup.
		Red	Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.
4	Mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.
		Yellow	Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/Button	Color	Description
5	Mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port. When you press this button a second time, the mode indicator turns red and the service port indicators show the stack status. When you press this button a third time, the mode indicator turns yellow and the service port indicators show the PoE status. When you press this button a fourth time, the mode indicator turns off. <p>If you do not press the button within 45 seconds, the mode indicator restores to status mode.</p>
6	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-724 .	
7	ETH indicator	-	Off: No link is established on the port.
		Green	Steady on: The port is connected.
		Yellow	Blinking: The port is sending or receiving data.

Table 4-724 Description of service port indicators in different modes

Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: The port is connected. Blinking: The port is sending or receiving data.

Display Mode	Color	Description
Speed	Green	<ul style="list-style-type: none"> ● Off: The port is not connected or has been shut down. ● Steady on: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s. ● Blinking: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	Green	<ul style="list-style-type: none"> ● Off: The port does not provide PoE power. ● Steady on: The port is providing PoE power. ● Blinking: The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.
Stack	Green	<ul style="list-style-type: none"> ● Off: The STCK mode is not selected. ● If the indicator is steady on, the switch is not a master switch: <ul style="list-style-type: none"> - If the indicator of a port is steady on, the number of this port is the stack ID of the switch. - If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0. ● If the indicator is blinking, the switch is a master switch: <ul style="list-style-type: none"> - If the indicator of a port is blinking, the number of this port is the stack ID of the switch. - If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

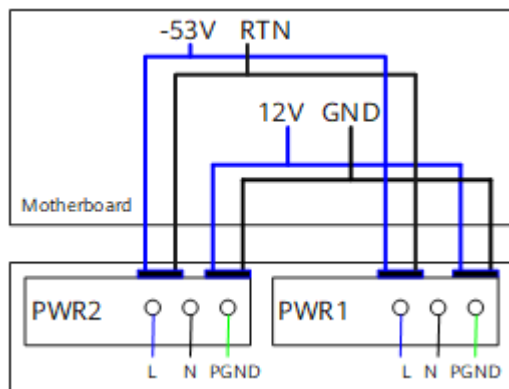
The S5700-28C-PWR-EI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 4-725](#) lists its power supply configurations.

Table 4-725 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	-	123.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 4
500 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 8
500 W	500 W	369.6 W (with PCB of version A for the S5700-28C-PWR-EI)	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
		739.2 W (with PCB of version B for the S5700-28C-PWR-EI)	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

[Figure 4-288](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

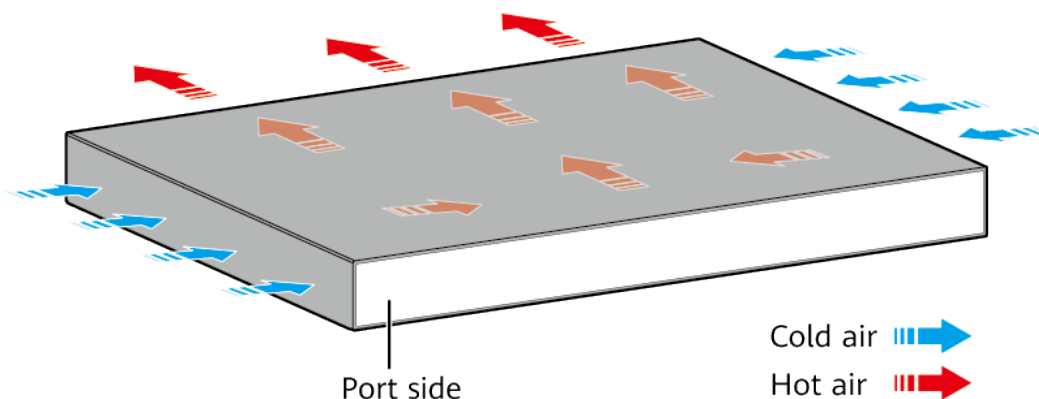
Figure 4-288 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-28C-PWR-EI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-726](#) lists technical specifications of the S5700-28C-PWR-EI.

Table 4-726 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB

Item	Description
Mean time between failures (MTBF)	52 years when a 2-port 10GE interface card is configured, 55.4 years when a 4-port GE front card is configured, 32.92 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1 kV in common mode
Power supply surge protection	±2 kV in differential mode, ±4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> • Empty: ≤ 5 kg (11.02 lb) • Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	842 W (system power consumption: 102 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352361

4.15.4 S5700-52C-EI

Version Mapping

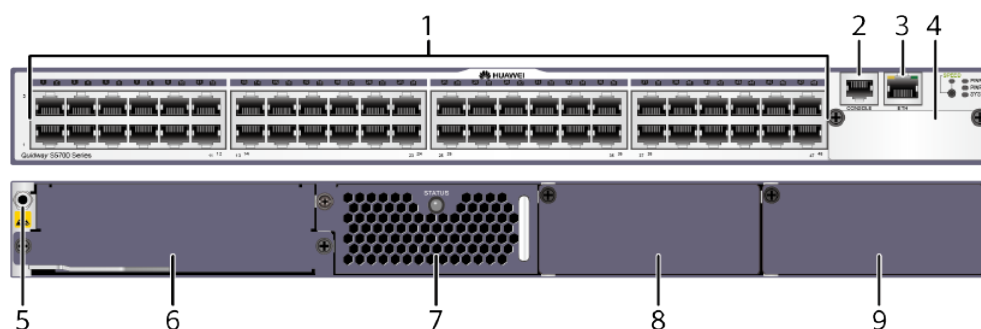
[Table 4-727](#) lists the mapping between the S5700-52C-EI and software versions.

Table 4-727 Version mapping

Series	Model	Software Version
S5700-EI	S5700-52C-EI	V100R005C01 to V200R005C03 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 4-289 S5700-52C-EI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	One console port
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3	One ETH management port	4	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 8.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card) 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
5	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	6	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.30 ES5D00ETPC00 (Stack Rear Card) 8.31 ES5D00ETPB00 (Extended Rear Card)
7	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-728](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-728 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-729](#).

Table 4-729 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-730](#) describes the attributes of an ETH management port.

Table 4-730 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Indicator Description

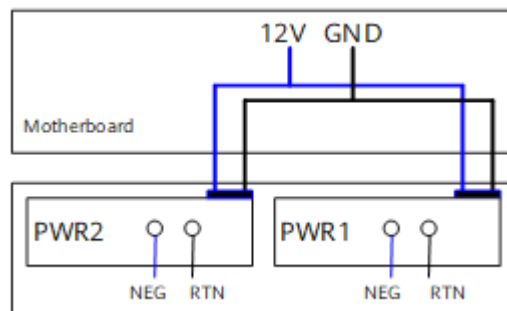
The S5700-52C-EI has the same types of indicators as the S5700-28C-EI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52C-EI can use a single power module or double power modules for 1+1 power redundancy. In versions prior to V200R005C00, the switch cannot use pluggable AC and DC power modules simultaneously. In V200R005C00 and later versions, the switch supports mixing of pluggable AC and DC power modules.

[Figure 4-290](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-290 Power supply connections of dual DC power modules



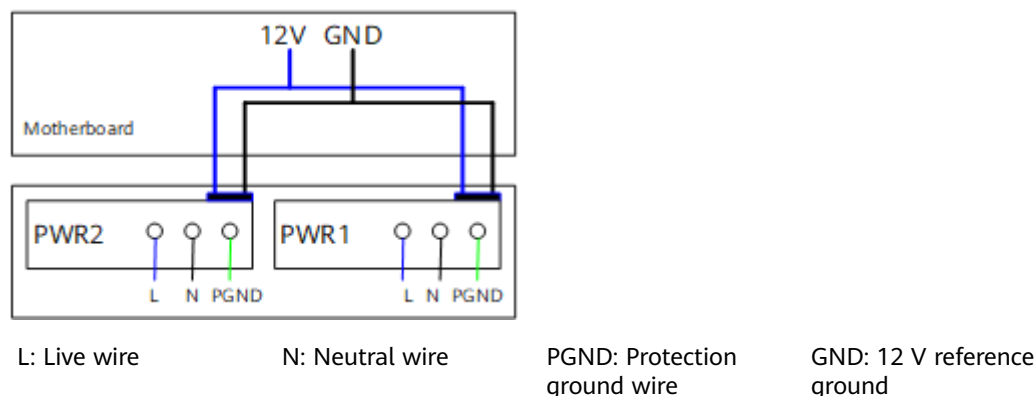
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

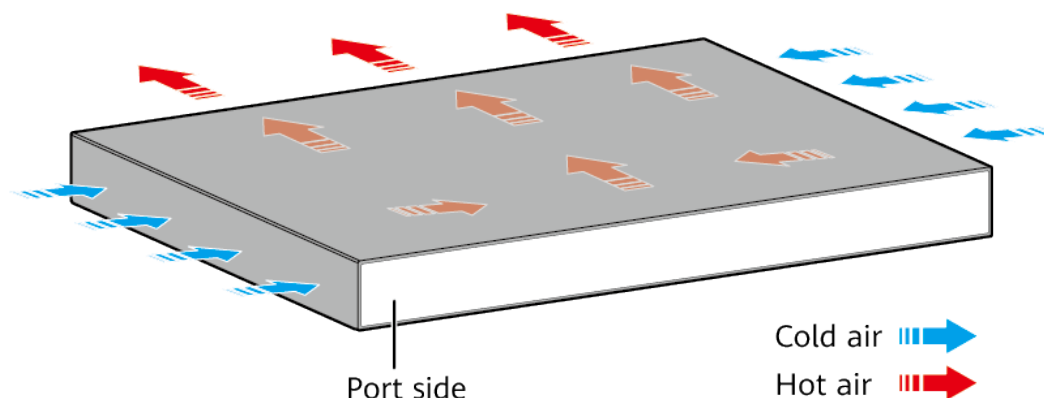
[Figure 4-291](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-291 Power supply connections of dual AC power modules



Heat Dissipation

The S5700-52C-EI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-731 lists technical specifications of the S5700-52C-EI.

Table 4-731 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	46.05 years when a 2-port 10GE interface card is configured, 57.08 years when a 4-port GE front card is configured, 25.58 years when a 4x10GE front card is configured

Item	Description
Mean time to repair (MTTR)	2 years
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	88 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352354

4.15.5 S5700-52C-PWR-EI

Version Mapping

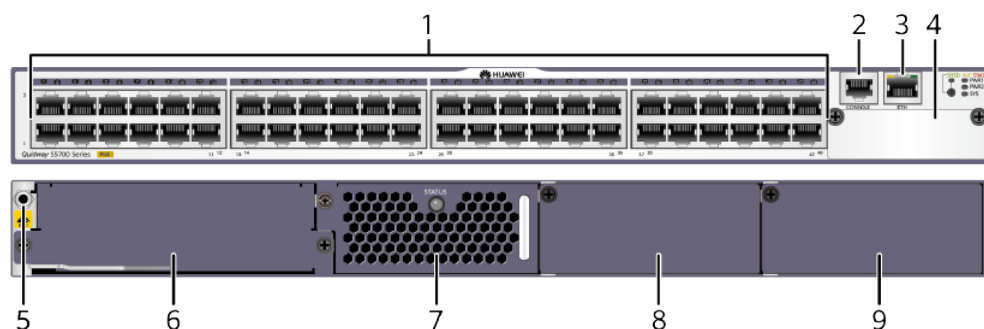
[Table 4-732](#) lists the mapping between the S5700-52C-PWR-EI and software versions.

Table 4-732 Version mapping

Series	Model	Software Version
S5700-EI	S5700-52C-PWR-EI	V100R005C01 to V200R005C03 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 4-292 S5700-52C-PWR-EI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	One console port
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3	One ETH management port	4	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 8.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card) 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
5	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	6	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.30 ES5D00ETPC00 (Stack Rear Card) 8.31 ES5D00ETPB00 (Extended Rear Card)
7	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-733](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-733 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-734](#).

Table 4-734 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-735](#) describes the attributes of an ETH management port.

Table 4-735 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Indicator Description

The S5700-52C-PWR-EI has the same types of indicators as the S5700-28C-PWR-EI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52C-PWR-EI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 4-736](#) lists its power supply configurations.

Table 4-736 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	–	123.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 8• 802.3at (30 W per port): 4
500 W	–	369.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 16• 802.3at (30 W per port): 8
500 W	500 W	739.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 24

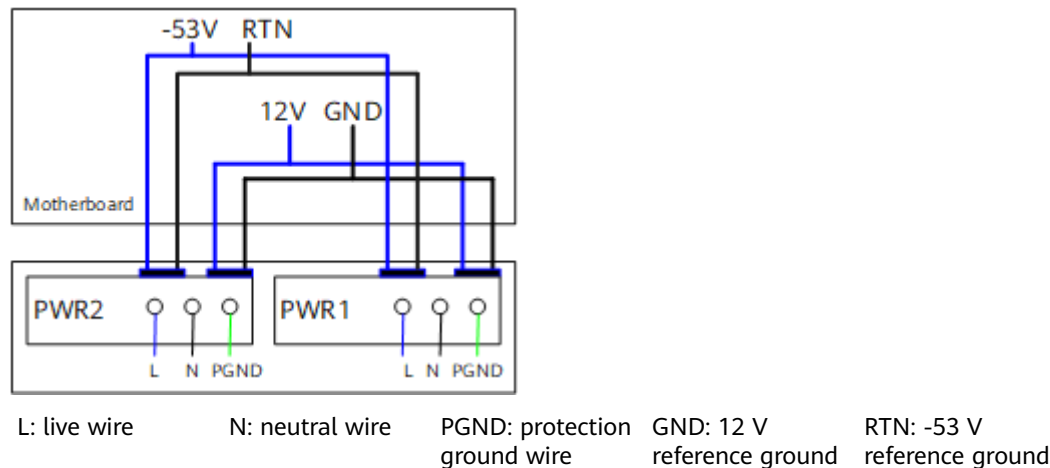
NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-293](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR

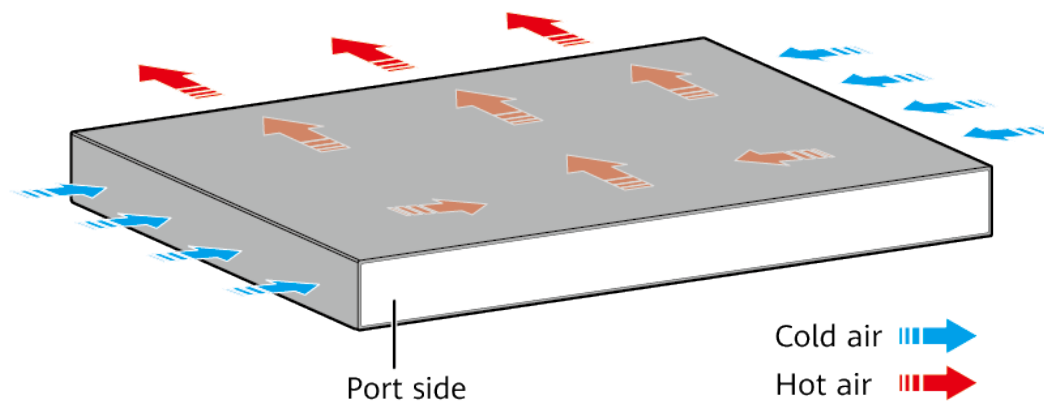
modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 4-293 Power supply by dual AC PoE power modules



Heat Dissipation

The S5700-52C-PWR-EI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-737](#) lists technical specifications of the S5700-52C-PWR-EI.

Table 4-737 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	44.8 years when a 2-port 10GE interface card is configured, 66.8 years when a 4-port GE front card is configured, 29.89 years when a 4x10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> • Empty: ≤ 5 kg (11.02 lb) • Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	930 W (system power consumption: 190 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352366

4.16 S5710-EI

4.16.1 S5710-28C-EI

Version Mapping

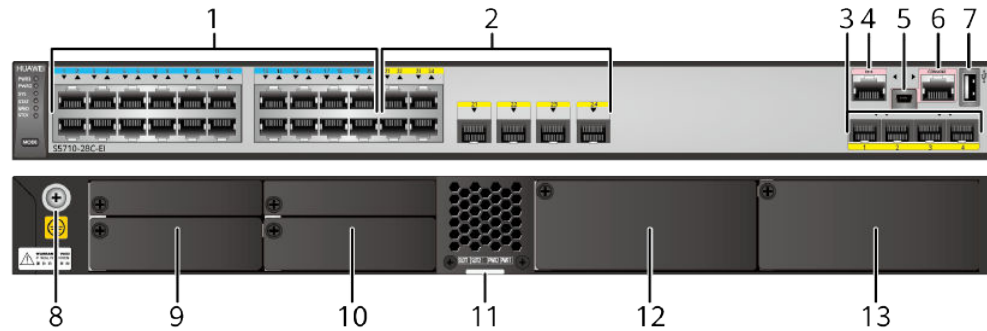
[Table 4-738](#) lists the mapping between the S5710-28C-EI chassis and software versions.

Table 4-738 Version mapping

Series	Model	Software Version
S5710-EI	S5710-28C-EI	V200R001C00 to V200R005C02 NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-294 S5710-28C-EI appearance



1	Twenty 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) 	4	One ETH management port
5	One mini USB port	6	One console port
7	One USB port	8	Ground screw NOTE It is used with a ground cable .

9	Rear card slot 1 NOTE Card supported: <ul style="list-style-type: none"> 8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) 8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) 8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card) 	10	Rear card slot 2 NOTE Card supported: <ul style="list-style-type: none"> 8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) 8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) 8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)
11	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	12	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module
13	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-739](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-739 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one

internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-740](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-740 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-741](#).

Table 4-741 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 4-742** describes the attributes of an ETH management port.

Table 4-742 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-295 Indicators on the S5710-28C-EI

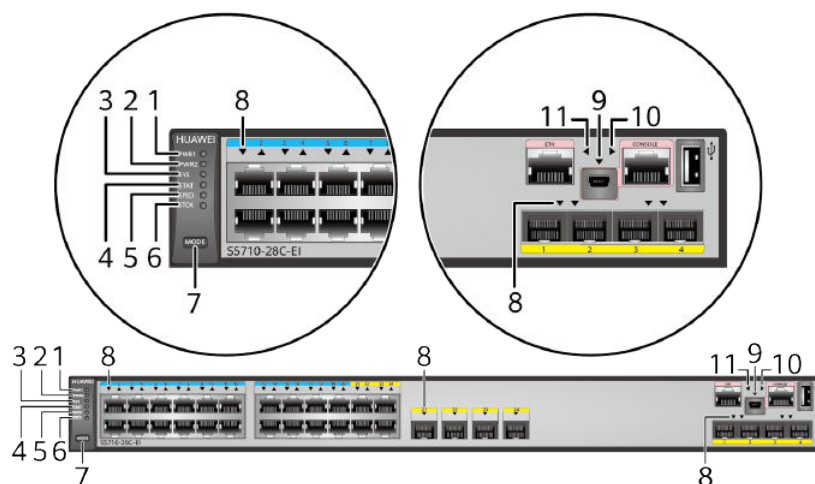


Table 4-743 Description of indicators on the switch

Number	Indicator	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.

Number	Indicator	Color	Description
		Yellow	<p>Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1:</p> <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in power module slot 1 fails.
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Yellow	<p>Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2:</p> <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in power module slot 2 fails.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> • Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive. • Slow blinking: The system is running properly.

Number	Indicator	Color	Description
		Yellow	Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: An error occurred during USB-based upgrade and the system failed to be upgraded after a USB flash drive is inserted.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in versions earlier than V200R003C00.	Green	<ul style="list-style-type: none"> Off: The stack mode is not selected. Steady on: The service port indicators show the stack information. After 45 seconds, the service port indicators automatically restore to the status mode. Blinking: The switch is the master switch in a stack or a standalone switch.

Number	Indicator	Color	Description
	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in V200R003C00 and later versions.	Green	<p>If you are not changing the indicator mode (default):</p> <ul style="list-style-type: none">• Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch.• Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">• Off: The stack mode is not selected.• Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.• Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

Number	Indicator	Color	Description
7	MODE: mode switch button	-	<ul style="list-style-type: none">When you press this button once, the service port indicators change to the speed mode and show the speed of each service port.When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch.When you press this button a third time, the STAT indicator turns green and the service port indicators restore to the default mode. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	Service port indicator <ul style="list-style-type: none">GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1.GE/10GE optical ports: Each port has an indicator above it.		Meanings of service port indicators vary in different modes. For details, see Table 4-744 .

Number	Indicator	Color	Description
9	Mini USB indicator	Green	<ul style="list-style-type: none"> Off: The Mini USB port is not active, and the console port is active. Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>
10	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. <p>When this LED is on, the Mini USB port indicator is off.</p>
11	ETH indicator	Green	<ul style="list-style-type: none"> Off: No link is established on the port. Steady on: The port is connected. Blinking: The port is sending or receiving data.

Table 4-744 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	<p>10M/100M/1000M port: The port is operating at 10/100 Mbit/s.</p> <p>1000M/10GE port: The port is operating at 1000 Mbit/s.</p>

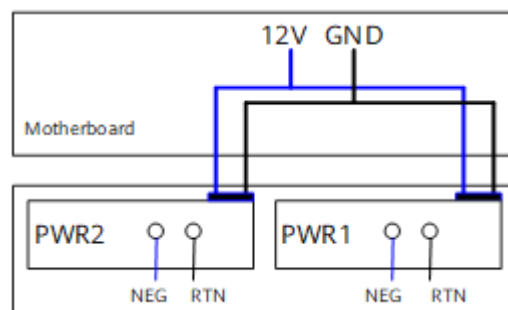
Display Mode	Color	Status	Description
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5710-28C-EI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-296 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-296 Power supply connections of dual DC power modules



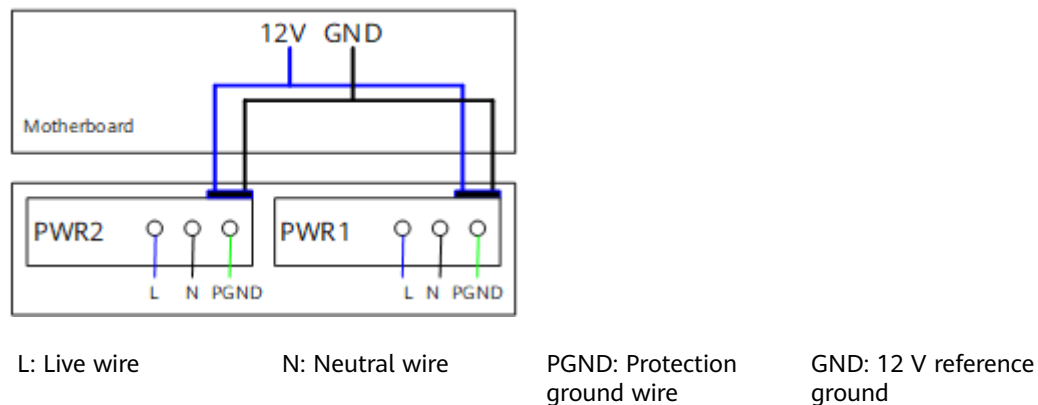
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

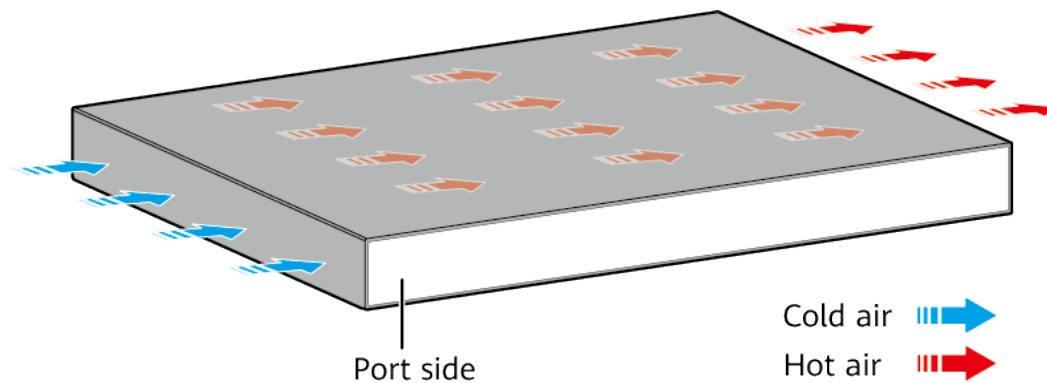
Figure 4-297 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-297 Power supply connections of dual AC power modules



Heat Dissipation

The S5710-28C-EI has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-745 lists technical specifications of the S5710-28C-EI.

Table 4-745 Technical specifications

Item	Description
Memory (RAM)	512 MB

Item	Description
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	55.98 years when an 8-port GE optical card is configured, 54.93 years when an 8-port GE electrical card is configured, 52.69 years when a 2-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 420.0 mm (1.75 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 6 kg (13.23 lb) Fully configured: ≤ 10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 2-port 10GE rear card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	98 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 53.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02353170

4.16.2 S5710-28C-PWR-EI-AC

Version Mapping

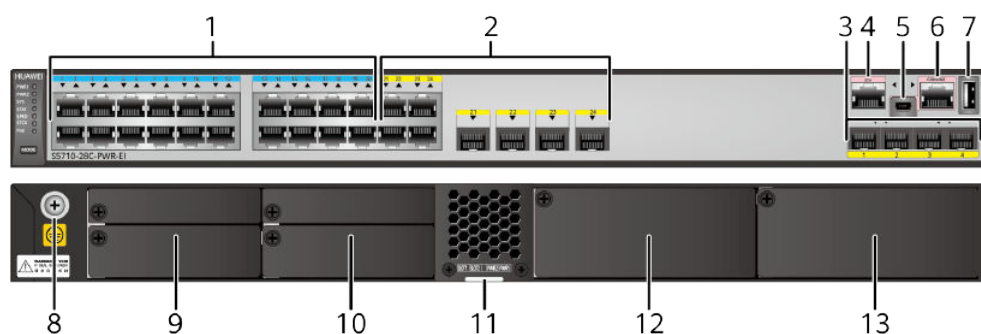
[Table 4-746](#) lists the mapping between the S5710-28C-PWR-EI-AC chassis and software versions.

Table 4-746 Version mapping

Series	Model	Software Version
S5710-EI	S5710-28C-PWR-EI-AC	V200R002C00 to V200R005C02 NOTE This model does not match V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-298 S5710-28C-PWR-EI-AC appearance



1	Twenty PoE+ 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) 	4	One ETH management port
5	One mini USB port	6	One console port
7	One USB port	8	Ground screw NOTE It is used with a ground cable .
9	Rear card slot 1 NOTE Card supported: <ul style="list-style-type: none"> • 8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card) 	10	Rear card slot 2 NOTE Card supported: <ul style="list-style-type: none"> • 8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)

1 1	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	1 2	Power module slot 2 NOTE Applicable power module: • 580 W AC PoE power module
1 3	Power module slot 1 NOTE Applicable power module: • 580 W AC PoE power module	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-747](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-747 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-748](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-748 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-749](#).

Table 4-749 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-750](#) describes the attributes of an ETH management port.

Table 4-750 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-299 Indicators on the S5710-28C-PWR-EI-AC

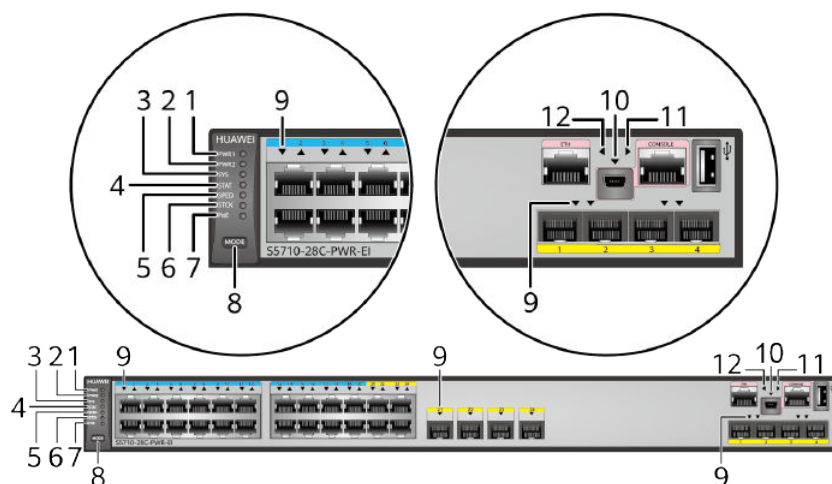


Table 4-751 Description of indicators on the switch

Number	Indicator	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.

Number	Indicator	Color	Description
		Yellow	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in power module slot 1 fails.
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Yellow	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in power module slot 2 fails.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> • Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive. • Slow blinking: The system is running properly.

Number	Indicator	Color	Description
		Yellow	Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: An error occurred during USB-based upgrade and the system failed to be upgraded after a USB flash drive is inserted.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in versions earlier than V200R003C00.	Green	<ul style="list-style-type: none"> Off: The stack mode is not selected. Steady on: The service port indicators show the stack information. After 45 seconds, the service port indicators automatically restore to the status mode. Blinking: The switch is the master switch in a stack or a standalone switch.

Number	Indicator	Color	Description
	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in V200R003C00 and later versions.	Green	<p>If you are not changing the indicator mode (default):</p> <ul style="list-style-type: none">• Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch.• Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">• Off: The stack mode is not selected.• Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.• Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE: PoE indicator	Green	<ul style="list-style-type: none">• Off: The PoE mode is not selected.• Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator	Color	Description
8	MODE: mode switch button	-	<ul style="list-style-type: none">When you press this button once, the service port indicators change to the speed mode and show the speed of each service port.When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch.When you press this button a third time, the service port indicators change to PoE mode and show the PoE status of ports.When you press this button a fourth time, the STAT indicator turns green and the service port indicators restore to the default mode. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	Service port indicator <ul style="list-style-type: none">GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1.GE/10GE optical ports: Each port has an indicator above it.		Meanings of service port indicators vary in different modes. For details, see Table 4-752 .

Number	Indicator	Color	Description
10	Mini USB indicator	Green	<ul style="list-style-type: none"> Off: The Mini USB port is not active, and the console port is active. Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>
11	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. <p>When this LED is on, the Mini USB port indicator is off.</p>
12	ETH indicator	Green	<ul style="list-style-type: none"> Off: No link is established on the port. Steady on: The port is connected. Blinking: The port is sending or receiving data.

Table 4-752 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	<p>10M/100M/1000M port: The port is operating at 10/100 Mbit/s.</p> <p>1000M/10GE port: The port is operating at 1000 Mbit/s.</p>

Display Mode	Color	Status	Description
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5710-28C-PWR-EI-AC is a PoE switch and uses 580 W AC PoE power modules. It has two power module slots. [Table 4-753](#) lists its power supply configurations.

Table 4-753 Power supply configurations

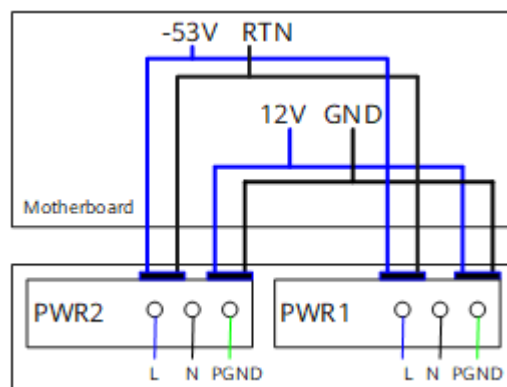
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
580 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
580 W	580 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-300](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 4-300 Power supply by dual AC PoE power modules



L: live wire

N: neutral wire

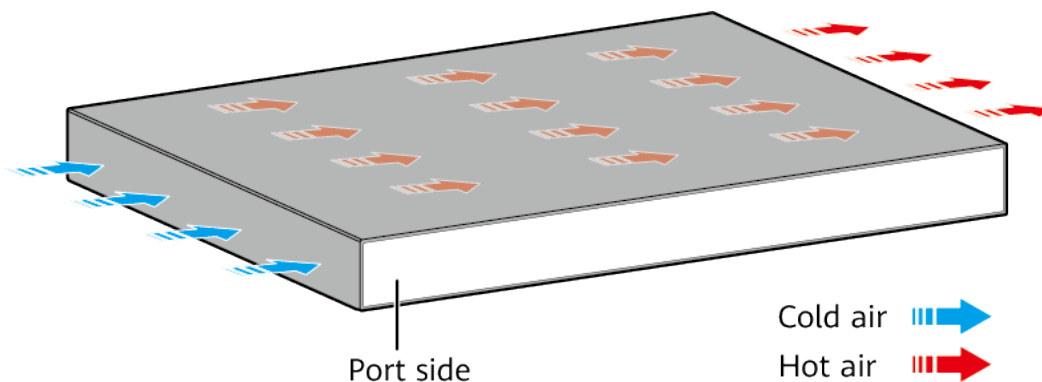
PGND: protection
ground wire

GND: 12 V
reference ground

RTN: -53 V
reference ground

Heat Dissipation

The S5710-28C-PWR-EI-AC has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-754](#) lists technical specifications of the S5710-28C-PWR-EI-AC.

Table 4-754 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	200 MB
Mean time between failures (MTBF)	51.28 years when an 8-port GE optical card is configured, 50.31 years when an 8-port GE electrical card is configured, 48.25 years when a 2-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 420.0 mm (1.75 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 6 kg (13.23 lb) Fully configured: ≤ 10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 2-port 10GE rear card

Item	Description
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	<ul style="list-style-type: none"> No card: 920 W (system power consumption: 180 W, PoE: 740 W) Two 8-port GE electrical card: 934 W (system power consumption: 194 W, PoE: 740 W) Two 8-port GE optical card: 942 W (system power consumption: 202 W, PoE: 740 W) Two 2-port 10GE optical card: 941 W (system power consumption: 201 W, PoE: 740 W)
Operating temperature	<p>0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02354038

4.16.3 S5710-52C-EI

Version Mapping

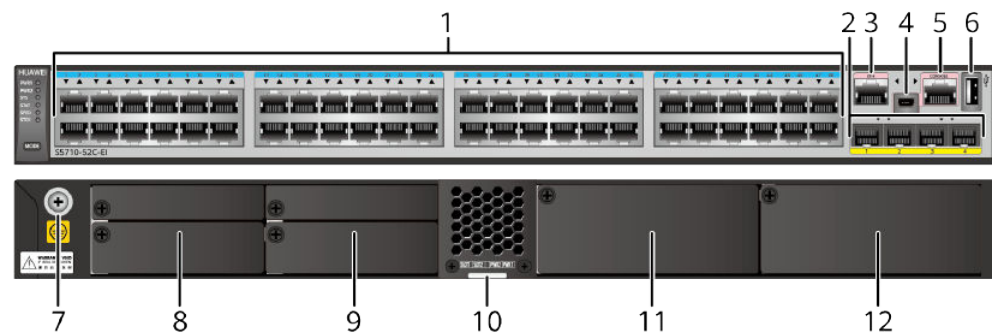
Table 4-755 lists the mapping between the S5710-52C-EI chassis and software versions.

Table 4-755 Version mapping

Series	Model	Software Version
S5710-EI	S5710-52C-EI	V200R001C00 to V200R005C02 NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-301 S5710-52C-EI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions)
3	One ETH management port	4	One mini USB port

5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot 1 NOTE Card supported: <ul style="list-style-type: none"> • 8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)
9	Rear card slot 2 NOTE Card supported: <ul style="list-style-type: none"> • 8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card) 	10	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-756](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-756 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-757](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-757 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-758](#).

Table 4-758 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-759](#) describes the attributes of an ETH management port.

Table 4-759 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

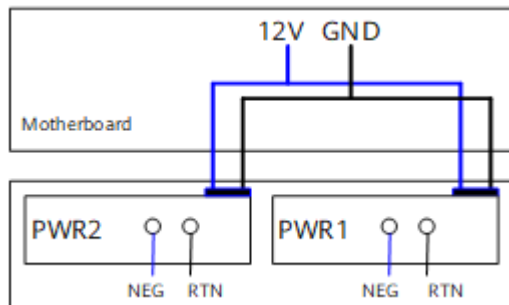
The S5710-52C-EI has the same types of indicators as the S5710-28C-EI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-52C-EI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-302 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-302 Power supply connections of dual DC power modules



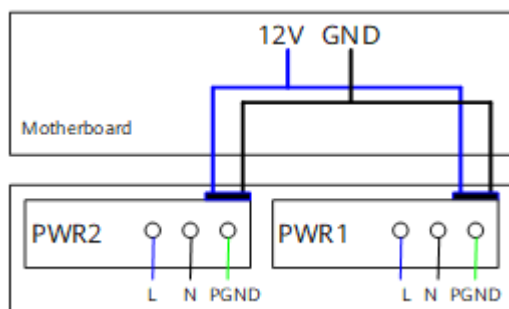
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-303 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-303 Power supply connections of dual AC power modules



L: Live wire

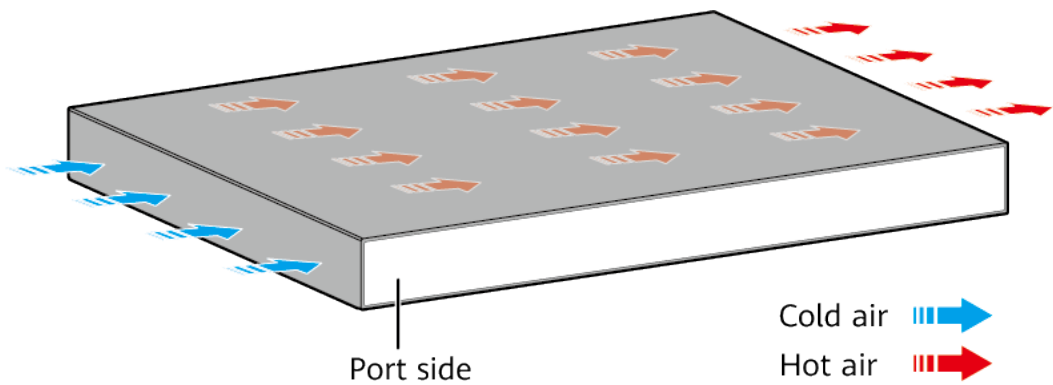
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5710-52C-EI has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-760 lists technical specifications of the S5710-52C-EI.

Table 4-760 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	45.57 years when an 8-port GE optical card is configured, 44.85 years when an 8-port GE electrical card is configured, 43.33 years when a 2-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 420.0 mm (1.75 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 6 kg (13.23 lb) Fully configured: ≤ 10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 2-port 10GE rear card

Item	Description
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	146.9 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02353169

4.16.4 S5710-52C-PWR-EI

Version Mapping

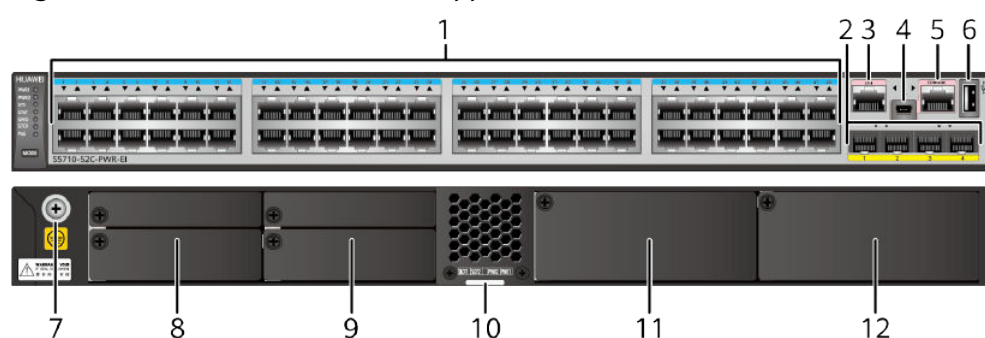
[Table 4-761](#) lists the mapping between the S5710-52C-PWR-EI chassis and software versions.

Table 4-761 Version mapping

Series	Model	Software Version
S5710-EI	S5710-52C-PWR-EI	V200R002C00 to V200R005C02 NOTE This model does not match V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-304 S5710-52C-PWR-EI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions)
3	One ETH management port	4	One mini USB port
5	One console port	6	One USB port

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Rear card slot 1</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> • 8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)
9	<p>Rear card slot 2</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> • 8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card) 	10	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
11	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 580 W AC PoE power module • 1150 W AC PoE power module 	12	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 580 W AC PoE power module • 1150 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-762](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-762 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-763](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-763 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-764](#).

Table 4-764 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the

software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-765](#) describes the attributes of an ETH management port.

Table 4-765 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5710-52C-PWR-EI has the same types of indicators as the S5710-28C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-52C-PWR-EI is a PoE switch and uses 580 W or 1150 W AC PoE power modules. It has two power module slots. [Table 4-766](#) lists its power supply configurations.

Table 4-766 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
580 W	–	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12

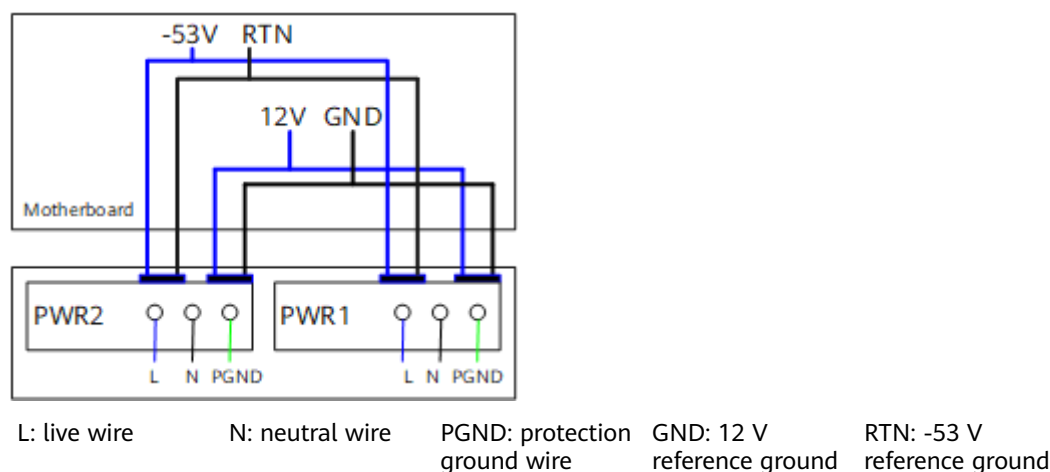
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
580 W	580 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24
1150 W	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26
1150 W	1150 W	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

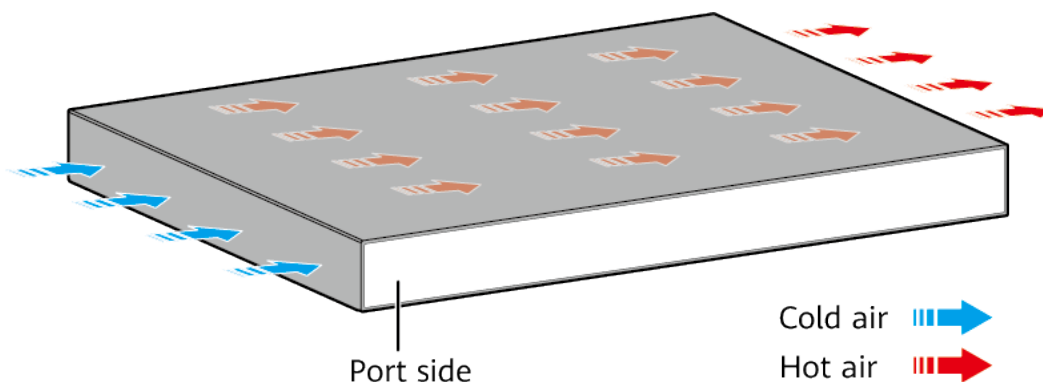
Figure 4-305 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 4-305 Power supply by dual AC PoE power modules



Heat Dissipation

The S5710-52C-PWR-EI has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-767](#) lists technical specifications of the S5710-52C-PWR-EI.

Table 4-767 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	200 MB
Mean time between failures (MTBF)	36.86 years when an 8-port GE optical card is configured, 36.35 years when an 8-port GE electrical card is configured, 35.27 years when a 2-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 580 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 420.0 mm (1.75 in. x 17.4 in. x 16.5 in.) When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 507.3 mm (19.97 in.).

Item	Description
Weight	<ul style="list-style-type: none"> • Empty: ≤ 6 kg (13.23 lb) • Fully configured: ≤ 10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 2-port 10GE rear card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	<p>Using two 580 W power modules</p> <ul style="list-style-type: none"> • No card: 1023 W (system power consumption: 283 W, PoE: 740 W) • Two 8-port GE electrical card: 1035 W (system power consumption: 295 W, PoE: 740 W) • Two 8-port GE optical card: 1043 W (system power consumption: 303 W, PoE: 740 W) • Two 2-port 10GE optical card: 1040 W (system power consumption: 300 W, PoE: 740 W) <p>Using two 1150 W power modules</p> <ul style="list-style-type: none"> • No card: 1605 W (system power consumption: 165 W, PoE: 1440 W) • Two 8-port GE electrical card: 1625 W (system power consumption: 185 W, PoE: 1440 W) • Two 8-port GE optical card: 1635 W (system power consumption: 195 W, PoE: 1440 W) • Two 2-port 10GE optical card: 1633 W (system power consumption: 193 W, PoE: 1440 W)
Operating temperature	<p>0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 60 dB(A)

Item	Description
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02355886

4.16.5 S5710-52C-PWR-EI-AC

Version Mapping

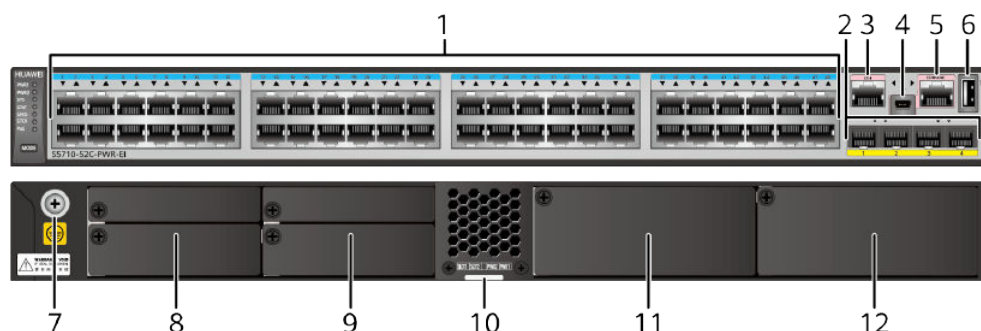
Table 4-768 lists the mapping between the S5710-52C-PWR-EI-AC chassis and software versions.

Table 4-768 Version mapping

Series	Model	Software Version
S5710-EI	S5710-52C-PWR-EI-AC	V200R002C00 to V200R005C02 NOTE This model does not match V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-306 S5710-52C-PWR-EI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions)
3	One ETH management port	4	One mini USB port
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot 1 NOTE Card supported: <ul style="list-style-type: none"> • 8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)
9	Rear card slot 2 NOTE Card supported: <ul style="list-style-type: none"> • 8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card) 	10	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
11	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 580 W AC PoE power module 	12	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 580 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-769](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-769 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-770](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-770 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-771](#).

Table 4-771 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 4-772** describes the attributes of an ETH management port.

Table 4-772 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5710-52C-PWR-EI-AC has the same types of indicators as the S5710-28C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-52C-PWR-EI-AC is a PoE switch and uses 580 W AC PoE power modules. It has two power module slots. [Table 4-773](#) lists its power supply configurations.

Table 4-773 Power supply configurations

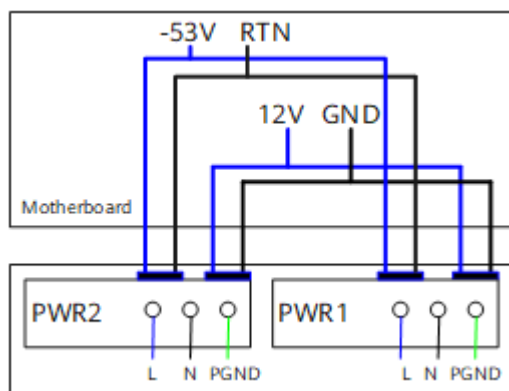
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
580 W	-	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12
580 W	580 W	739.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 48802.3at (30 W per port): 24

 NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-307](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

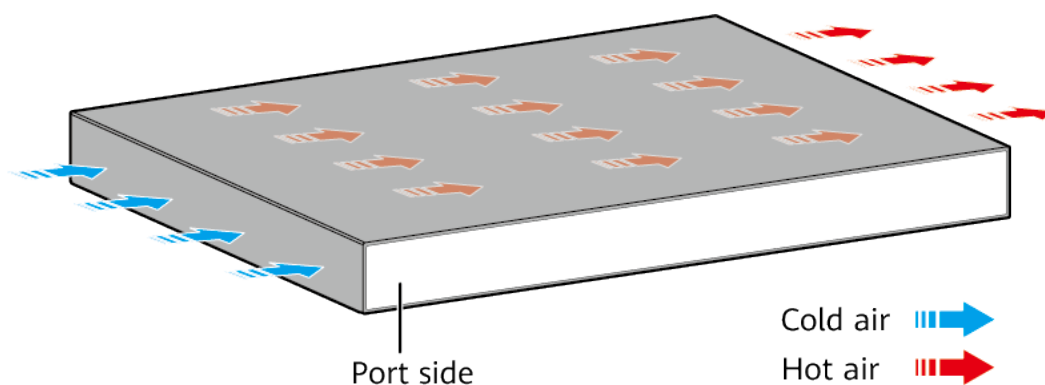
Figure 4-307 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5710-52C-PWR-EI-AC has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-774](#) lists technical specifications of the S5710-52C-PWR-EI-AC.

Table 4-774 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	200 MB

Item	Description
Mean time between failures (MTBF)	36.86 years when an 8-port GE optical card is configured, 36.35 years when an 8-port GE electrical card is configured, 35.27 years when a 2-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 420.0 mm (1.75 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 6 kg (13.23 lb) Fully configured: ≤ 10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 2-port 10GE rear card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	<ul style="list-style-type: none"> No card: 1023 W (system power consumption: 283 W, PoE: 740 W) Two 8-port GE electrical card: 1035 W (system power consumption: 295 W, PoE: 740 W) Two 8-port GE optical card: 1043 W (system power consumption: 303 W, PoE: 740 W) Two 2-port 10GE optical card: 1040 W (system power consumption: 300 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 60 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02354042

4.17 S5720-EI

4.17.1 S5720-36C-EI-AC

Version Mapping

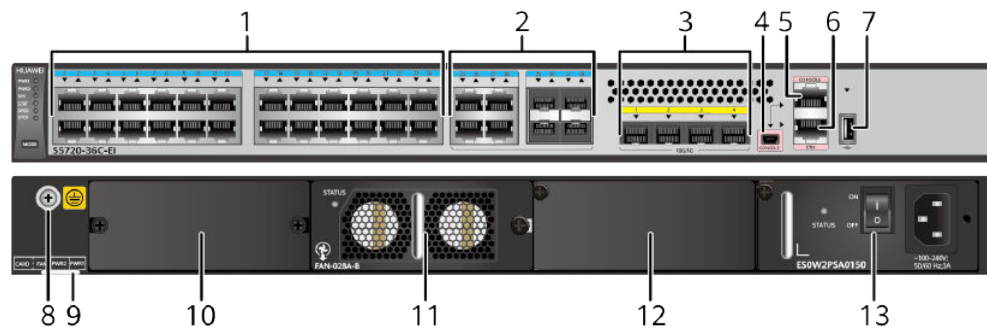
[Table 4-775](#) lists the mapping between the S5720-36C-EI-AC chassis and software versions.

Table 4-775 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-308 S5720-36C-EI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2 Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4 One mini USB port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One ETH management port
7	One USB port	8	Ground screw NOTE It is used with a ground cable .
9	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	10	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)
11	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module	12	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
13	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-776](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-776 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-777](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-777 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-778](#).

Table 4-778 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-779](#) describes the attributes of an ETH management port.

Table 4-779 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-36C-EI-AC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-36C-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-36C-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-309](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-309 Power supply connections of dual DC power modules

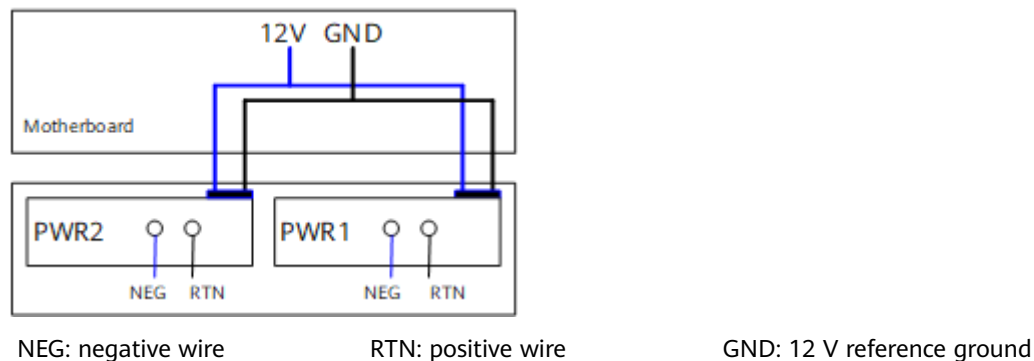
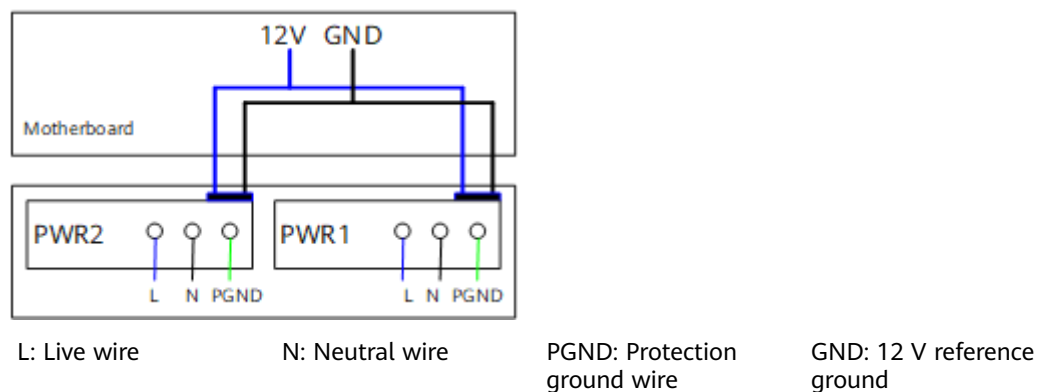


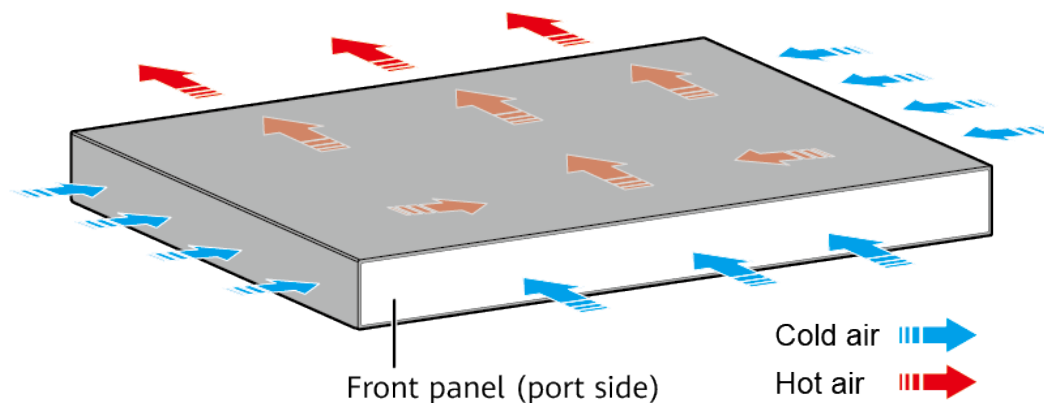
Figure 4-310 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-310 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-36C-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-780 lists technical specifications of the S5720-36C-EI-AC.

Table 4-780 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	80.05 years when no card is configured; 73.65 years when a 2-port 10GE SFP+ interface card is configured; 71.58 years when a 2-port 10GE RJ45 interface card is configured; 71.74 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.8 kg (21.61 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	75.8 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	<ul style="list-style-type: none">• 39.5 W (without subcard)• 47.28 W (with 2*10G optical subcards)• 52.17 W (2*QSFP+ stack cards)• 55.14 W (with 2*10G electrical subcards)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359562

4.17.2 S5720-36C-EI-DC

Version Mapping

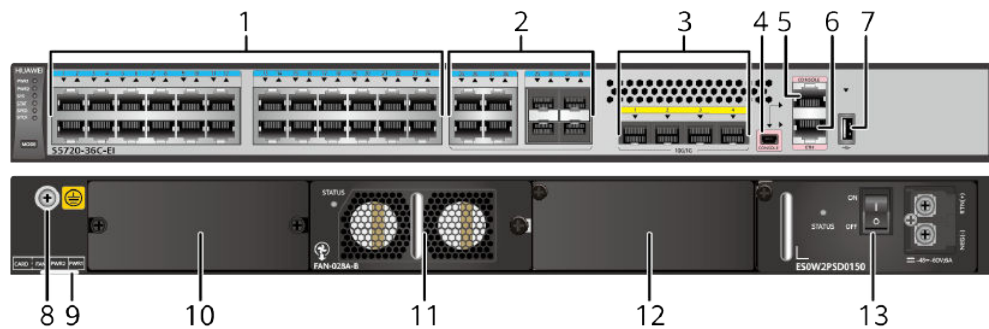
[Table 4-781](#) lists the mapping between the S5720-36C-EI-DC chassis and software versions.

Table 4-781 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-311 S5720-36C-EI-DC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> ● FE optical module ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	<p>One mini USB port</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One ETH management port</p>
7	<p>One USB port</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>	10	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)

1 1	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-782](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-782 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-783](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-783 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-784](#).

Table 4-784 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-785](#) describes the attributes of an ETH management port.

Table 4-785 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not

support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

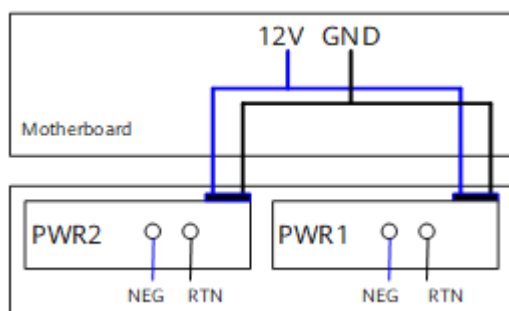
The S5720-36C-EI-DC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-56C-EI-DC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-36C-EI-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-312](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-312 Power supply connections of dual DC power modules



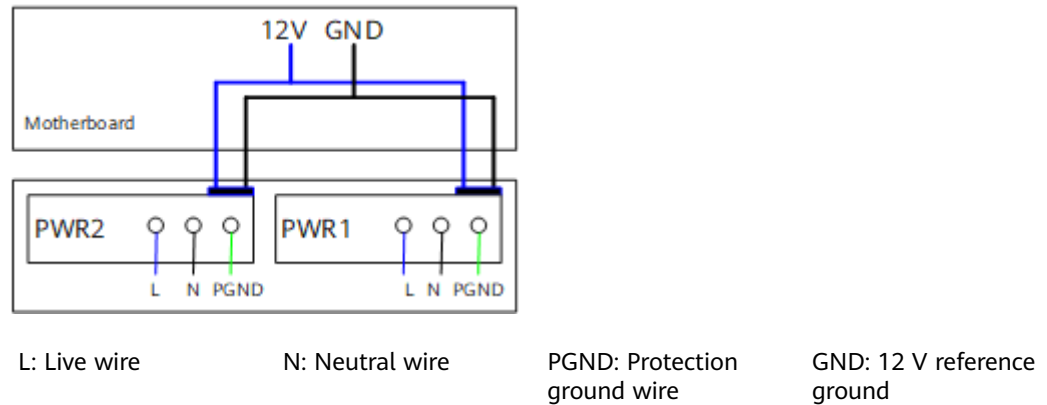
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

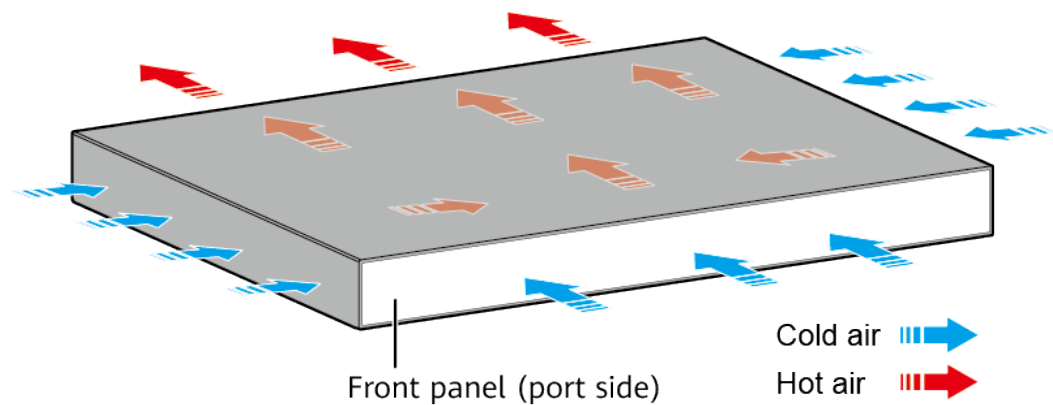
[Figure 4-313](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-313 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-36C-EI-DC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-786](#) lists technical specifications of the S5720-36C-EI-DC.

Table 4-786 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	80.05 years when no card is configured; 73.65 years when a 2-port 10GE SFP+ interface card is configured; 71.58 years when a 2-port 10GE RJ45 interface card is configured; 71.74 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.6 kg (21.17 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	75.8 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 39.5 W (without card) • 47.28 W (with 2*10GE optical card) • 52.17 W (with 2*QSFP+ stack card) • 55.14 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHJ

4.17.3 S5720-36C-EI-28S-AC

Version Mapping

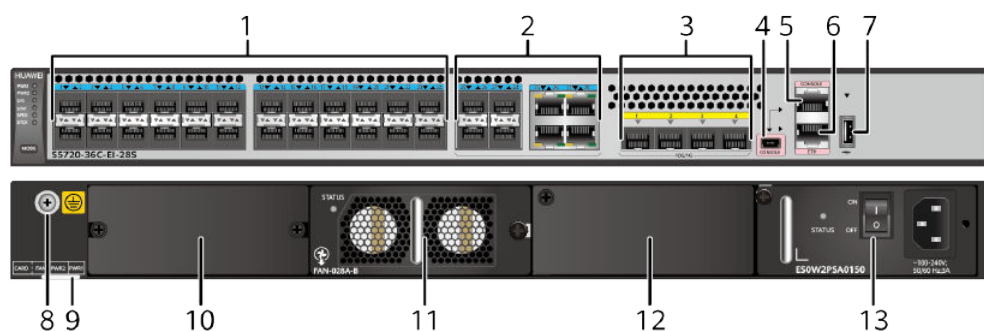
[Table 4-787](#) lists the mapping between the S5720-36C-EI-28S-AC chassis and software versions.

Table 4-787 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-EI-28S-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-314 S5720-36C-EI-28S-AC appearance



1	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	<p>One mini USB port</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One ETH management port</p>
7	<p>One USB port</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

9	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	1 0	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)
1 1	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-788](#) describes the attributes of a 100/1000BASE-X port.

Table 4-788 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The

electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-789](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-789 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-790](#).

Table 4-790 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-791](#) describes the attributes of an ETH management port.

Table 4-791 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

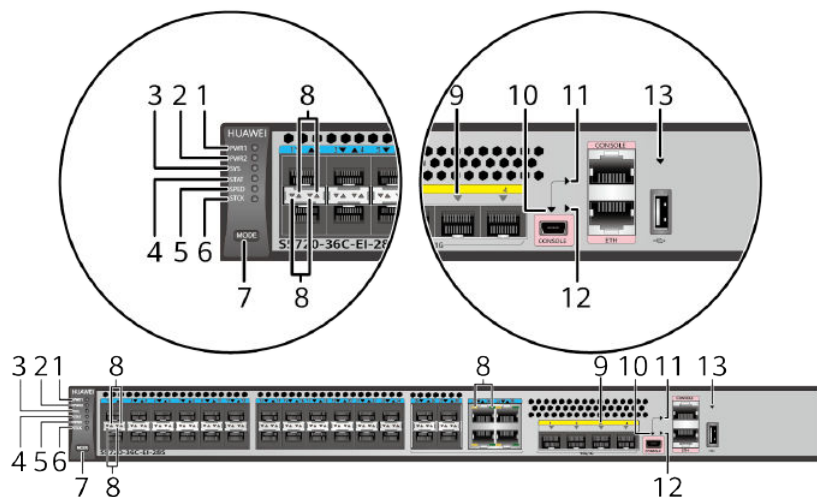
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-315 Indicators on the S5720-36C-EI-28S-AC



NOTE

The S5720-EI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720-EI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-792 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator (two indicators for each port)	Meanings of service port indicators vary in different modes. For details, see Table 4-793 .		
9	-	Service port indicator (one indicator for each port)	Meanings of service port indicators vary in different modes. For details, see Table 4-794 .		
10	-	Mini USB indicator	-	Off	The Mini USB port is disabled, and the console port is enabled.
			Green	Steady on	The Mini USB port is enabled. When the Mini USB indicator is steady green, the console indicator is off.
11	-	Console indicator	-	Off	The console port is disabled, and the Mini USB port is enabled.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The console port is enabled (default state). When the console indicator is steady green, the Mini USB indicator is off.
12	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
13	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-793 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 4-794 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.

Display Mode	Color	Status	Description
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-36C-EI-28S-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-316 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-316 Power supply connections of dual DC power modules

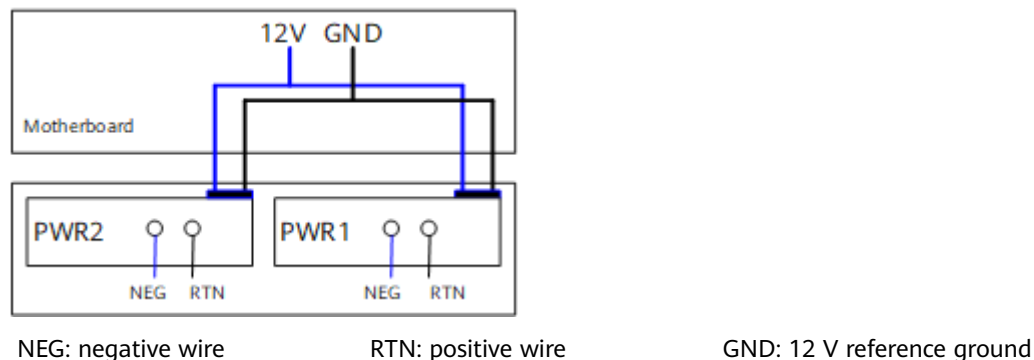
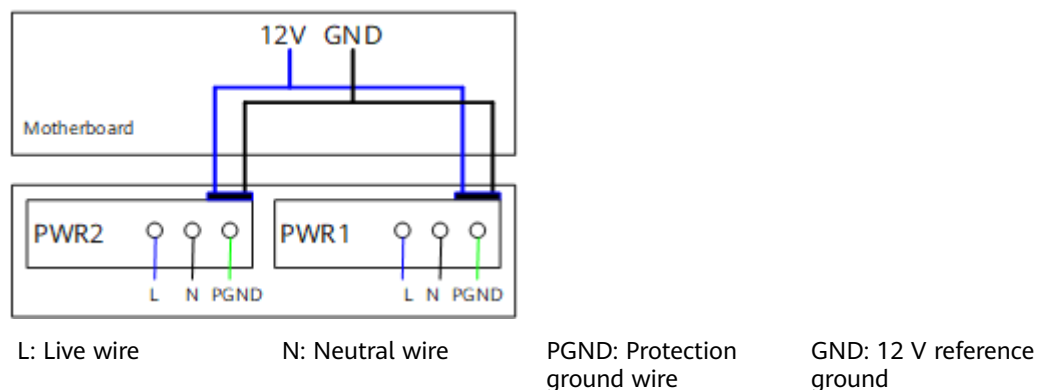


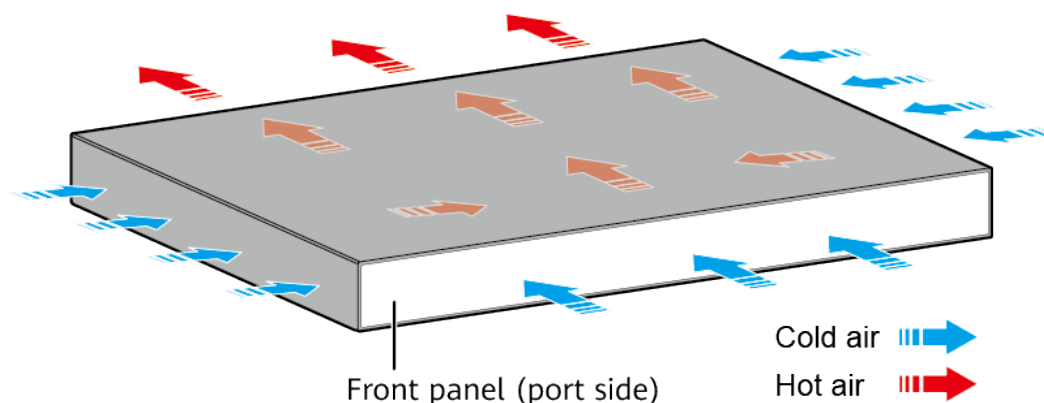
Figure 4-317 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-317 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-36C-EI-28S-AC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-795 lists technical specifications of the S5720-36C-EI-28S-AC.

Table 4-795 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.45 years when no card is configured; 78.2 years when a 2-port 10GE SFP+ interface card is configured; 75.87 years when a 2-port 10GE RJ45 interface card is configured; 76.05 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.9 kg (21.83 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	83.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	<ul style="list-style-type: none">• 47.86 W (without card)• 55.35 W (with 2*10GE optical card)• 60.25 W (with 2*QSFP+ stack card)• 63.5 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359503

4.17.4 S5720-36C-EI-28S-DC

Version Mapping

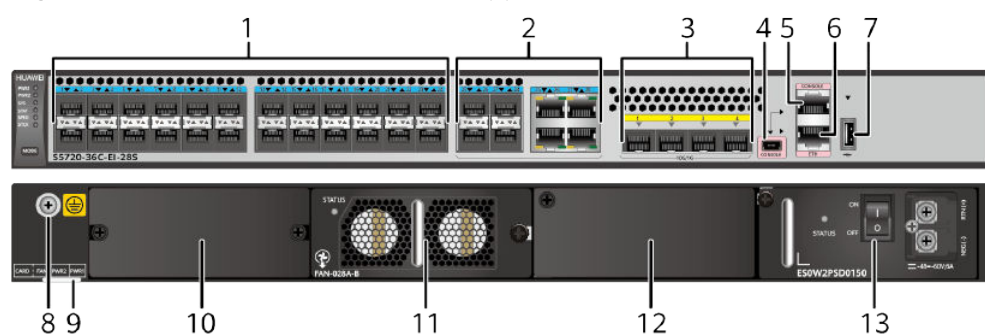
[Table 4-796](#) lists the mapping between the S5720-36C-EI-28S-DC chassis and software versions.

Table 4-796 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-EI-28S-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-318 S5720-36C-EI-28S-DC appearance



1	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
---	--	---	--

3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	<p>One mini USB port</p>
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One ETH management port</p>
7	<p>One USB port</p>	8	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
9	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>	10	<p>Rear card slot</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)

1 1	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-797](#) describes the attributes of a 100/1000BASE-X port.

Table 4-797 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-798](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-798 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-799](#).

Table 4-799 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-800** describes the attributes of an ETH management port.

Table 4-800 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not

support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

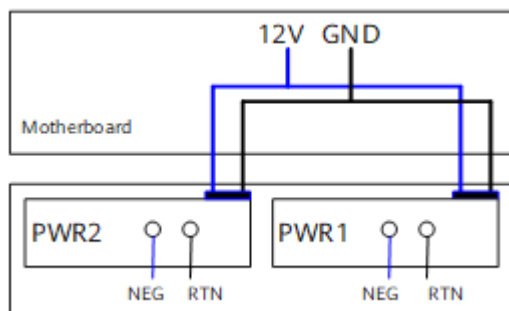
The S5720-36C-EI-28S-DC has the same types of indicators as the S5720-36C-EI-28S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-36C-EI-28S-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-319](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-319 Power supply connections of dual DC power modules



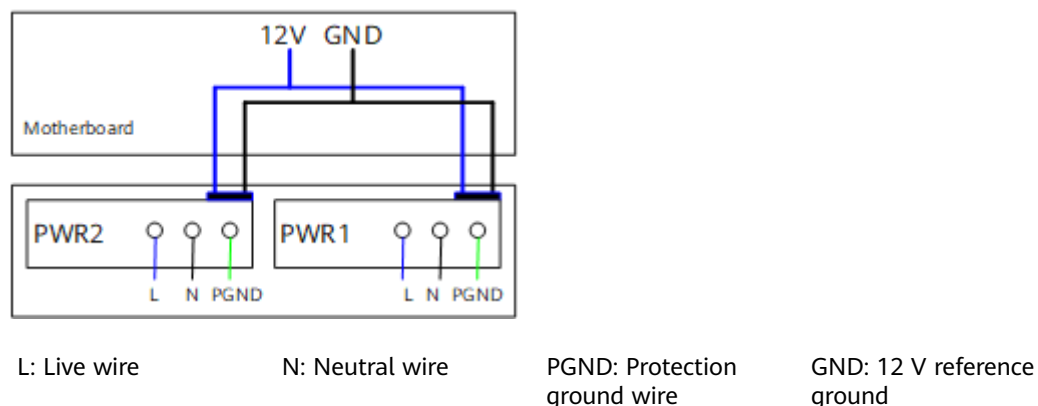
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

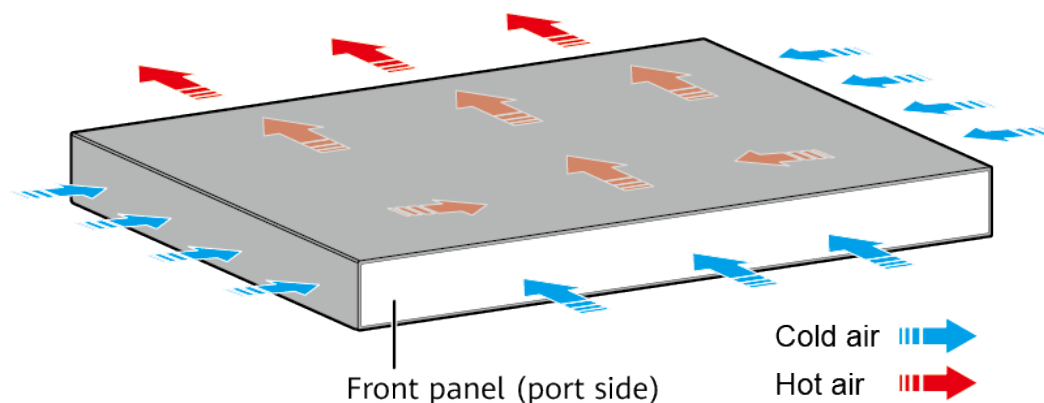
[Figure 4-320](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-320 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-36C-EI-28S-DC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-801 lists technical specifications of the S5720-36C-EI-28S-DC.

Table 4-801 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	85.45 years when no card is configured; 78.2 years when a 2-port 10GE SFP+ interface card is configured; 75.87 years when a 2-port 10GE RJ45 interface card is configured; 76.05 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.7 kg (21.39 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	83.9 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 47.86 W (without card) • 55.35 W (with 2*10GE optical card) • 60.25 W (with 2*QSFP+ stack card) • 63.5 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHN

4.17.5 S5720-36C-PWR-EI-AC

Version Mapping

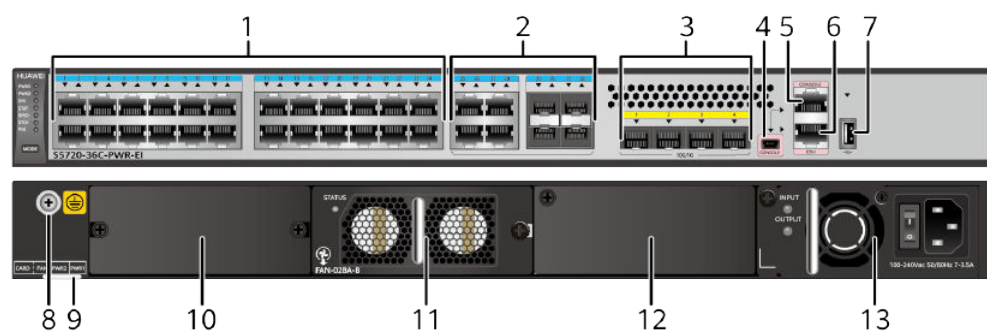
Table 4-802 lists the mapping between the S5720-36C-PWR-EI-AC chassis and software versions.

Table 4-802 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-PWR-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-321 S5720-36C-PWR-EI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One ETH management port
7	One USB port	8	Ground screw NOTE It is used with a ground cable .

9	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	1 0	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)
1 1	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 500 W AC PoE power module 650 W DC PoE power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 500 W AC PoE power module 650 W DC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-803](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-803 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-804](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-804 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-805](#).

Table 4-805 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-806](#) describes the attributes of an ETH management port.

Table 4-806 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

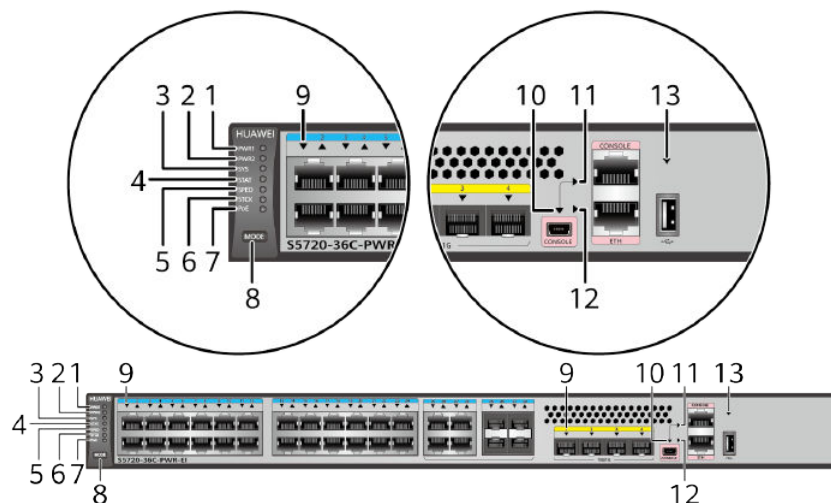
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-322 Indicators on the S5720-36C-PWR-EI-AC



NOTE

The S5720-EI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720-EI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-807 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-808 .		
10	-	Mini USB indicator	-	Off	The Mini USB port is disabled, and the console port is enabled.
			Green	Steady on	The Mini USB port is enabled. When the Mini USB indicator is steady green, the console indicator is off.
11	-	Console indicator	-	Off	The console port is disabled, and the Mini USB port is enabled.
			Green	Steady on	The console port is enabled (default state). When the console indicator is steady green, the Mini USB indicator is off.

No.	Indicator	Name	Color	Status	Description
12	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
13	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-808 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green	Blinking	<p>The switch is the master switch in a stack.</p> <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-36C-PWR-EI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 4-809](#) lists its power supply configurations.

Table 4-809 Power supply configurations

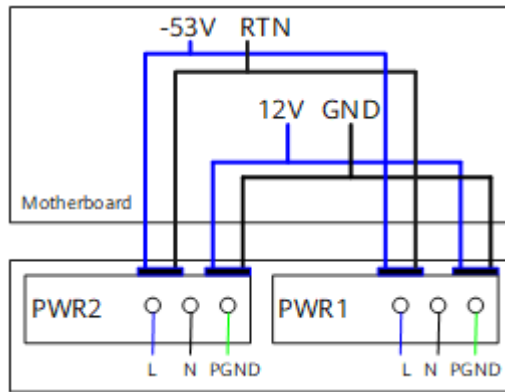
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 28 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-323](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

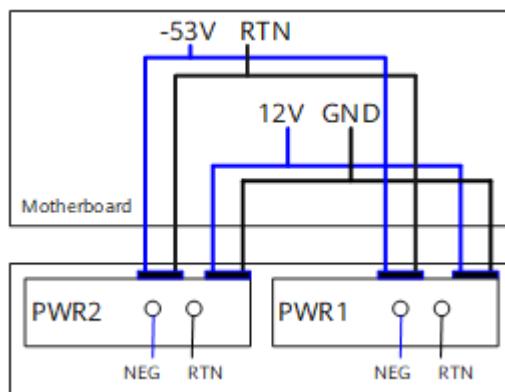
Figure 4-323 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-324 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

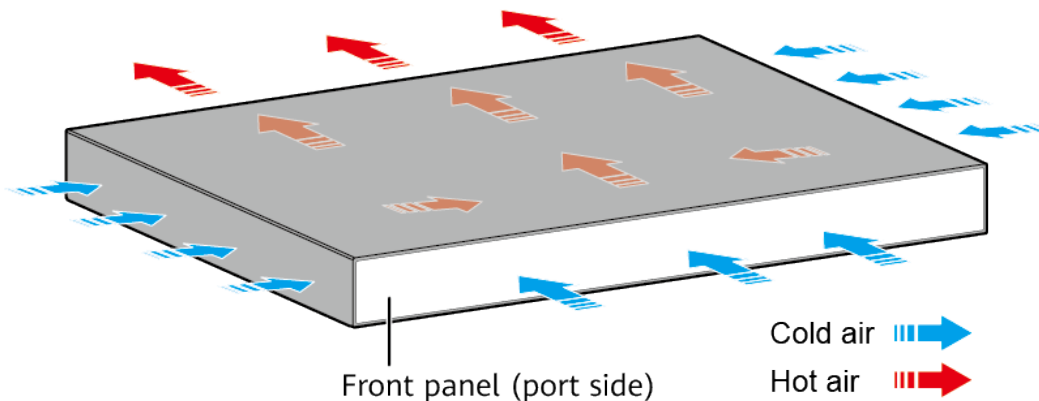
Figure 4-324 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-36C-PWR-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-810 lists technical specifications of the S5720-36C-PWR-EI-AC.

Table 4-810 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	60.72 years when no card is configured; 56.97 years when a 2-port 10GE SFP+ interface card is configured; 55.72 years when a 2-port 10GE RJ45 interface card is configured; 55.82 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.9 kg (21.83 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 78 W 100% PoE loads: 864.3 W (system power consumption: 124.3 W, PoE: 740 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	<ul style="list-style-type: none"> 48.45 W (without card) 56.14 W (with 2*10GE optical card) 60.76 W (with 2*QSFP+ stack card) 64.8 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359573

4.17.6 S5720-36C-PWR-EI-DC

Version Mapping

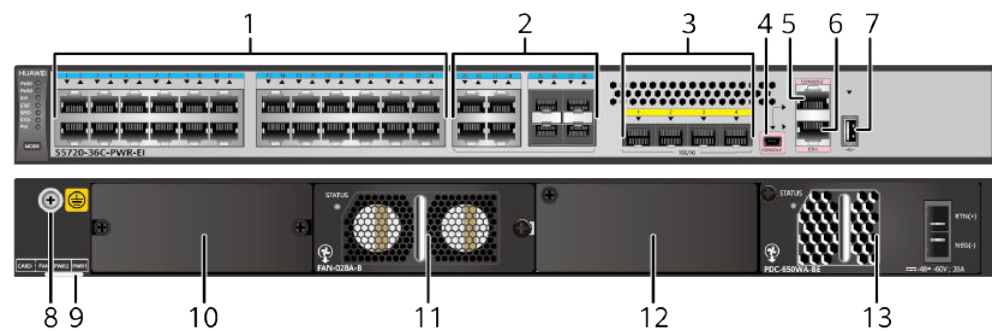
Table 4-811 lists the mapping between the S5720-36C-PWR-EI-DC chassis and software versions.

Table 4-811 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-PWR-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-325 S5720-36C-PWR-EI-DC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> ● FE optical module ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	<p>One mini USB port</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One ETH management port</p>
7	<p>One USB port</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>	10	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)

1 1	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-812](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-812 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-813](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-813 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-814](#).

Table 4-814 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-815** describes the attributes of an ETH management port.

Table 4-815 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not

support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-36C-PWR-EI-DC has the same types of indicators as the S5720-36C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-36C-PWR-EI-DC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 4-816](#) lists its power supply configurations.

Table 4-816 Power supply configurations

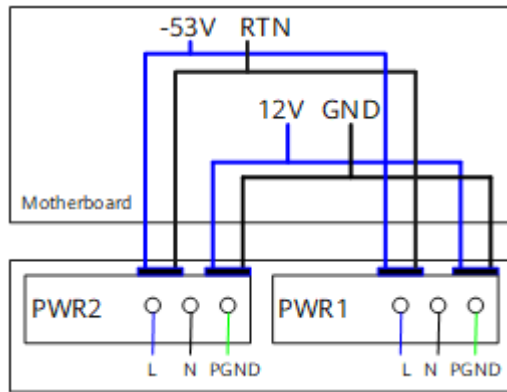
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 28802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-326](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

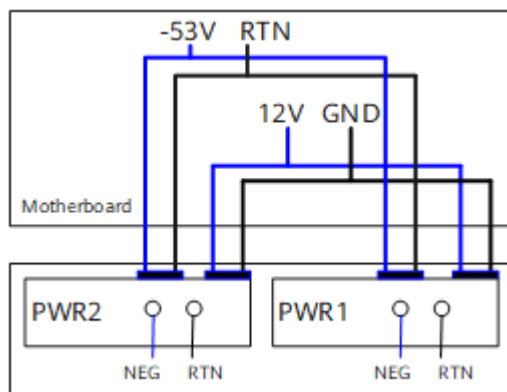
Figure 4-326 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-327 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

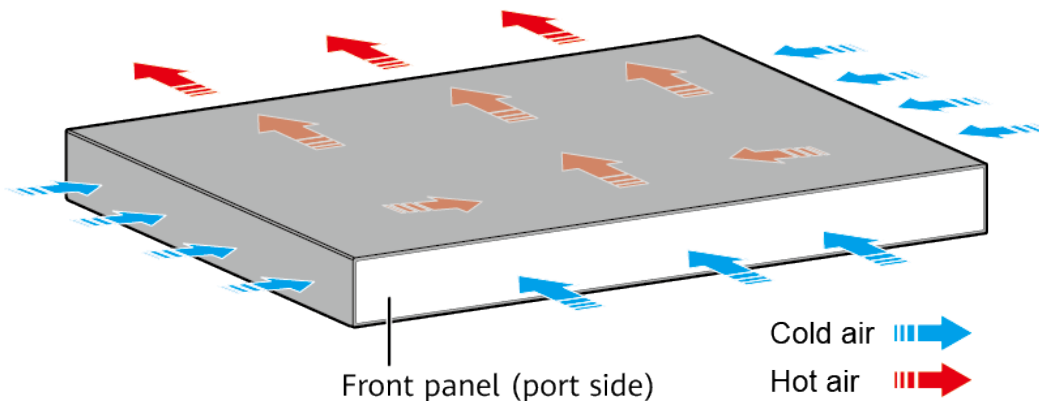
Figure 4-327 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-36C-PWR-EI-DC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-817 lists technical specifications of the S5720-36C-PWR-EI-DC.

Table 4-817 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	60.72 years when no card is configured; 56.97 years when a 2-port 10GE SFP+ interface card is configured; 55.72 years when a 2-port 10GE RJ45 interface card is configured; 55.82 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.9 kg (21.83 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 78 W 100% PoE loads: 864.3 W (system power consumption: 124.3 W, PoE: 740 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	<ul style="list-style-type: none"> 48.45 W (without card) 56.14 W (with 2*10GE optical card) 60.76 W (with 2*QSFP+ stack card) 64.8 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHL

4.17.7 S5720-56C-EI-AC

Version Mapping

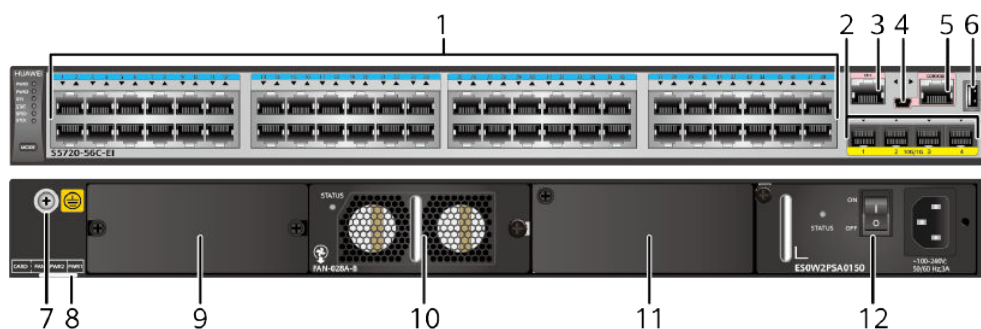
Table 4-818 lists the mapping between the S5720-56C-EI-AC chassis and software versions.

Table 4-818 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-328 S5720-56C-EI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
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3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-819](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-819 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Attribute	Description
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-820](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-820 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-821](#).

Table 4-821 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-822](#) describes the attributes of an ETH management port.

Table 4-822 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

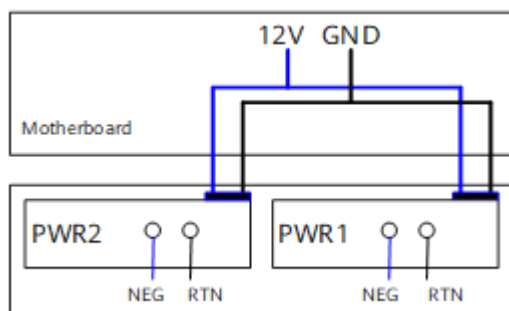
The S5720-56C-EI-AC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-56C-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-329](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-329 Power supply connections of dual DC power modules



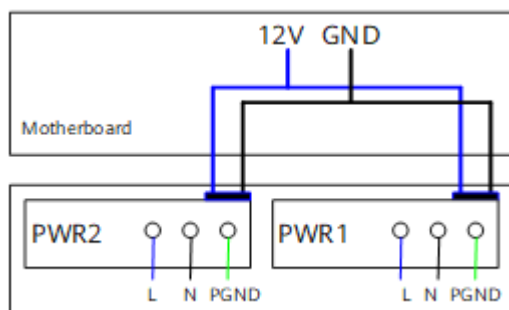
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

[Figure 4-330](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-330 Power supply connections of dual AC power modules



L: Live wire

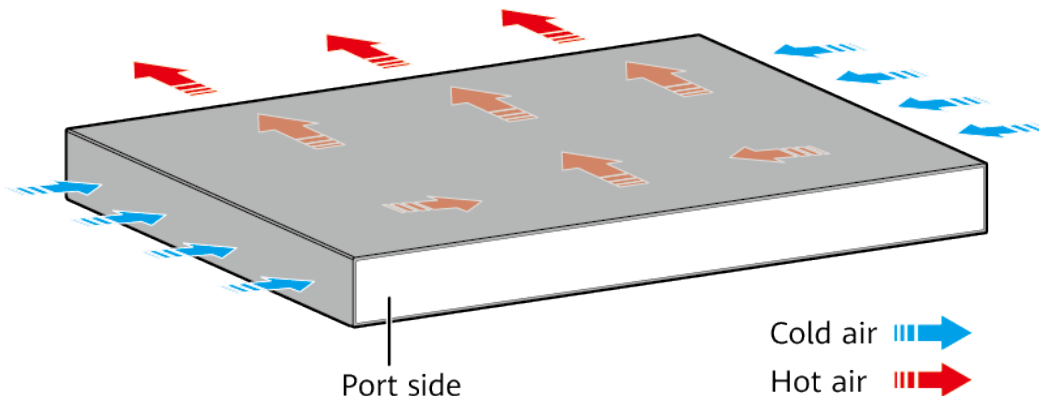
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720-56C-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-823](#) lists technical specifications of the S5720-56C-EI-AC.

Table 4-823 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	71.18 years when no card is configured; 66.07 years when a 2-port 10GE SFP+ interface card is configured; 66.40 years when a 2-port 10GE RJ45 interface card is configured; 64.53 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10 kg (22.05 lb)
Stack ports	<ul style="list-style-type: none"> • Ports on the 2-port 10GE SFP+ rear interface card • Ports on the 2-port 10GE RJ45 rear interface card • Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	86.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 40.45 W (without card) • 47.78 W (with 2*10GE optical card) • 52.87 W (with 2*QSFP+ stack card) • 55.85 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02359504

4.17.8 S5720-56C-EI-DC

Version Mapping

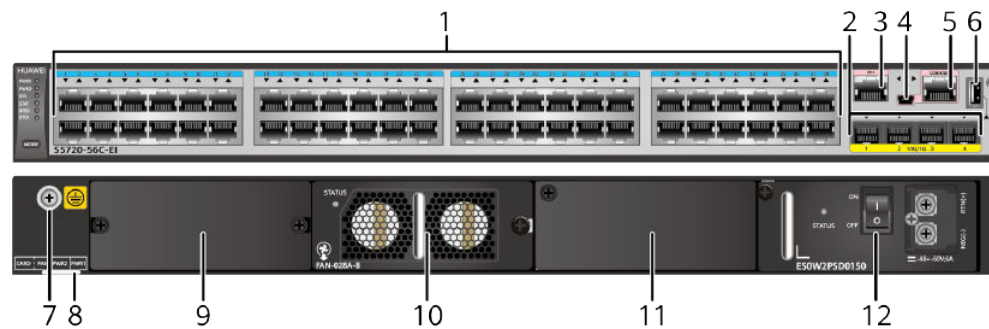
[Table 4-824](#) lists the mapping between the S5720-56C-EI-DC chassis and software versions.

Table 4-824 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-331 S5720-56C-EI-DC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
3	One ETH management port	4	One mini USB port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-825](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-825 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-826](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-826 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-827](#).

Table 4-827 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-828** describes the attributes of an ETH management port.

Table 4-828 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

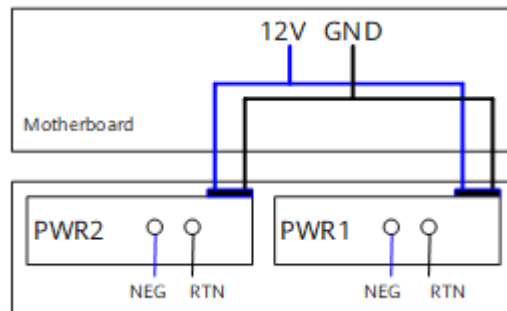
The S5720-56C-EI-DC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-56C-EI-DC does not have a PoE mode indicator. For details, see **Indicator Description**.

Power Supply Configuration

The S5720-56C-EI-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-332 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-332 Power supply connections of dual DC power modules



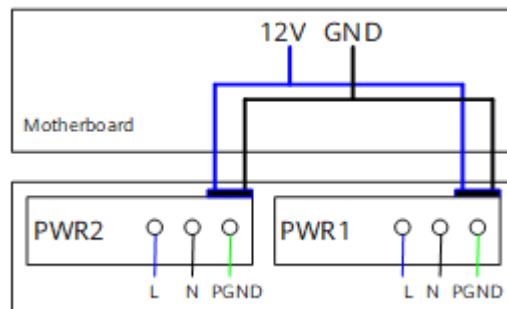
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-333 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-333 Power supply connections of dual AC power modules



L: Live wire

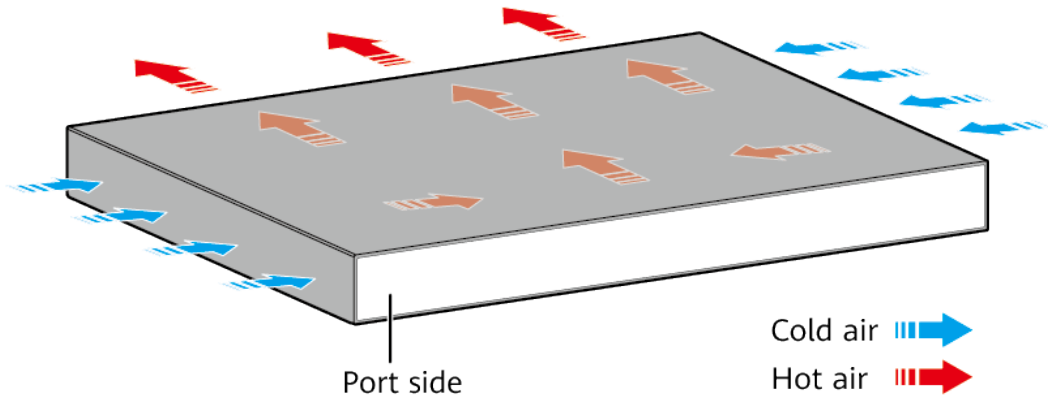
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720-56C-EI-DC has pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-829 lists technical specifications of the S5720-56C-EI-DC.

Table 4-829 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	71.18 years when no card is configured; 66.07 years when a 2-port 10GE SFP+ interface card is configured; 66.40 years when a 2-port 10GE RJ45 interface card is configured; 64.53 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.8 kg (21.61 lb)
Stack ports	<ul style="list-style-type: none"> ● Ports on the 2-port 10GE SFP+ rear interface card ● Ports on the 2-port 10GE RJ45 rear interface card ● Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	86.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	<ul style="list-style-type: none"> ● 40.45 W (without card) ● 47.78 W (with 2*10GE optical card) ● 52.87 W (with 2*QSFP+ stack card) ● 55.85 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHK

4.17.9 S5720-56C-EI-48S-AC

Version Mapping

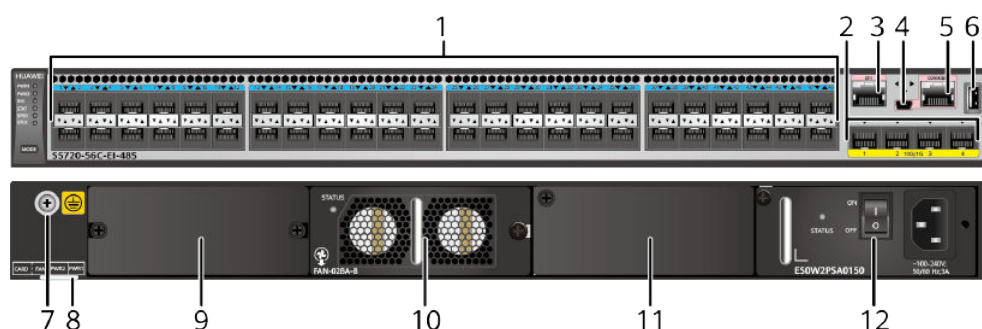
[Table 4-830](#) lists the mapping between the S5720-56C-EI-48S-AC chassis and software versions.

Table 4-830 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-EI-48S-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-334 S5720-56C-EI-48S-AC appearance



1	<p>Forty-eight 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
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3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-831](#) describes the attributes of a 100/1000BASE-X port.

Table 4-831 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-832](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-832 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-833](#).

Table 4-833 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-834** describes the attributes of an ETH management port.

Table 4-834 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

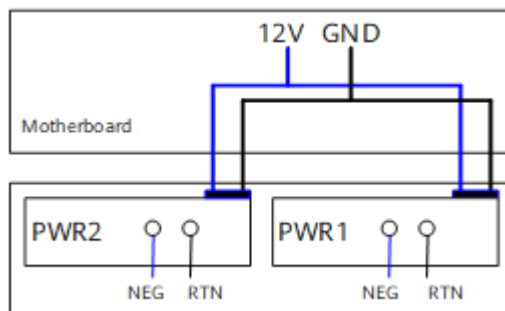
The S5720-56C-EI-48S-AC has the same types of indicators as the S5720-36C-EI-28S-AC. For details, see **Indicator Description**.

Power Supply Configuration

The S5720-56C-EI-48S-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-335 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-335 Power supply connections of dual DC power modules



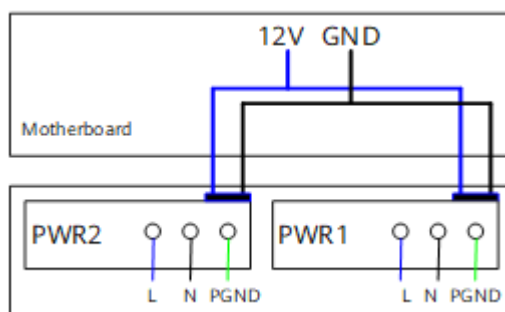
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-336 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-336 Power supply connections of dual AC power modules



L: Live wire

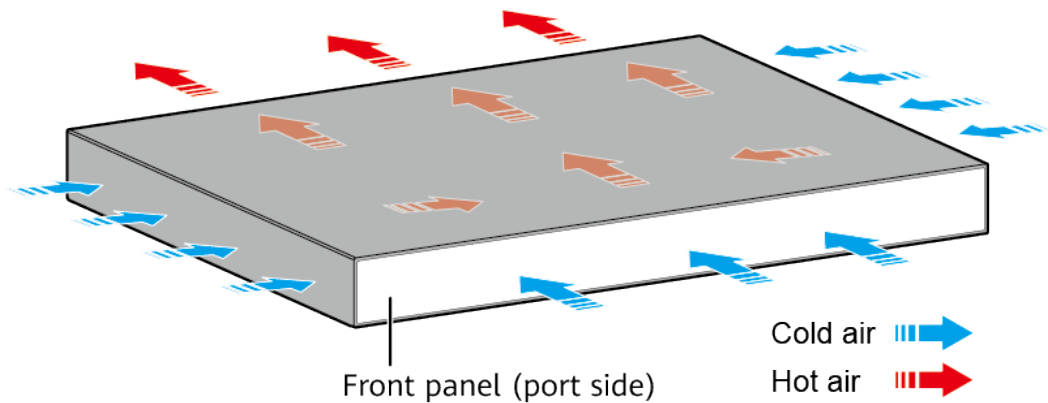
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720-56C-EI-48S-AC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-835 lists technical specifications of the S5720-56C-EI-48S-AC.

Table 4-835 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.91 years when no card is configured; 68.42 years when a 2-port 10GE SFP+ interface card is configured; 66.63 years when a 2-port 10GE RJ45 interface card is configured; 66.77 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)

Item	Description
Weight (with packaging)	10.1 kg (22.27 lb)
Stack ports	<ul style="list-style-type: none"> • Ports on the 2-port 10GE SFP+ rear interface card • Ports on the 2-port 10GE RJ45 rear interface card • Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	104 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 68.82 W (without card) • 76.55 W (with 2*10GE optical card) • 81.23 W (with 2*QSFP+ stack card) • 83.78 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359558

4.17.10 S5720-56C-EI-48S-DC

Version Mapping

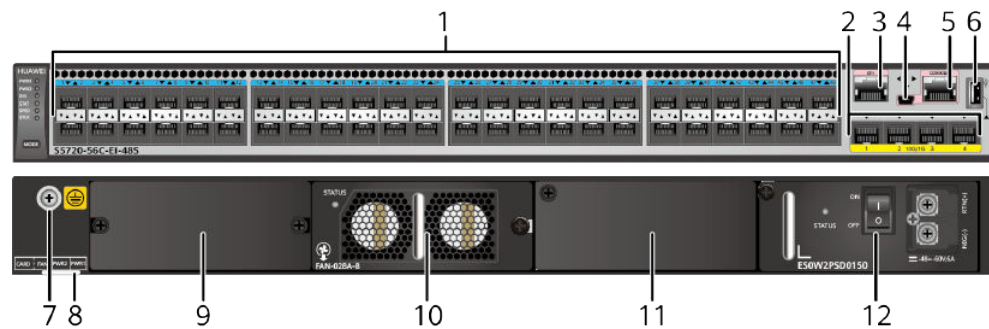
[Table 4-836](#) lists the mapping between the S5720-56C-EI-48S-DC chassis and software versions.

Table 4-836 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-EI-48S-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-337 S5720-56C-EI-48S-DC appearance



1	<p>Forty-eight 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
3	One ETH management port	4	One mini USB port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-837](#) describes the attributes of a 100/1000BASE-X port.

Table 4-837 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z

Attribute	Description
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-838](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-838 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-839](#).

Table 4-839 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-840** describes the attributes of an ETH management port.

Table 4-840 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

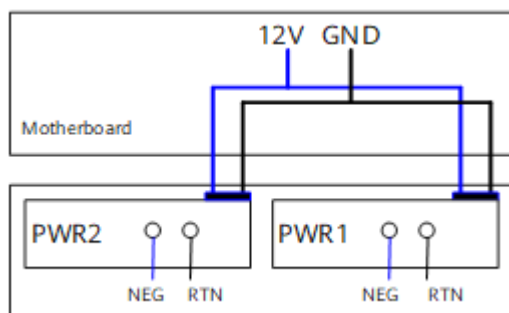
The S5720-56C-EI-48S-DC has the same types of indicators as the S5720-36C-EI-28S-AC. For details, see **Indicator Description**.

Power Supply Configuration

The S5720-56C-EI-48S-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-338 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-338 Power supply connections of dual DC power modules



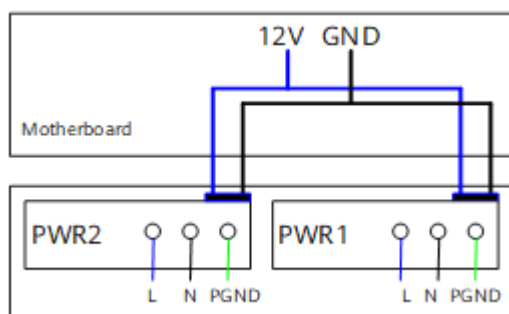
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-339 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-339 Power supply connections of dual AC power modules



L: Live wire

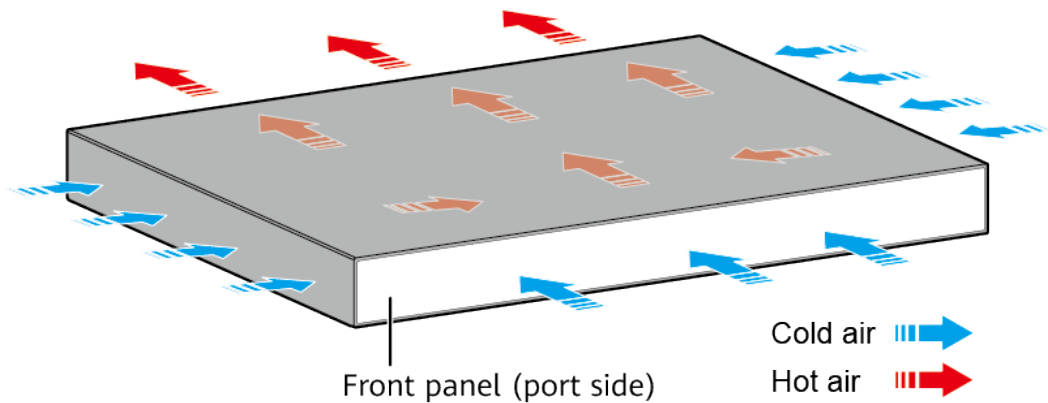
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720-56C-EI-48S-DC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-841 lists technical specifications of the S5720-56C-EI-48S-DC.

Table 4-841 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.91 years when no card is configured; 68.42 years when a 2-port 10GE SFP+ interface card is configured; 66.63 years when a 2-port 10GE RJ45 interface card is configured; 66.77 years when a stack card is configured
Mean time to repair (MTTR)	2
Availability	> 0.99999
Service port surge protection	Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)

Item	Description
Weight (with packaging)	9.9 kg (21.83 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	104 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	<ul style="list-style-type: none"> 68.82 W (without card) 76.55 W (with 2*10GE optical card) 81.23 W (with 2*QSFP+ stack card) 83.78 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHP

4.17.11 S5720-56C-PWR-EI-AC

Version Mapping

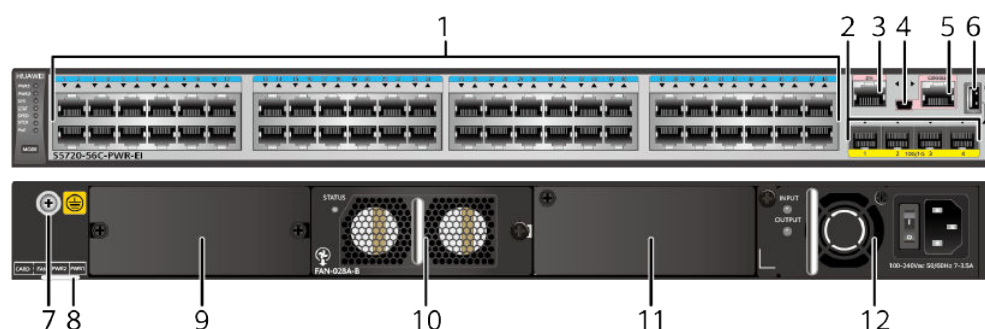
[Table 4-842](#) lists the mapping between the S5720-56C-PWR-EI-AC chassis and software versions.

Table 4-842 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-PWR-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-340 S5720-56C-PWR-EI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
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3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-843](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-843 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Attribute	Description
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-844](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-844 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-845](#).

Table 4-845 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-846](#) describes the attributes of an ETH management port.

Table 4-846 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-56C-PWR-EI-AC has the same types of indicators as the S5720-36C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-PWR-EI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 4-847](#) lists its power supply configurations.

Table 4-847 Power supply configurations

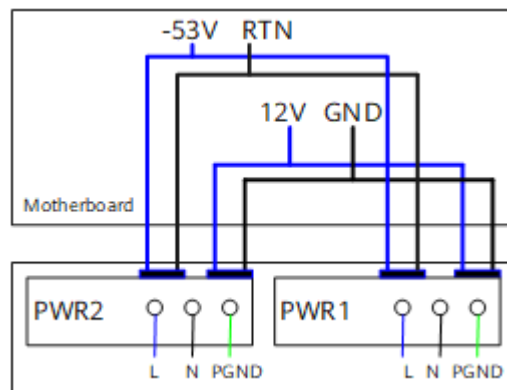
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-341](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 4-341 Power supply by dual AC PoE power modules



L: live wire

N: neutral wire

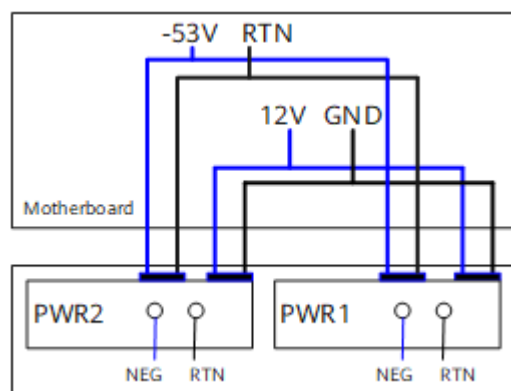
PGND: protection
ground wire

GND: 12 V
reference ground

RTN: -53 V
reference ground

Figure 4-342 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

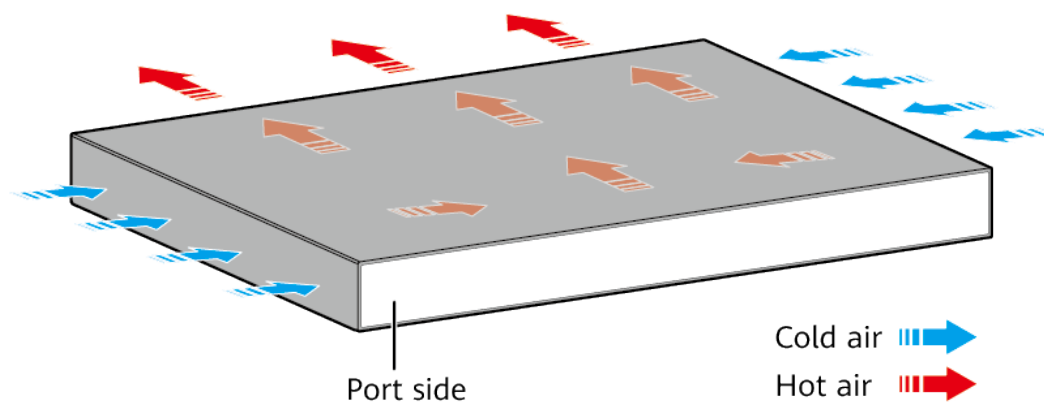
Figure 4-342 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-56C-PWR-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-848 lists technical specifications of the S5720-56C-PWR-EI-AC.

Table 4-848 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	51.34 years when no card is configured; 48.63 years when a 2-port 10GE SFP+ interface card is configured; 47.71 years when a 2-port 10GE RJ45 interface card is configured; 47.79 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10.4 kg (22.93 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 91.6 W • 100% PoE loads: 889.4 W (system power consumption: 149.4 W, PoE: 740 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 53.5 W (without card) • 61.12 W (with 2*10GE optical card) • 65.85 W (with 2*QSFP+ stack card) • 69.3 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 53.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359576

4.17.12 S5720-56C-PWR-EI-DC

Version Mapping

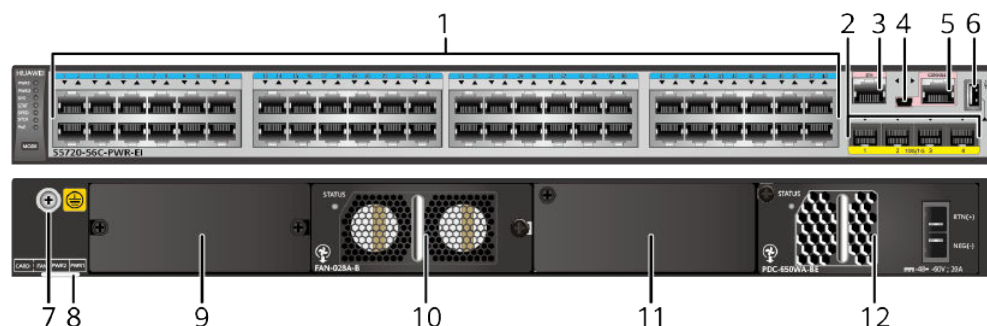
[Table 4-849](#) lists the mapping between the S5720-56C-PWR-EI-DC chassis and software versions.

Table 4-849 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-PWR-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-343 S5720-56C-PWR-EI-DC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
3	One ETH management port	4	One mini USB port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>

9	<p>Rear card slot</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	1 0	<p>Fan slot</p> <p>NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module</p>
1 1	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	1 2	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-850](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-850 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-851](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-851 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-852](#).

Table 4-852 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-853](#) describes the attributes of an ETH management port.

Table 4-853 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-56C-PWR-EI-DC has the same types of indicators as the S5720-36C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-PWR-EI-DC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 4-854](#) lists its power supply configurations.

Table 4-854 Power supply configurations

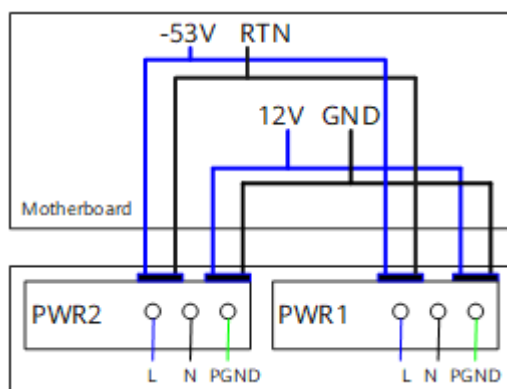
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-344 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

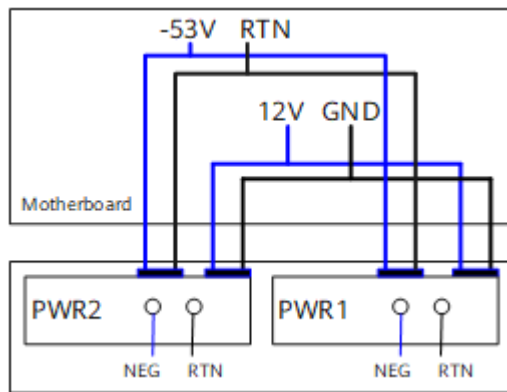
Figure 4-344 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-345 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 4-345 Power supply connections of dual DC PoE power modules



NEG: negative wire

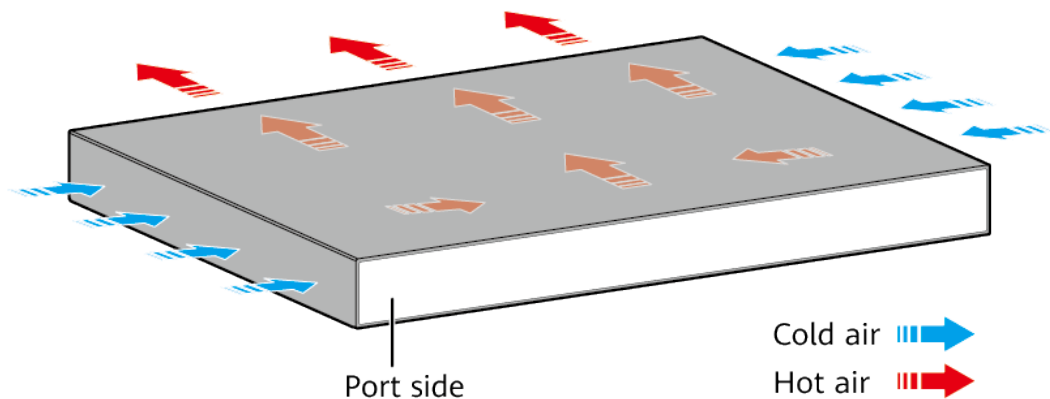
RTN: positive wire

GND: 12 V reference ground

RTN: -53 V reference ground

Heat Dissipation

The S5720-56C-PWR-EI-DC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-855 lists technical specifications of the S5720-56C-PWR-EI-DC.

Table 4-855 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	51.34 years when no card is configured; 48.63 years when a 2-port 10GE SFP+ interface card is configured; 47.71 years when a 2-port 10GE RJ45 interface card is configured; 47.79 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10.3 kg (22.71 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 98 W 100% PoE loads: 913 W (system power consumption: 173 W, PoE: 740 W)

Item	Description
<p>Typical power consumption (30% of traffic load)</p> <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 56.68 W (without card) • 63.63 W (with 2*10GE optical card) • 68.56 W (with 2*QSFP+ stack card) • 72.61 W (with 2*10GE electrical card)
<p>Operating temperature</p>	<p>0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
<p>Short-term operating temperature</p>	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
<p>Storage temperature</p>	<p>-40°C to +70°C (-40°F to +158°F)</p>
<p>Noise under normal temperature (27°C, sound power)</p>	<p>< 53.7 dB(A)</p>
<p>Relative humidity</p>	<p>5% to 95%, noncondensing</p>
<p>Operating altitude</p>	<p>0-5000 m (0-16404 ft.)</p>

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHM

4.17.13 S5720-56C-PWR-EI-AC1

Version Mapping

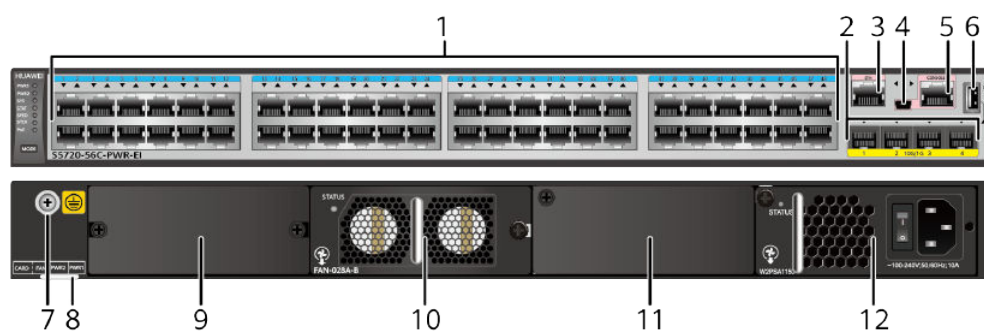
Table 4-856 lists the mapping between the S5720-56C-PWR-EI-AC1 chassis and software versions.

Table 4-856 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-PWR-EI-AC1	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-346 S5720-56C-PWR-EI-AC1 appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
3	One ETH management port	4	One mini USB port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>

9	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	<p>Fan slot</p> <p>NOTE</p> <p>Applicable fan module: 7.2 FAN-028A-B Fan Module</p>
11	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	12	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-857](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-857 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-858](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-858 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-859](#).

Table 4-859 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-860](#) describes the attributes of an ETH management port.

Table 4-860 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-56C-PWR-EI-AC1 has the same types of indicators as the S5720-36C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-PWR-EI-AC1 is a PoE switch. It has two power module slots and uses 1150 W AC PoE power modules or 1000 W AC PoE power modules (applicable in V200R013C00 and later versions). A 1150 W AC PoE power module and a 1000 W AC PoE power module can be used together. [Table 4-861](#) lists its power supply configurations.

Table 4-861 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 29 802.3at (30 W per port): 14
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48

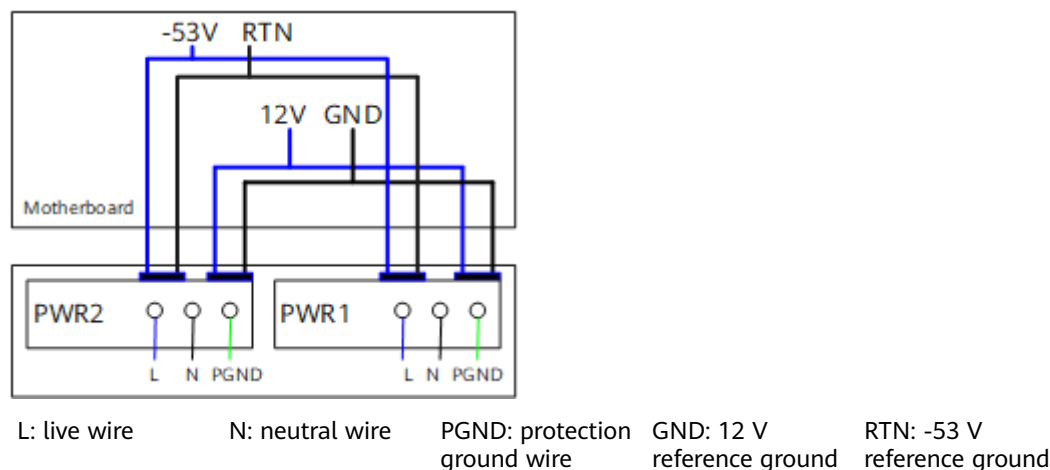
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

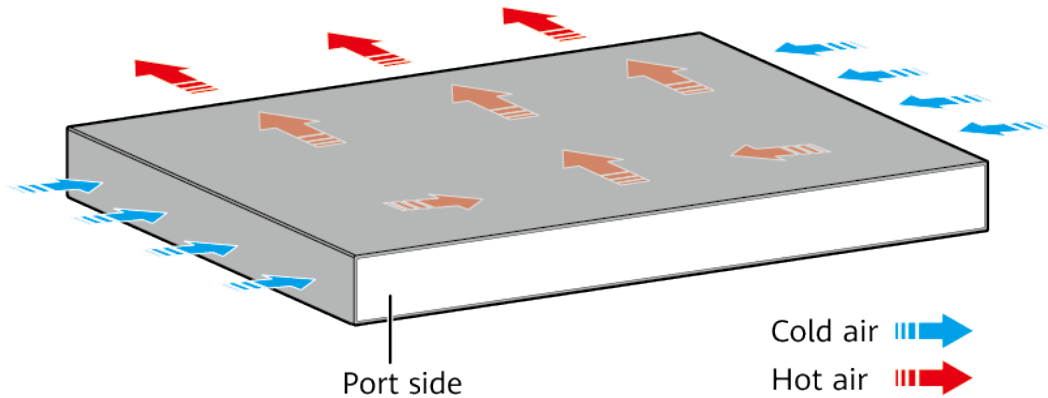
Figure 4-347 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 4-347 Power supply by dual AC PoE power modules



Heat Dissipation

The S5720-56C-PWR-EI-AC1 uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-862](#) lists technical specifications of the S5720-56C-PWR-EI-AC1.

Table 4-862 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	51.34 years when no card is configured; 48.63 years when a 2-port 10GE SFP+ interface card is configured; 47.71 years when a 2-port 10GE RJ45 interface card is configured; 47.79 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 510.5 mm (1.75 in. x 17.4 in. x 20.1 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 541.1 mm (1.75 in. x 17.4 in. x 21.3 in.)
Weight (with packaging)	10.9 kg (24.03 lb)
Stack ports	<ul style="list-style-type: none"> ● Ports on the 2-port 10GE SFP+ rear interface card ● Ports on the 2-port 10GE RJ45 rear interface card ● Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Not providing the PoE function: 91.6 W ● 100% PoE loads: 1564.8 W (system power consumption: 124.8 W, PoE: 1440 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	<ul style="list-style-type: none"> ● 53.5 W (without subcard) ● 61.12 W (with 2*10G optical subcards) ● 65.85 W (2*QSFP+ stack cards) ● 69.3 W (with 2*10G electrical subcards)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 61.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359578

4.17.14 S5720-36PC-EI-AC

Version Mapping

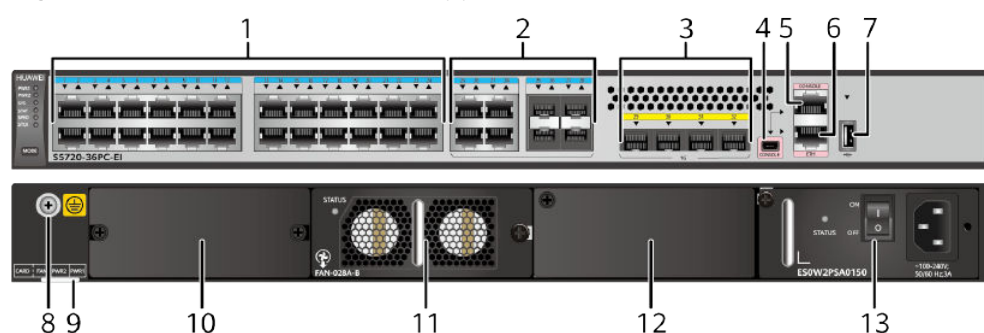
[Table 4-863](#) lists the mapping between the S5720-36PC-EI-AC chassis and software versions.

Table 4-863 Version mapping

Series		Model	Software Version
S5720-EI	S5720-PC-EI	S5720-36PC-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-348 S5720-36PC-EI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) 	4	One mini USB port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One ETH management port
7	One USB port	8	Ground screw NOTE It is used with a ground cable .
9	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	10	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)
11	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module	12	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
13	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-864](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-864 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

A 1000BASE-X Ethernet optical port sends and receives service data at 1000 Mbit/s. [Table 4-865](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-865 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3z
Working mode	1000 Mbit/s

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-866](#).

Table 4-866 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-867](#) describes the attributes of an ETH management port.

Table 4-867 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-36PC-EI-AC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-36PC-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-36PC-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-349](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-349 Power supply connections of dual DC power modules

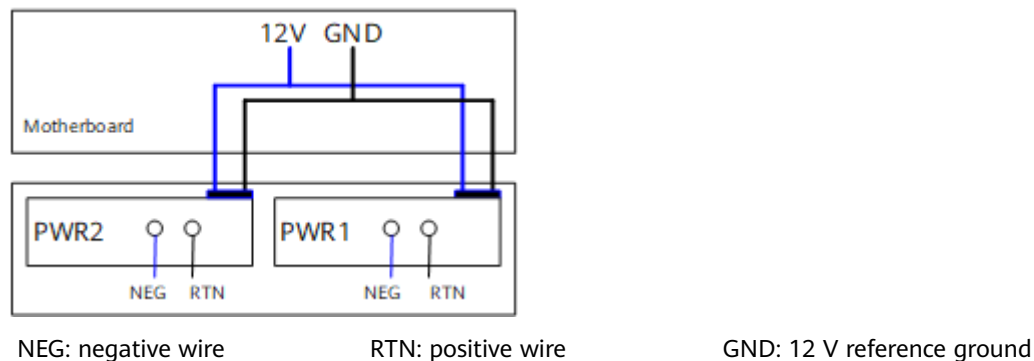
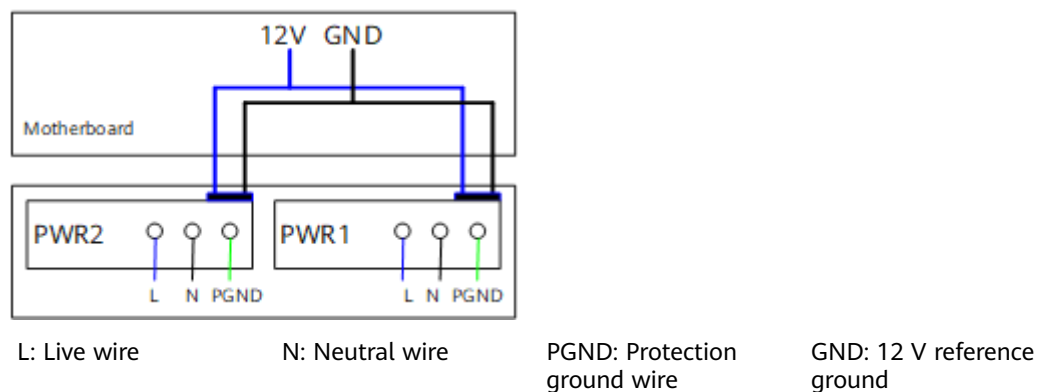


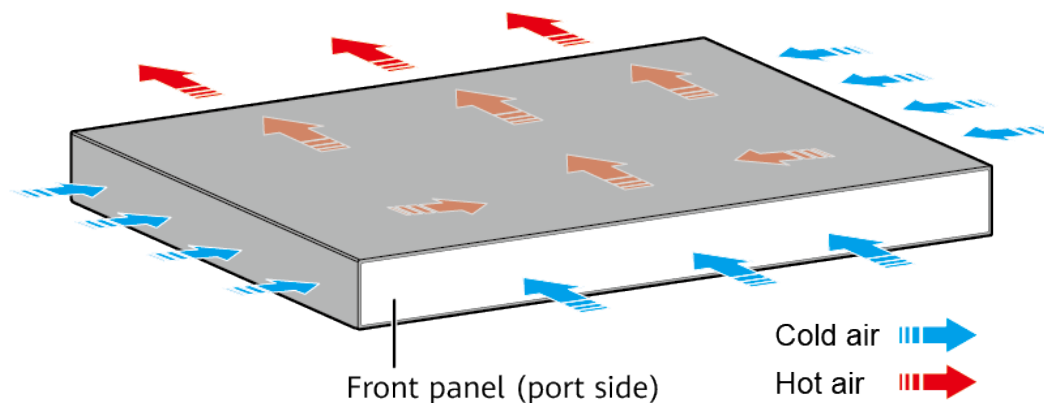
Figure 4-350 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-350 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-36PC-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-868 lists technical specifications of the S5720-36PC-EI-AC.

Table 4-868 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	80.05 years when no card is configured; 73.65 years when a 2-port 10GE SFP+ interface card is configured; 71.58 years when a 2-port 10GE RJ45 interface card is configured; 71.74 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.8 kg (21.61 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	74.6 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	<ul style="list-style-type: none">• 39.5 W (without card)• 47.28 W (with 2*10GE optical card)• 52.17 W (with 2*QSFP+ stack card)• 55.14 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350BDQ

4.17.15 S5720-56PC-EI-AC

Version Mapping

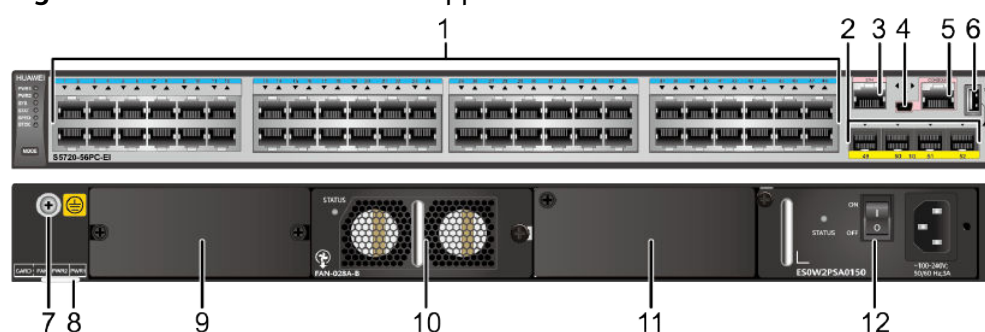
[Table 4-869](#) lists the mapping between the S5720-56PC-EI-AC chassis and software versions.

Table 4-869 Version mapping

Series		Model	Software Version
S5720-EI	S5720-PC-EI	S5720-56PC-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-351 S5720-56PC-EI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported)
3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.

9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	1 0	Fan slot NOTE Applicable fan module: 7.2 FAN-028A-B Fan Module
1 1	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module 	1 2	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-870](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-870 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

A 1000BASE-X Ethernet optical port sends and receives service data at 1000 Mbit/s. [Table 4-871](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-871 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	1000 Mbit/s

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-872](#).

Table 4-872 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-873](#) describes the attributes of an ETH management port.

Table 4-873 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-56PC-EI-AC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-56PC-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56PC-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-352](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-352 Power supply connections of dual DC power modules

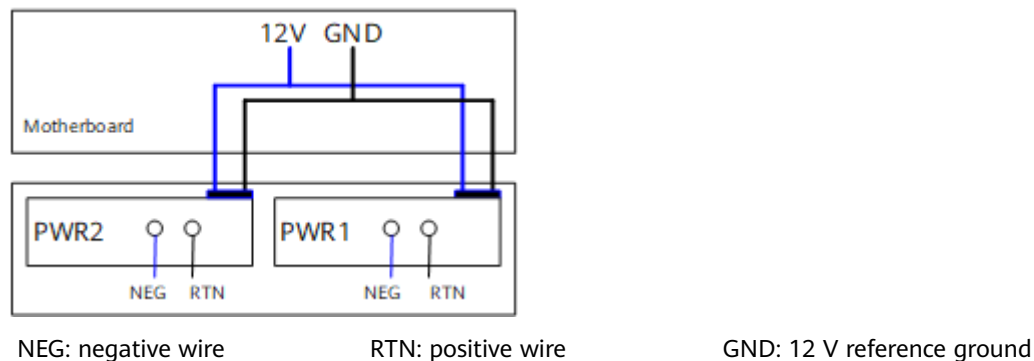
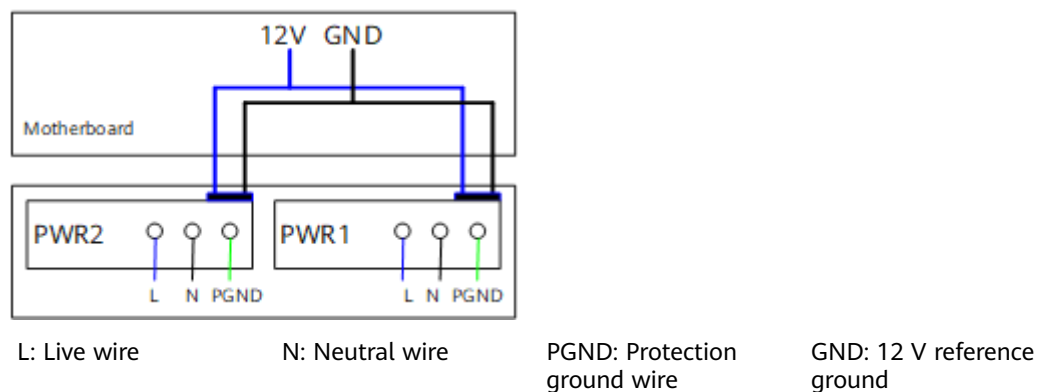


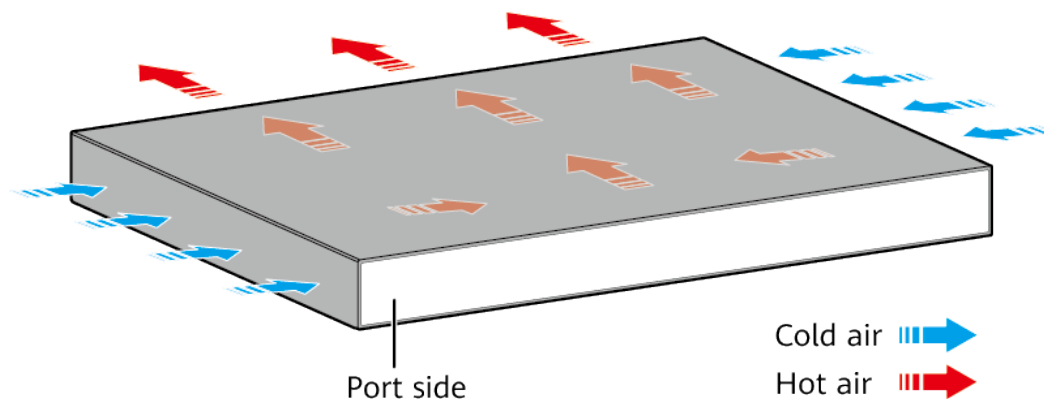
Figure 4-353 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-353 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-56PC-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-874 lists technical specifications of the S5720-56PC-EI-AC.

Table 4-874 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	71.18 years when no card is configured; 66.07 years when a 2-port 10GE SFP+ interface card is configured; 66.40 years when a 2-port 10GE RJ45 interface card is configured; 64.53 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10 kg (22.05 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	85.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 40.45 W (without card) • 47.78 W (with 2*10GE optical card) • 52.87 W (with 2*QSFP+ stack card) • 55.85 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350BDV

4.17.16 S5720-32X-EI-AC

Version Mapping

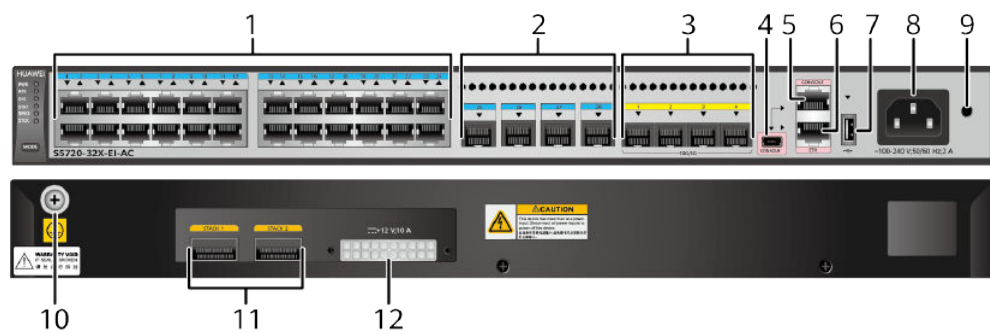
[Table 4-875](#) lists the mapping between the S5720-32X-EI-AC chassis and software versions.

Table 4-875 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-32X-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-354 S5720-32X-EI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	One mini USB port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One ETH management port
7	One USB port	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>
9	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	1 0	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
1 1	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	1 2	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-876](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-876 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-877](#) describes the attributes of a 100/1000BASE-X port.

Table 4-877 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-878](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-878 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 4-879](#) describes the attributes of a QSFP+ stack optical port.

Table 4-879 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-880](#).

Table 4-880 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-881](#) describes the attributes of an ETH management port.

Table 4-881 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

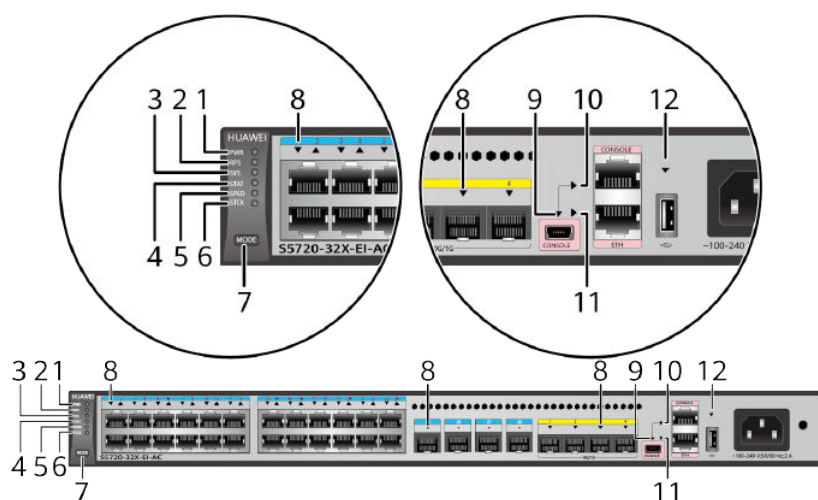
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-355 Indicators on the S5720-32X-EI-AC



NOTE

The S5720-EI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720-EI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-882 Description of indicators on the switch

No.	Indicator/ Button	Name	Color	Status	Description
1	PWR	Power module	-	Off	The switch is powered off.

No.	Indicator/ Button	Name	Color	Status	Description
		indicator	Green	Steady on	The system power supply is normal.
			Yellow	Steady on	The built-in power module has failed, and the switch is receiving power from a redundant power supply (RPS).
2	RPS	RPS indicator	-	Off	The switch is not connected to an RPS.
			Green	Steady on	The RPS is in cold standby state.
			Green	Blinking	The RPS is supplying power to another switch.
			Yellow	Blinking	The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator/ Button	Name	Color	Status	Description
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>

No.	Indicator/ Button	Name	Color	Status	Description
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-883 and Table 4-884 .		
9	-	Mini USB indicator	-	Off	The Mini USB port is disabled, and the console port is enabled.
			Green	Steady on	The Mini USB port is enabled. When the Mini USB indicator is steady green, the console indicator is off.
10	-	Console indicator	-	Off	The console port is disabled, and the Mini USB port is enabled.
			Green	Steady on	The console port is enabled (default state). When the console indicator is steady green, the Mini USB indicator is off.
11	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
12	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.

No.	Indicator/ Button	Name	Color	Status	Description
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-883 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green	Blinking	<p>The switch is the master switch in a stack.</p> <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 4-884 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	<p>10M/100M/1000M port: The port is operating at 10/100 Mbit/s.</p> <p>100M/1000M port: The port is operating at 100 Mbit/s.</p>
	Green and yellow	Blinking	<p>10M/100M/1000M port: The port is operating at 1000 Mbit/s.</p> <p>100M/1000M port: The port is operating at 1000 Mbit/s.</p>
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	<p>The switch is not the master switch in a stack.</p> <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

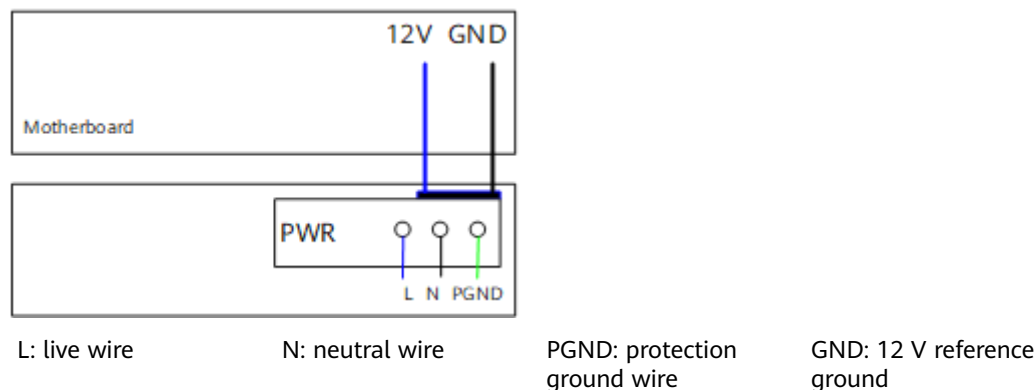
Display Mode	Color	Status	Description
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-32X-EI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

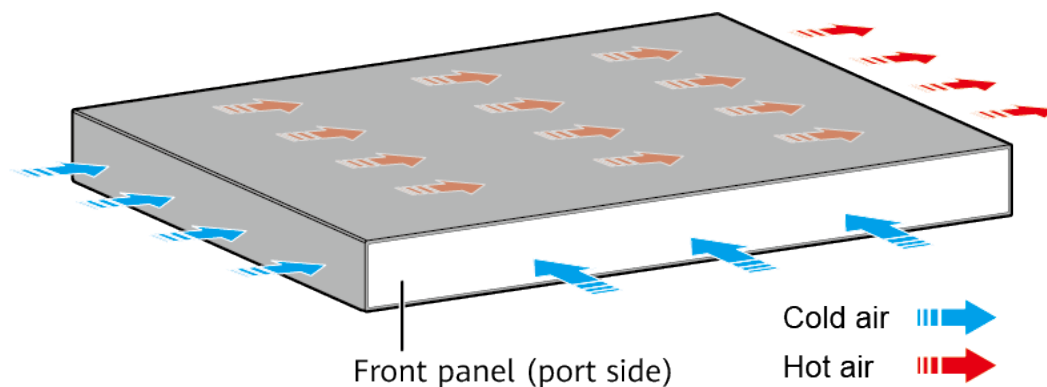
Figure 4-356 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-356 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-32X-EI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-885 lists technical specifications of the S5720-32X-EI-AC.

Table 4-885 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	80.32 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	51.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	40.85 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359586

4.17.17 S5720-32X-EI-DC

Version Mapping

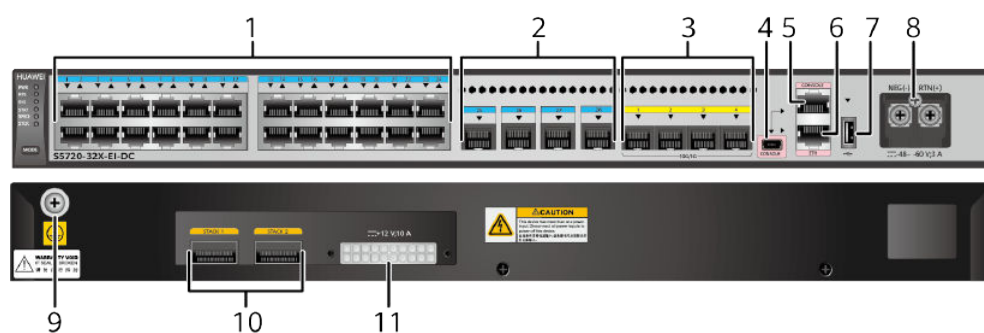
Table 4-886 lists the mapping between the S5720-32X-EI-DC chassis and software versions.

Table 4-886 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-32X-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-357 S5720-32X-EI-DC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	One mini USB port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One ETH management port
7	One USB port	8	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables
11	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-887](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-887 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-888](#) describes the attributes of a 100/1000BASE-X port.

Table 4-888 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-889](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-889 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 4-890](#) describes the attributes of a QSFP+ stack optical port.

Table 4-890 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-891](#).

Table 4-891 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-892](#) describes the attributes of an ETH management port.

Table 4-892 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

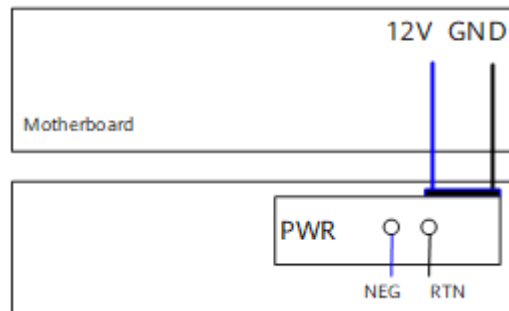
The S5720-32X-EI-DC has the same types of indicators as the S5720-32X-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-32X-EI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 4-358 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-358 Power supply by a single DC power module



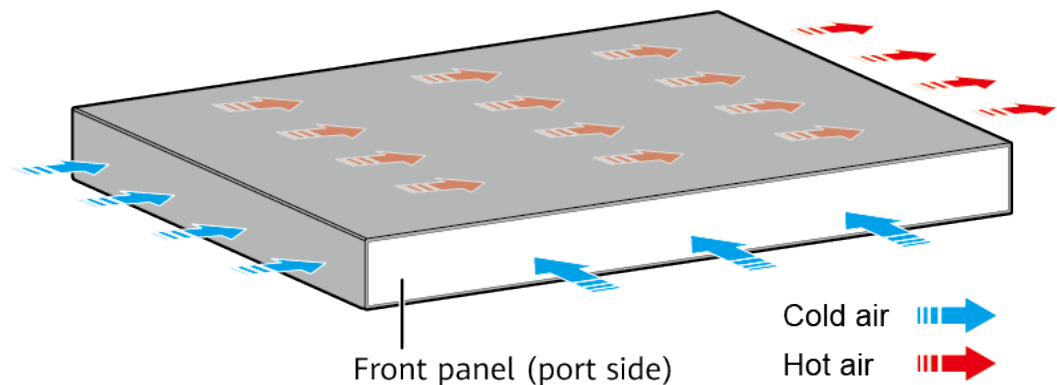
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5720-32X-EI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-893 lists technical specifications of the S5720-32X-EI-DC.

Table 4-893 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	80.32 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.3 kg (9.48 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	51.9 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	40.85 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHC

4.17.18 S5720-32X-EI-24S-AC

Version Mapping

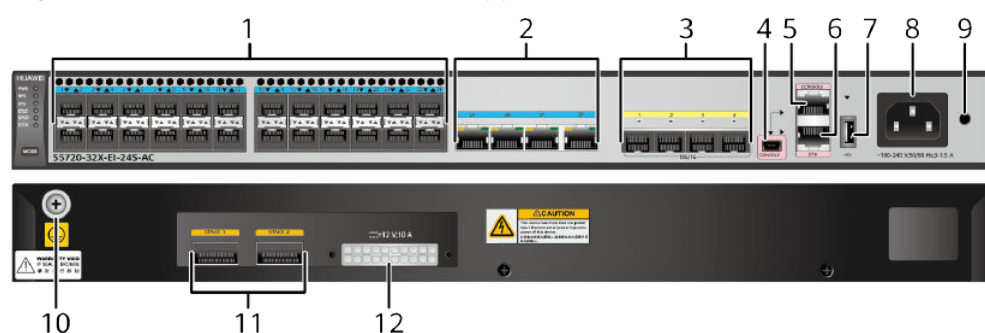
Table 4-894 lists the mapping between the S5720-32X-EI-24S-AC chassis and software versions.

Table 4-894 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-32X-EI-24S-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-359 S5720-32X-EI-24S-AC appearance



1	Twenty-four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Four 10/100/1000BASE-T ports
---	---	---	------------------------------

3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	One mini USB port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One ETH management port
7	One USB port	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>
9	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	10	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
11	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	12	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-895](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-895 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-896](#) describes the attributes of a 100/1000BASE-X port.

Table 4-896 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-897](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-897 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 4-898](#) describes the attributes of a QSFP+ stack optical port.

Table 4-898 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-899](#).

Table 4-899 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-900](#) describes the attributes of an ETH management port.

Table 4-900 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-32X-EI-24S-AC has 24 downlink optical port indicators, whereas the S5720-32X-EI-AC has 24 downlink electrical port indicators. Symbols and

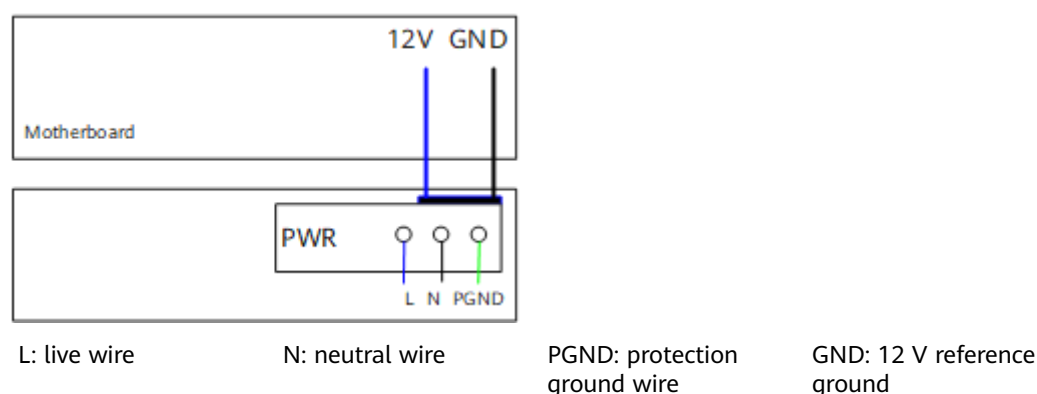
meanings of other indicators on the two switch models are the same. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-32X-EI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

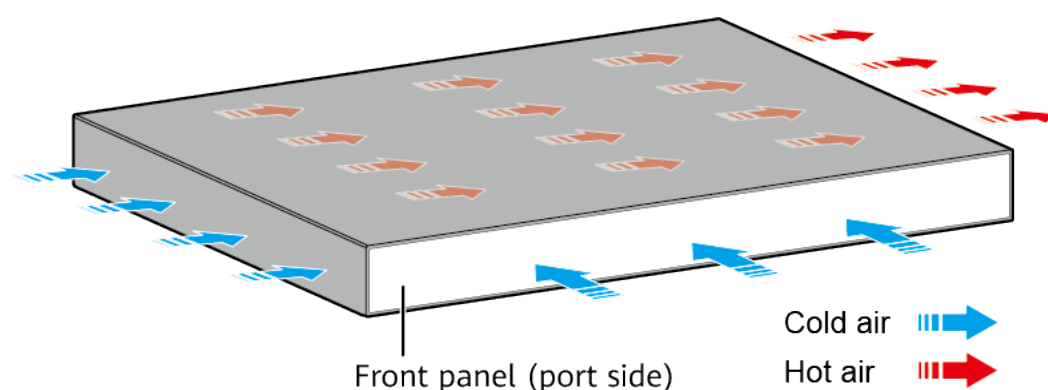
Figure 4-360 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-360 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-32X-EI-24S-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-901 lists technical specifications of the S5720-32X-EI-24S-AC.

Table 4-901 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	82.54 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	58.9 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	55.46 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359579

4.17.19 S5720-32X-EI-24S-DC

Version Mapping

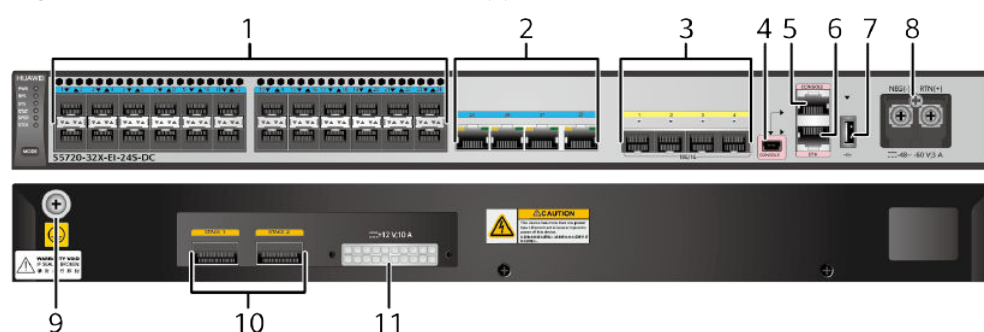
Table 4-902 lists the mapping between the S5720-32X-EI-24S-DC chassis and software versions.

Table 4-902 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-32X-EI-24S-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-361 S5720-32X-EI-24S-DC appearance



1	Twenty-four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Four 10/100/1000BASE-T ports
---	---	---	------------------------------

3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One ETH management port
7	One USB port	8	DC power terminal NOTE It is used together with a DC Power Cable .
9	Ground screw NOTE It is used with a ground cable .	10	Two QSFP+ stack optical ports Applicable modules and cables: <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables
11	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-903](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-903 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-904](#) describes the attributes of a 100/1000BASE-X port.

Table 4-904 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-905](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-905 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 4-906](#) describes the attributes of a QSFP+ stack optical port.

Table 4-906 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-907](#).

Table 4-907 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-908](#) describes the attributes of an ETH management port.

Table 4-908 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-32X-EI-24S-DC has 24 downlink optical port indicators, whereas the S5720-32X-EI-AC has 24 downlink electrical port indicators. Symbols and

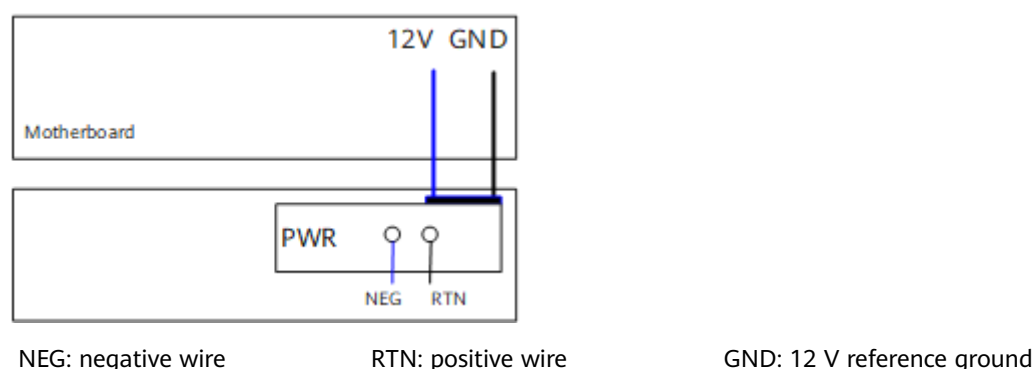
meanings of other indicators on the two switch models are the same. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-32X-EI-24S-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

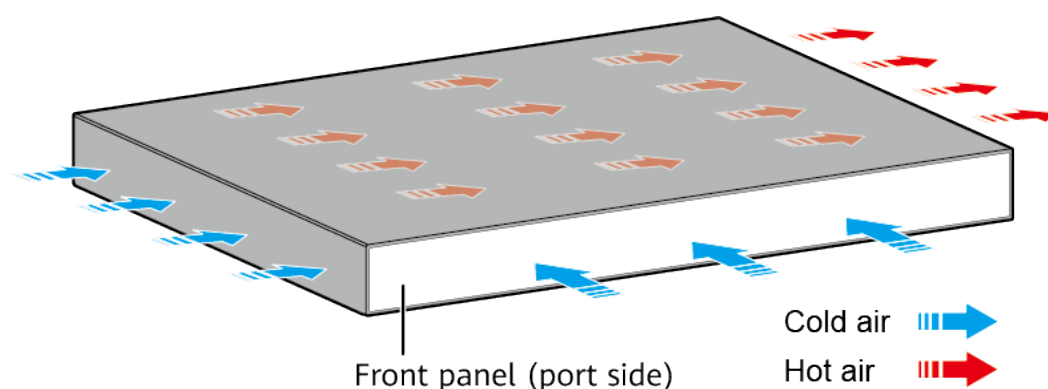
[Figure 4-362](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-362 Power supply by a single DC power module



Heat Dissipation

The S5720-32X-EI-24S-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-909](#) lists technical specifications of the S5720-32X-EI-24S-DC.

Table 4-909 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	82.54 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.2 kg (9.26 lb)
Stack ports	<ul style="list-style-type: none">• Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	58.9 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	55.46 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHE

4.17.20 S5720-50X-EI-AC

Version Mapping

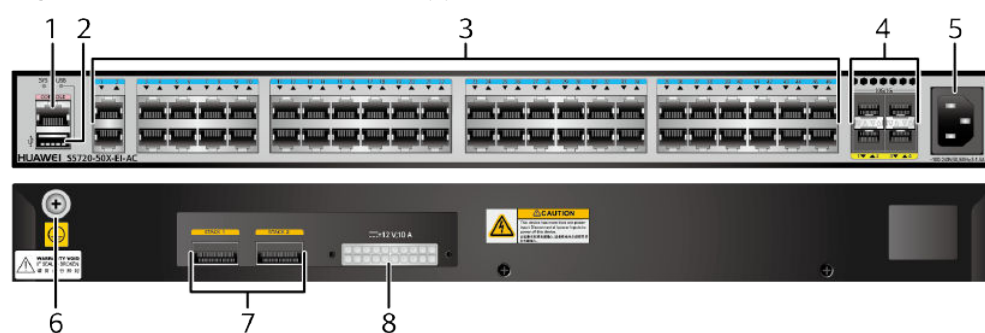
Table 4-910 lists the mapping between the S5720-50X-EI-AC chassis and software versions.

Table 4-910 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-50X-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-363 S5720-50X-EI-AC appearance



1	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	2	One USB port
---	--	---	--------------

3	Forty-six 10/100/1000BASE-T ports	4	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
5	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	8	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-911** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-911 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-912](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-912 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 4-913](#) describes the attributes of a QSFP+ stack optical port.

Table 4-913 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-914](#).

Table 4-914 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-364 Indicators on the S5720-50X-EI-AC

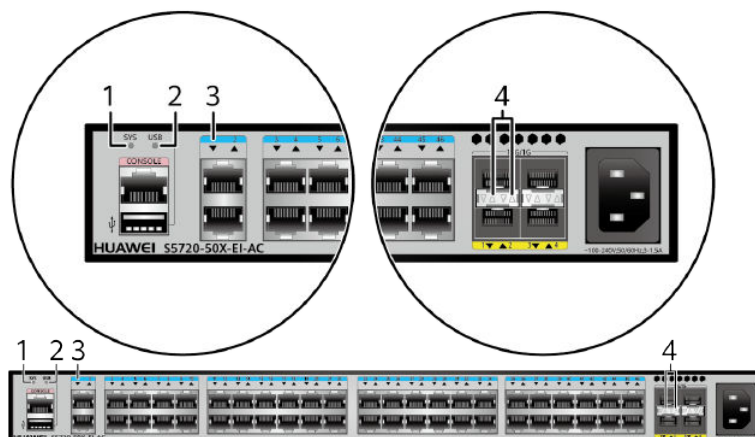


Table 4-915 Description of indicators on the switch

No.	Indicator/ Button	Name	Color	Status	Description
1	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
2	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.
3	-	Service port indicator (one indicator for each port)	-	Off	The port is not connected or has been shut down.
			Green	Steady on	The port is connected.
			Green	Blinking	The port is sending or receiving data.

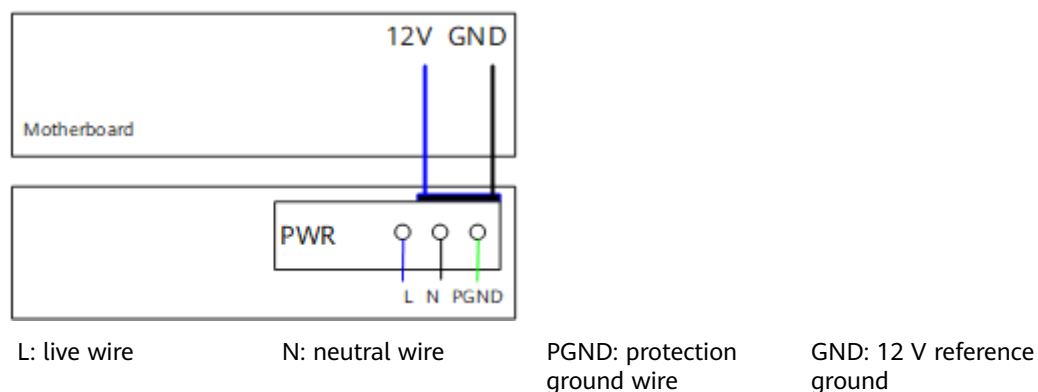
No.	Indicator/ Button	Name	Color	Status	Description
4	-	Service port indicator (two indicators for each port)	-	Off	The port is not connected or has been shut down.
			Green	Steady on	The port is connected.
			Yellow	Blinking	The port is sending or receiving data.

Power Supply Configuration

The S5720-50X-EI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

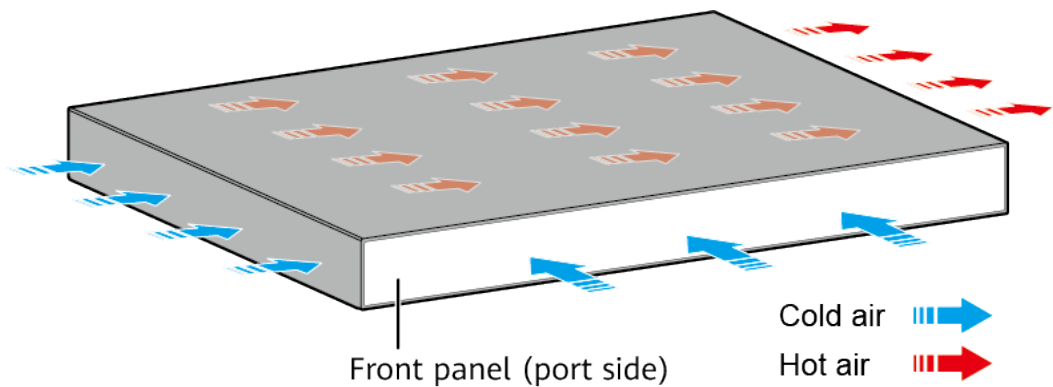
Figure 4-365 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-365 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-50X-EI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-916 lists technical specifications of the S5720-50X-EI-AC.

Table 4-916 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	74.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 229.9 mm (1.72 in. x 17.4 in. x 9.05 in.)
Weight (with packaging)	4.9 kg (10.81 lb)

Item	Description
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	55.3 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	47.45 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359592

4.17.21 S5720-50X-EI-DC

Version Mapping

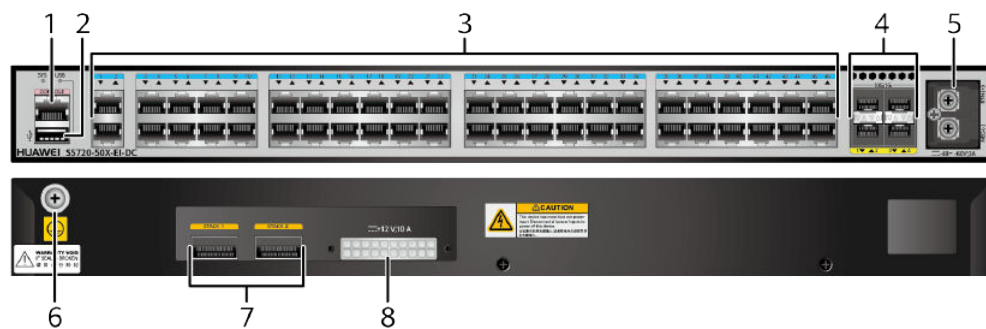
[Table 4-917](#) lists the mapping between the S5720-50X-EI-DC chassis and software versions.

Table 4-917 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-50X-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-366 S5720-50X-EI-DC appearance



1	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	2	One USB port
---	--	---	--------------

3	Forty-six 10/100/1000BASE-T ports	4	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
5	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	8	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 4-918](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-918 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-919](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-919 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 4-920](#) describes the attributes of a QSFP+ stack optical port.

Table 4-920 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-921](#).

Table 4-921 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

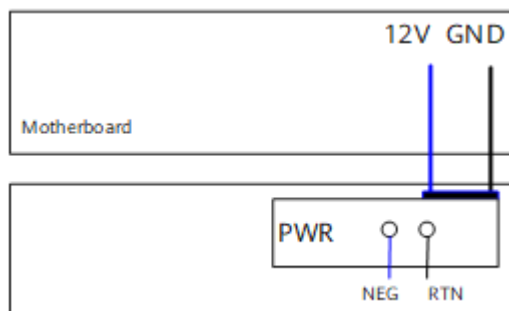
The S5720-50X-EI-DC has the same types of indicators as the S5720-50X-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-50X-EI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 4-367](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-367 Power supply by a single DC power module



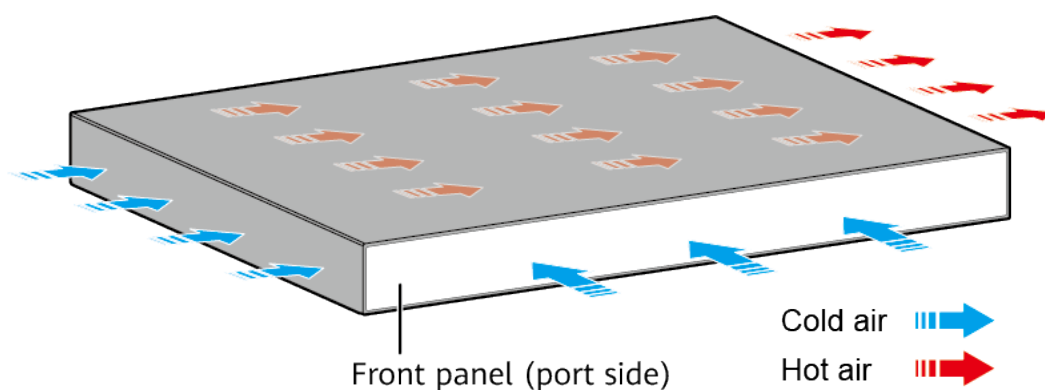
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5720-50X-EI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-922](#) lists technical specifications of the S5720-50X-EI-DC.

Table 4-922 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	74.31 years

Item	Description
Mean time to repair (MTTR)	2
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 229.9 mm (1.72 in. x 17.4 in. x 9.05 in.)
Weight (with packaging)	4.7 kg (10.36 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	55.3 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	47.45 W

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHD

4.17.22 S5720-50X-EI-46S-AC

Version Mapping

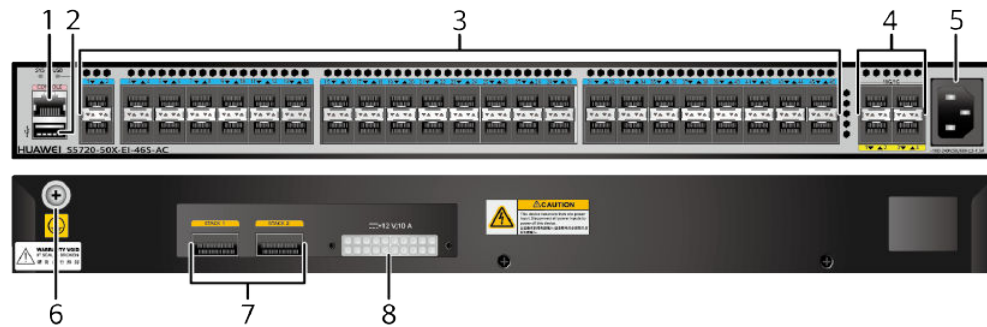
[Table 4-923](#) lists the mapping between the S5720-50X-EI-46S-AC chassis and software versions.

Table 4-923 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-50X-EI-46S-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-368 S5720-50X-EI-46S-AC appearance



1	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	2	<p>One USB port</p>
3	<p>Forty-six 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	4	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
5	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>

7	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	8	<p>RPS socket</p> <p>NOTE</p> <p>It is used with an RPS cable, which is not hot swappable.</p>
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Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-924](#) describes the attributes of a 100/1000BASE-X port.

Table 4-924 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-925](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-925 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 4-926](#) describes the attributes of a QSFP+ stack optical port.

Table 4-926 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-927](#).

Table 4-927 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

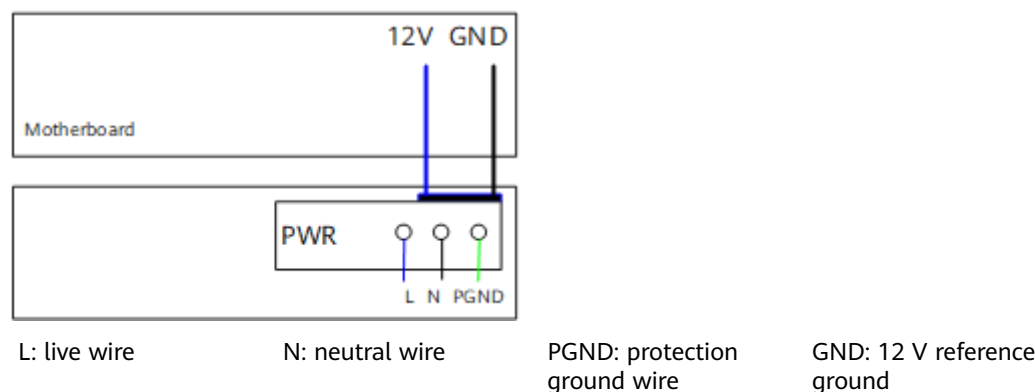
The S5720-50X-EI-46S-AC has 46 downlink optical port indicators, whereas the S5720-50X-EI-AC has 46 downlink electrical port indicators. Symbols and meanings of other indicators on the two switch models are the same. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-50X-EI-46S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

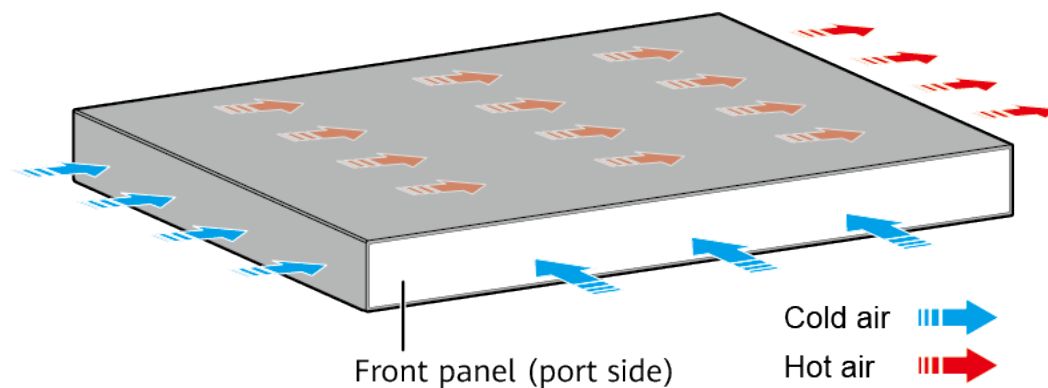
[Figure 4-369](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-369 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-50X-EI-46S-AC has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-928 lists technical specifications of the S5720-50X-EI-46S-AC.

Table 4-928 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	67.59 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	NA
Power supply surge protection	±6 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 229.9 mm (1.72 in. x 17.4 in. x 9.05 in.)
Weight (with packaging)	5 kg (11.03 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	81.5 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	73.75 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02359583

4.17.23 S5720-50X-EI-46S-DC

Version Mapping

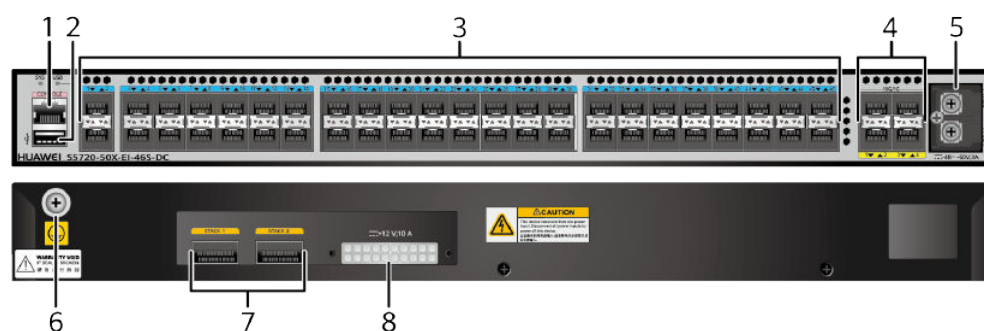
Table 4-929 lists the mapping between the S5720-50X-EI-46S-DC chassis and software versions.

Table 4-929 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-50X-EI-46S-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-370 S5720-50X-EI-46S-DC appearance



1	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	2	One USB port
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3	<p>Forty-six 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	4	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
5	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	8	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-930](#) describes the attributes of a 100/1000BASE-X port.

Table 4-930 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-931](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-931 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 4-932](#) describes the attributes of a QSFP+ stack optical port.

Table 4-932 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-933](#).

Table 4-933 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

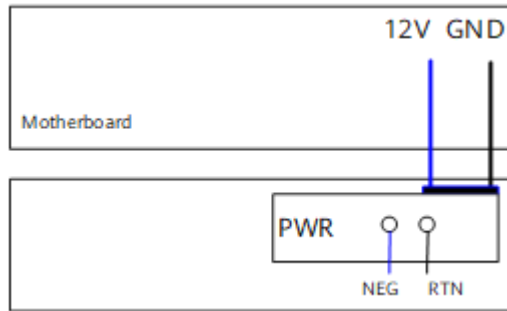
The S5720-50X-EI-46S-DC has 46 downlink optical port indicators, whereas the S5720-50X-EI-AC has 46 downlink electrical port indicators. Symbols and meanings of other indicators on the two switch models are the same. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-50X-EI-46S-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 4-371](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 4-371 Power supply by a single DC power module



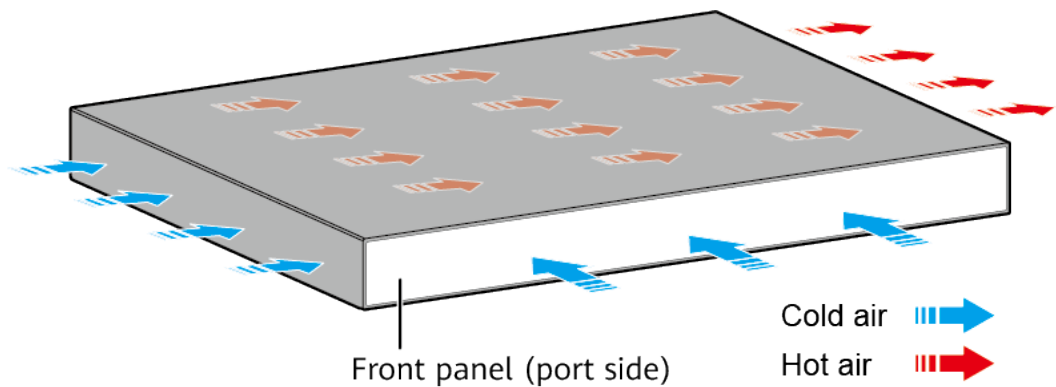
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5720-50X-EI-46S-DC has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-934](#) lists technical specifications of the S5720-50X-EI-46S-DC.

Table 4-934 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	67.59 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	NA
Power supply surge protection	±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.8 kg (10.59 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	81.5 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	73.75 W

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHF

4.17.24 S5720-52X-EI-AC

Version Mapping

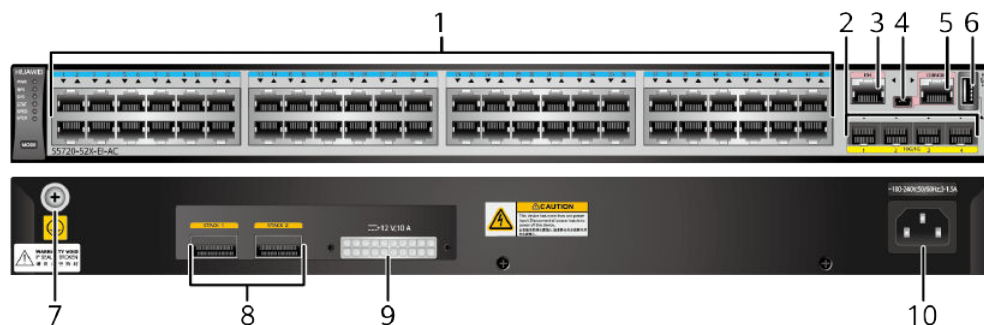
[Table 4-935](#) lists the mapping between the S5720-52X-EI-AC chassis and software versions.

Table 4-935 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-52X-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-372 S5720-52X-EI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port

7	Ground screw NOTE It is used with a ground cable .	8	Two QSFP+ stack optical ports Applicable modules and cables: <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables
9	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	10	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-936](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-936 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-937](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-937 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 4-938](#) describes the attributes of a QSFP+ stack optical port.

Table 4-938 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-939](#).

Table 4-939 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-940** describes the attributes of an ETH management port.

Table 4-940 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

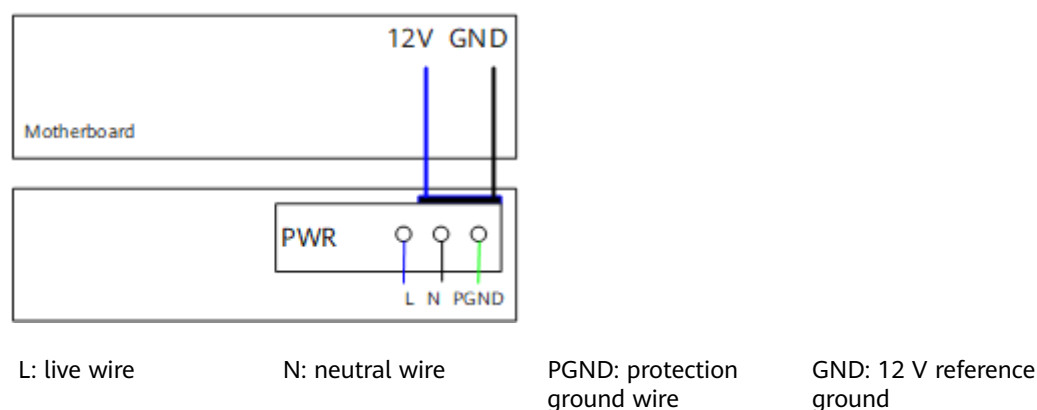
The S5720-52X-EI-AC has the same types of indicators as the S5720-32X-EI-AC. For details, see **Indicator Description**.

Power Supply Configuration

The S5720-52X-EI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

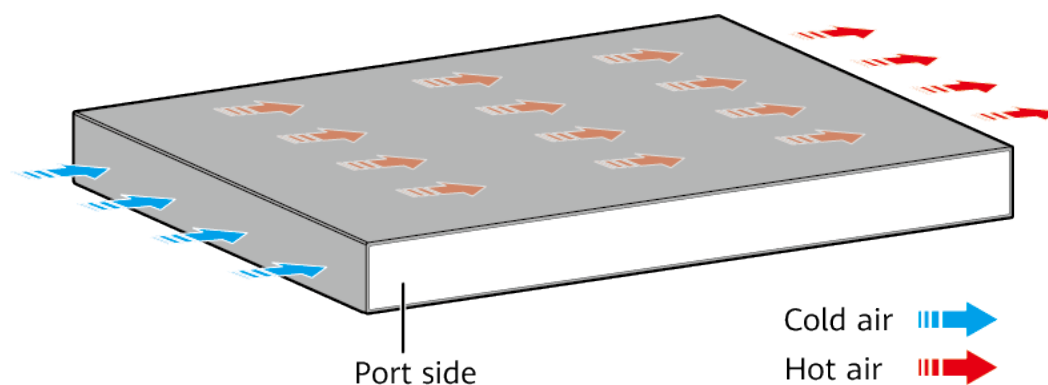
Figure 4-373 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-373 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-52X-EI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-941 lists technical specifications of the S5720-52X-EI-AC.

Table 4-941 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.12 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.7 kg (10.36 lb)
Stack ports	<ul style="list-style-type: none">• Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	61.5 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	52.25 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02359589

4.17.25 S5720-32P-EI-AC

Version Mapping

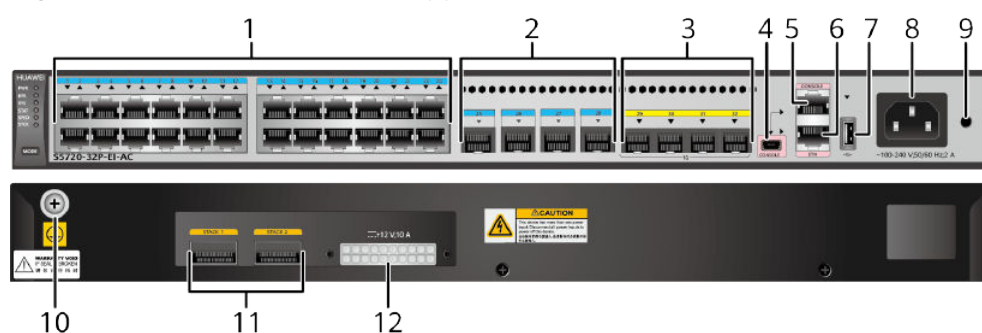
[Table 4-942](#) lists the mapping between the S5720-32P-EI-AC chassis and software versions.

Table 4-942 Version mapping

Series		Model	Software Version
S5720-EI	S5720-P-EI	S5720-32P-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-374 S5720-32P-EI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) 	4	One mini USB port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One ETH management port
7	One USB port	8	AC socket NOTE It is used with an AC power cable .
9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	10	Ground screw NOTE It is used with a ground cable .
11	Two QSFP+ stack optical ports Applicable modules and cables: <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	12	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-943](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-943 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-944](#) describes the attributes of a 100/1000BASE-X port.

Table 4-944 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

1000BASE-X port

A 1000BASE-X Ethernet optical port sends and receives service data at 1000 Mbit/s. [Table 4-945](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-945 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	1000 Mbit/s

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 4-946](#) describes the attributes of a QSFP+ stack optical port.

Table 4-946 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-947](#).

Table 4-947 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-948](#) describes the attributes of an ETH management port.

Table 4-948 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3

Attribute	Description
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

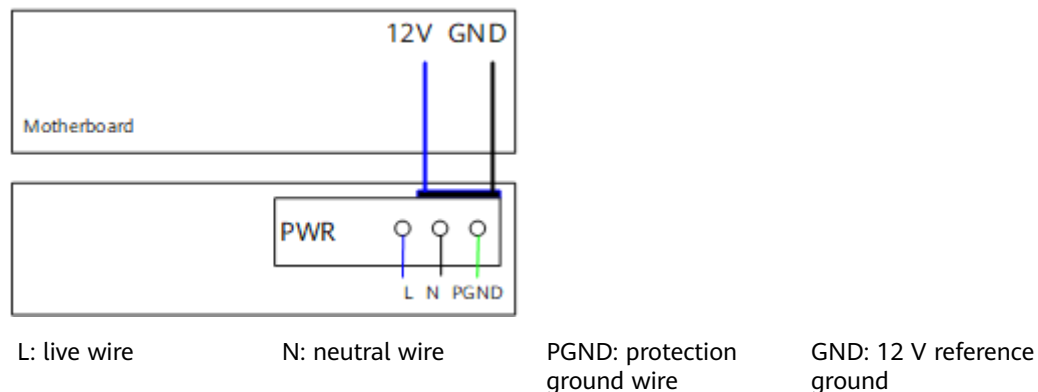
The S5720-32P-EI-AC has the same types of indicators as the S5720-32X-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-32P-EI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

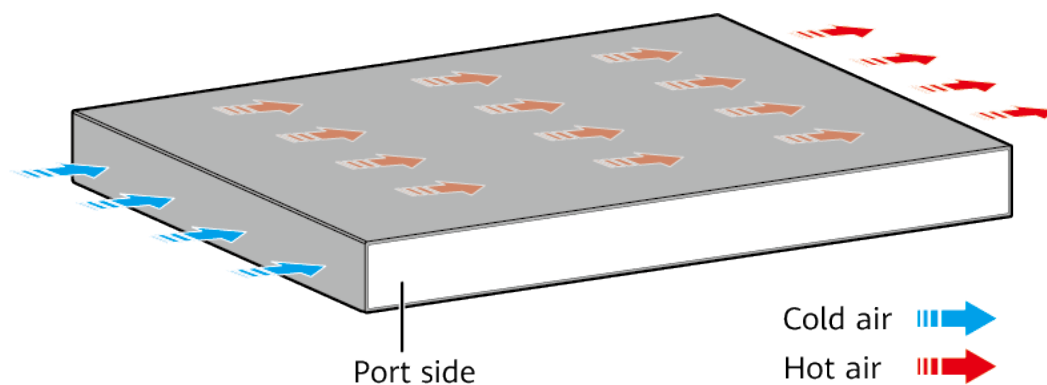
Figure 4-375 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-375 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-32P-EI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-949 lists technical specifications of the S5720-32P-EI-AC.

Table 4-949 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	80.32 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	50.7 W
Typical power consumption (30% of traffic load)	39.75 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350BDY

4.17.26 S5720-52P-EI-AC

Version Mapping

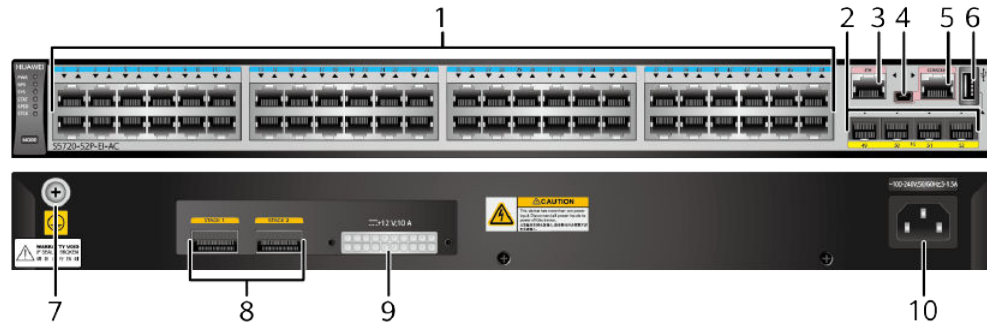
Table 4-950 lists the mapping between the S5720-52P-EI-AC chassis and software versions.

Table 4-950 Version mapping

Series		Model	Software Version
S5720-EI	S5720-P-EI	S5720-52P-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 4-376 S5720-52P-EI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported)
3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	Two QSFP+ stack optical ports Applicable modules and cables: <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables
9	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	10	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-951](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-951 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

A 1000BASE-X Ethernet optical port sends and receives service data at 1000 Mbit/s. [Table 4-952](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-952 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	1000 Mbit/s

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 4-953](#) describes the attributes of a QSFP+ stack optical port.

Table 4-953 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-954](#).

Table 4-954 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-955](#) describes the attributes of an ETH management port.

Table 4-955 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

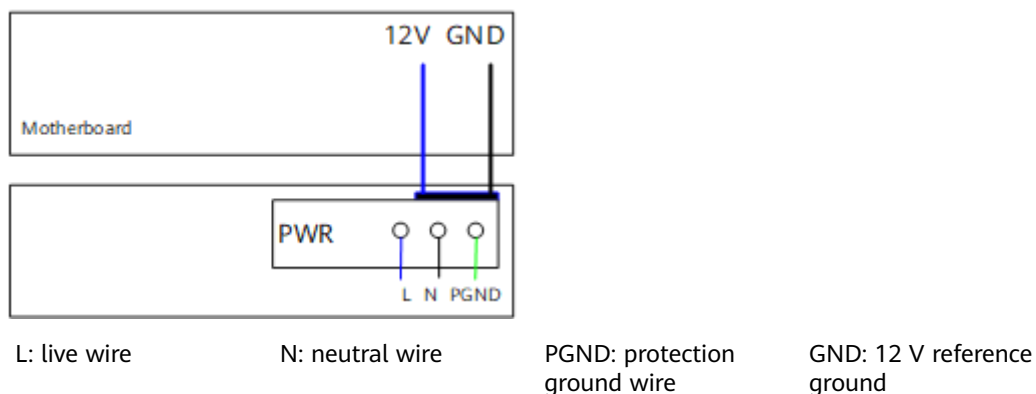
The S5720-52P-EI-AC has the same types of indicators as the S5720-32X-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52P-EI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

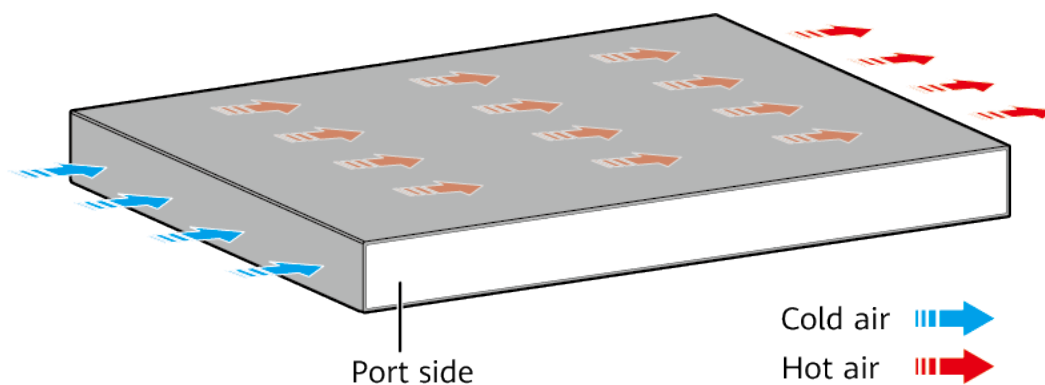
[Figure 4-377](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 4-377 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-52P-EI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-956 lists technical specifications of the S5720-52P-EI-AC.

Table 4-956 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.12 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.7 kg (10.36 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	60.3 W
Typical power consumption (30% of traffic load)	51.14 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350BEC

4.18 S5730S-EI

4.18.1 S5730S-48C-EI-AC

Version Mapping

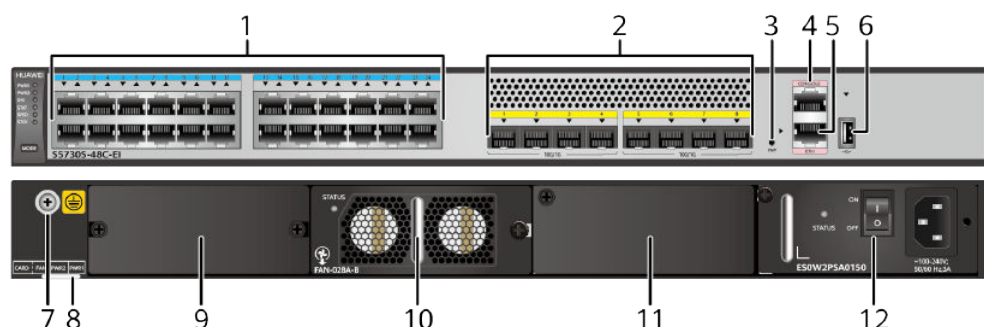
[Table 4-957](#) lists the mapping between the S5730S-48C-EI-AC chassis and software versions.

Table 4-957 Version mapping

Series	Model	Software Version
S5730S-EI	S5730S-48C-EI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 4-378 S5730S-48C-EI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Eight 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	4	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.
5	One ETH management port	6	One USB port

7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	Fan slot NOTE Applicable fan module: FAN-028A-B
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-958](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-958 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-959](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-959 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-960](#).

Table 4-960 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-961](#) describes the attributes of an ETH management port.

Table 4-961 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730S-48C-EI-AC has similar indicators to those of the S5730S-68C-PWR-EI except that the S5730S-48C-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730S-48C-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-379 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-379 Power supply connections of dual DC power modules

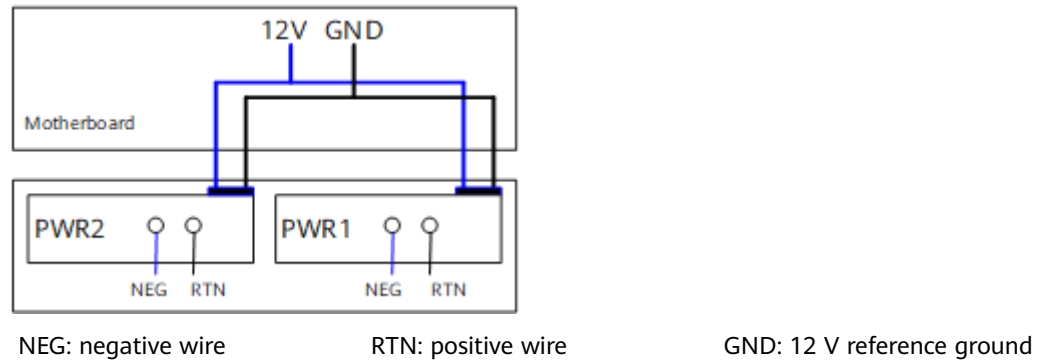
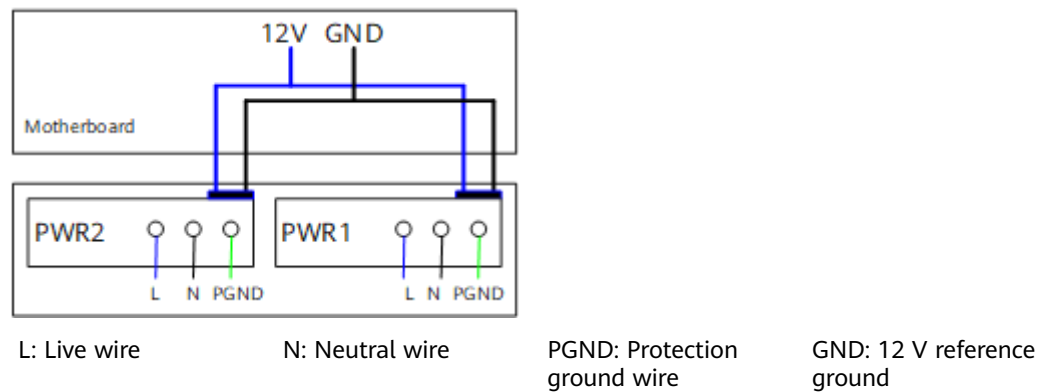


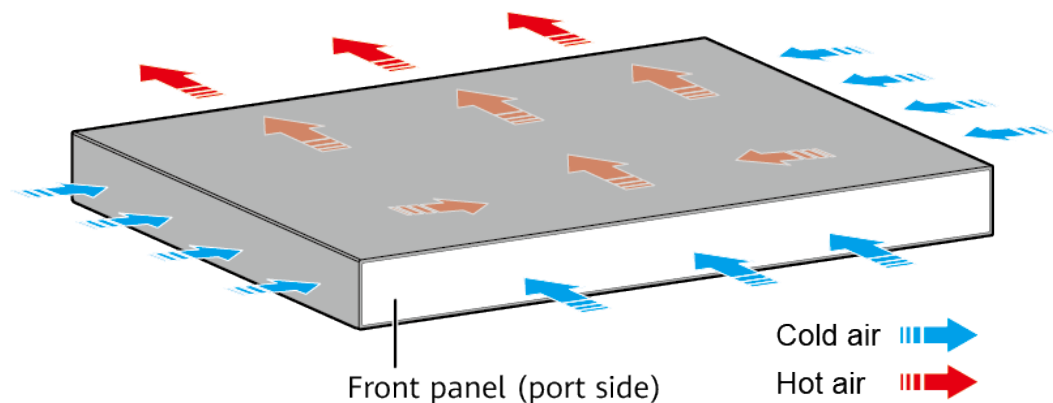
Figure 4-380 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-380 Power supply connections of dual AC power modules



Heat Dissipation

The S5730S-48C-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-962](#) lists technical specifications of the S5730S-48C-EI-AC.

Table 4-962 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	47.83 years
Mean time to repair (MTTR)	2 years
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.)
Weight (with packaging)	8.2 kg (18.08 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	62.4 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	39.02 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.4 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010790

4.18.2 S5730S-48C-PWR-EI

Version Mapping

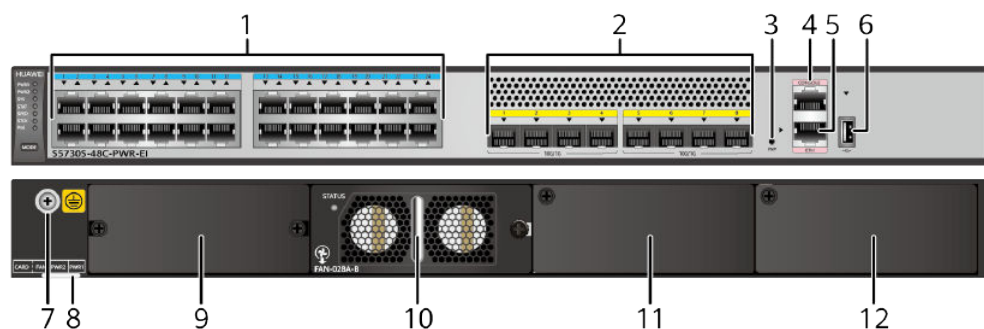
Table 4-963 lists the mapping between the S5730S-48C-PWR-EI chassis and software versions.

Table 4-963 Version mapping

Series	Model	Software Version
S5730S-EI	S5730S-48C-PWR-EI	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 4-381 S5730S-48C-PWR-EI appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Eight 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	4	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.
5	One ETH management port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	Fan slot NOTE Applicable fan module: FAN-028A-B

1	Power module slot 2	1	Power module slot 1
1	NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	2	NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-964](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-964 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-965](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-965 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-966](#).

Table 4-966 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-967](#) describes the attributes of an ETH management port.

Table 4-967 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730S-48C-PWR-EI has the same types of indicators as the S5730S-68C-PWR-EI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730S-48C-PWR-EI is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 4-968](#) lists its power supply configurations.

Table 4-968 Power supply configurations

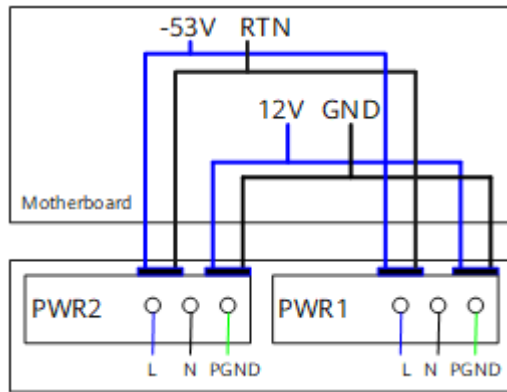
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-382](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

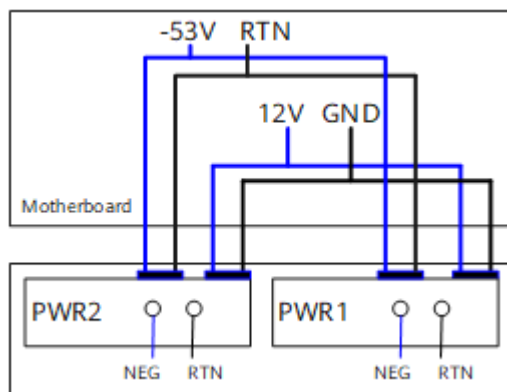
Figure 4-382 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-383 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

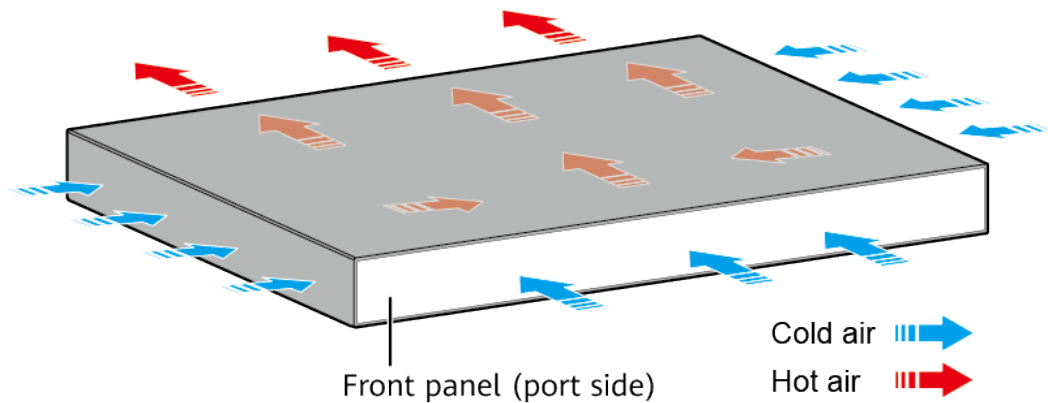
Figure 4-383 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5730S-48C-PWR-EI uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-969 lists technical specifications of the S5730S-48C-PWR-EI.

Table 4-969 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.)

Item	Description
Weight (with packaging)	7.5 kg (16.53 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 83.2 W (without card) 100% PoE loads: 967 W (system power consumption: 227.8 W, PoE: 739.2 W, without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	44.2 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.4 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010791

4.18.3 S5730S-68C-EI-AC

Version Mapping

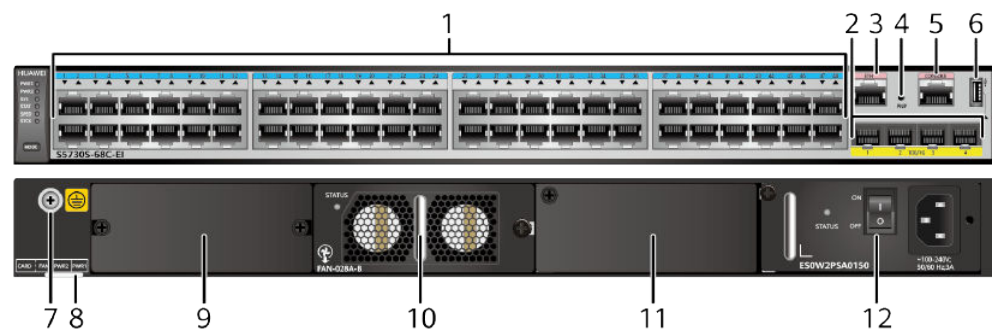
Table 4-970 lists the mapping between the S5730S-68C-EI-AC chassis and software versions.

Table 4-970 Version mapping

Series	Model	Software Version
S5730S-EI	S5730S-68C-EI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 4-384 S5730S-68C-EI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One ETH management port	4	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	Fan slot NOTE Applicable fan module: FAN-028A-B
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-971](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-971 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-972](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-972 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-973](#).

Table 4-973 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-974](#) describes the attributes of an ETH management port.

Table 4-974 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

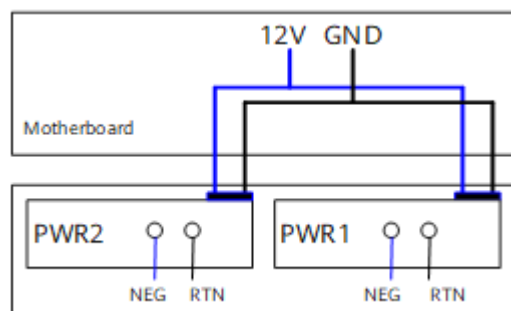
The S5730S-68C-EI-AC has similar indicators to those of the S5730S-68C-PWR-EI except that the S5730S-68C-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730S-68C-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-385](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-385 Power supply connections of dual DC power modules



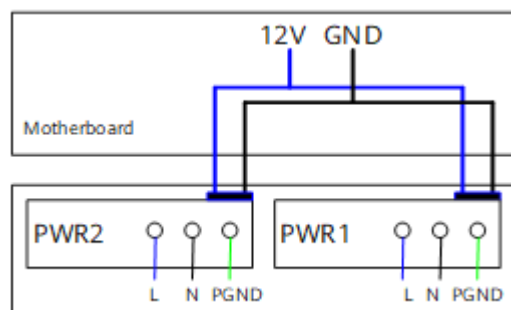
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

[Figure 4-386](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-386 Power supply connections of dual AC power modules



L: Live wire

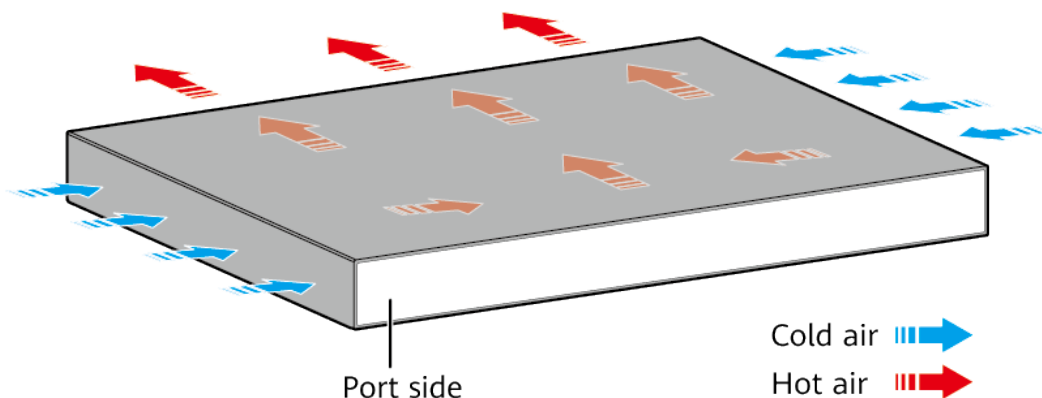
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5730S-68C-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-975](#) lists technical specifications of the S5730S-68C-EI-AC.

Table 4-975 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.53 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.)
Weight (with packaging)	8.5 kg (18.74 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	65.4 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.3 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010792

4.18.4 S5730S-68C-PWR-EI

Version Mapping

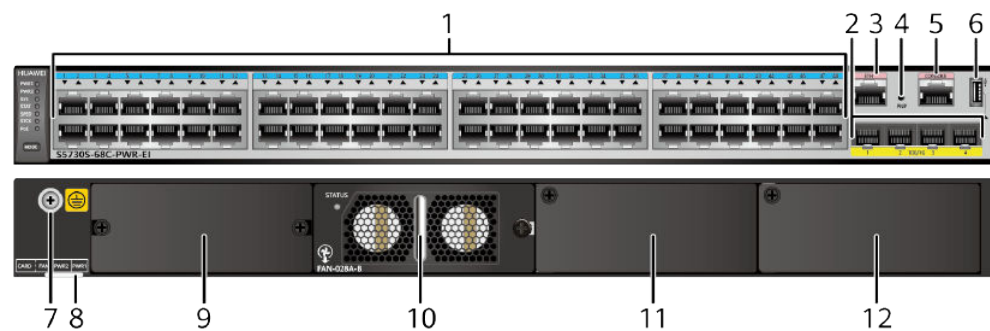
[Table 4-976](#) lists the mapping between the S5730S-68C-PWR-EI chassis and software versions.

Table 4-976 Version mapping

Series	Model	Software Version
S5730S-EI	S5730S-68C-PWR-EI	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 4-387 S5730S-68C-PWR-EI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One ETH management port	4	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	Fan slot NOTE Applicable fan module: FAN-028A-B
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-977](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-977 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-978](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-978 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-979](#).

Table 4-979 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-980](#) describes the attributes of an ETH management port.

Table 4-980 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

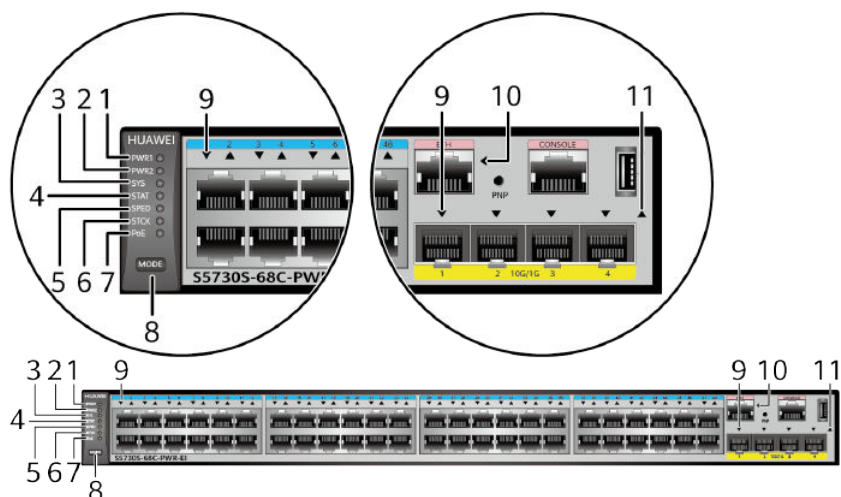
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-388 Indicators on the S5730S-68C-PWR-EI



NOTE

The S5730S-EI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 4-981 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-982 .		
10	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-982 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.

Display Mode	Color	Status	Description
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5730S-68C-PWR-EI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch.

[Table 4-983](#) lists its power supply configurations.

Table 4-983 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 29 802.3at (30 W per port): 14
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25

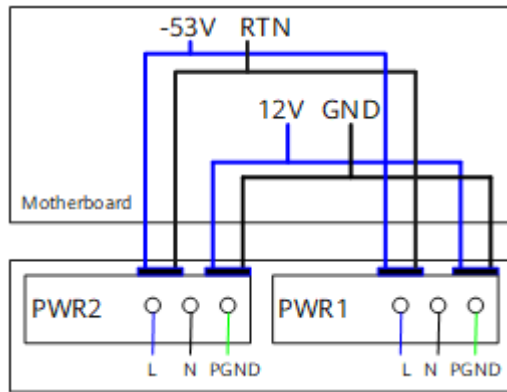
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 29
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 29

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-389 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

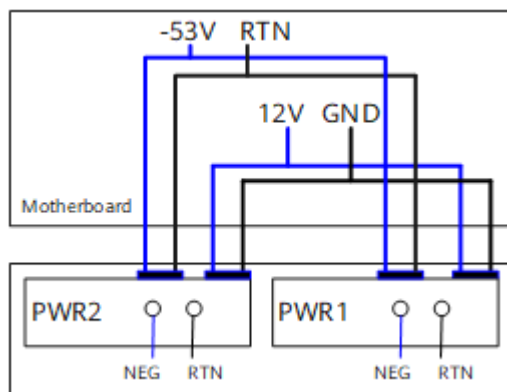
Figure 4-389 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-390 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

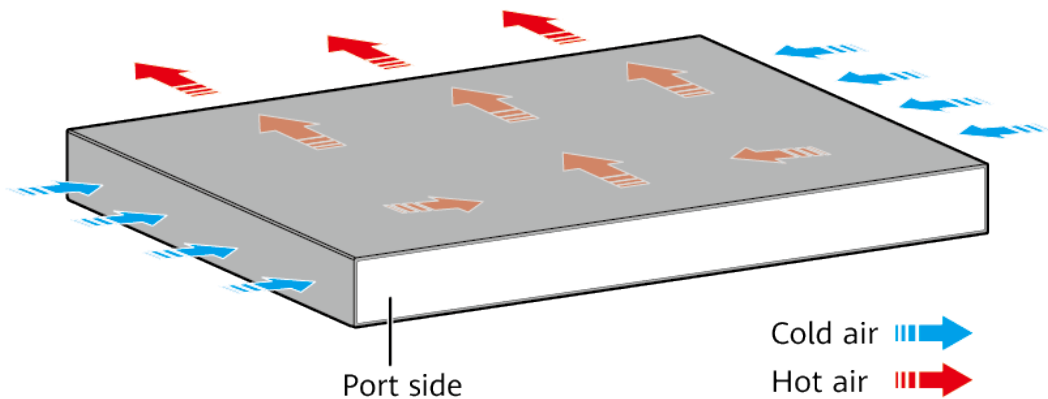
Figure 4-390 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5730S-68C-PWR-EI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-984 lists technical specifications of the S5730S-68C-PWR-EI.

Table 4-984 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	43.28 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	8 kg (17.64 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Using 650 W DC or 500 W AC power modules <ul style="list-style-type: none"> - Not providing the PoE function: 68.3 W (without card) - 100% PoE loads: 925 W (system power consumption: 185.8 W, PoE: 739.2 W, without card) • Using 1150 W AC or 1000 W AC power modules <ul style="list-style-type: none"> - Not providing the PoE function: 68.3 W (without card) - 100% PoE loads: 1733 W (system power consumption: 293 W, PoE: 1440 W, without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	50.1 W (without card)

Item	Description
Operating temperature	<p>0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.</p>
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 64.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010793

4.19 S5700-HI

4.19.1 S5700-28C-HI

Version Mapping

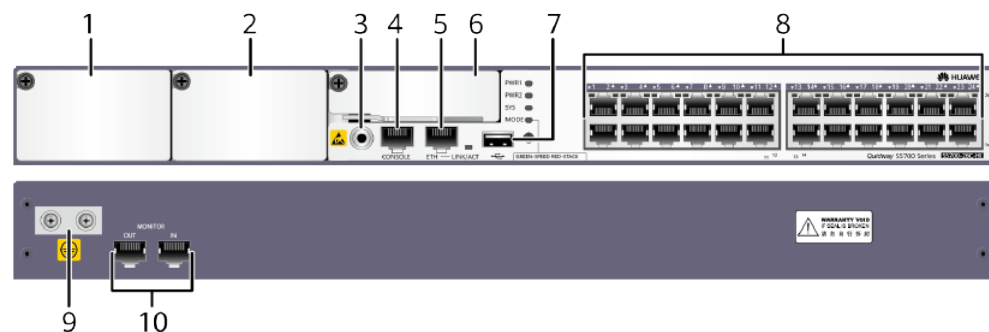
[Table 4-985](#) lists the mapping between the S5700-28C-HI and software versions.

Table 4-985 Version mapping

Series	Model	Software Version
S5700-HI	S5700-28C-HI	V100R006C01 to V200R005C02 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 4-391 S5700-28C-HI appearance



1	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> 5.13 W0PSA1701 (170 W AC Power Module) 5.14 ES5M0PSD1700 (170 W DC Power Module) 	2	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> 5.13 W0PSA1701 (170 W AC Power Module) 5.14 ES5M0PSD1700 (170 W DC Power Module)
---	--	---	--

3	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	4	One console port
5	One ETH management port	6	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 8.7 ES5D00X2SA00 (2-Port GE SFP/10GE SFP+ Front Optical Interface Card) 8.8 ES5D00X4SA00 (4-Port GE SFP/10GE SFP+ Front Optical Interface Card) 8.9 ES5D00G4SC00 (4-Port GE SFP Front Optical Interface Card)
7	One USB port	8	Twenty-four 10/100/1000BASE-T ports
9	Ground screw NOTE It is used with a ground cable . The switch has two ground screws, any of which can be used to install a ground cable.	10	Monitoring port NOTE The monitoring port monitors the cabinet door, power module, battery power, and power supply of the air conditioner.

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-986](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-986 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-987](#).

Table 4-987 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-988](#) describes the attributes of an ETH management port.

Table 4-988 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-392 Indicators on the S5700-28C-HI

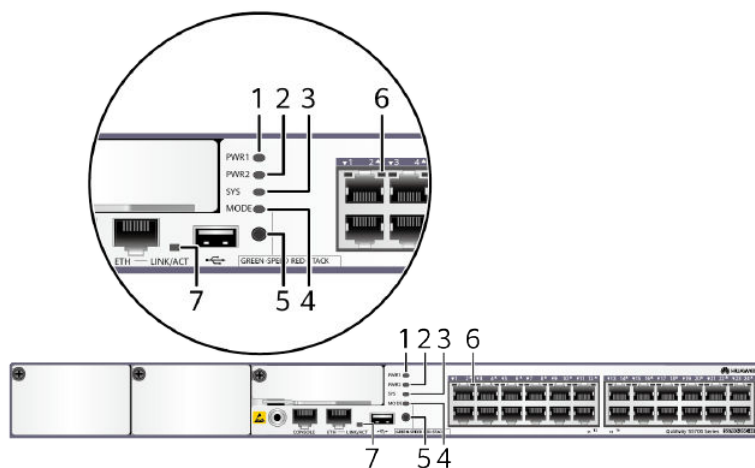


Table 4-989 Description of indicators on the switch

Number	Indicator/Button	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.

Number	Indicator/Button	Color	Description
		Red	<p>Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1:</p> <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in power module slot 1 fails.
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Red	<p>Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2:</p> <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in power module slot 2 fails.
3	SYS: system status indicator	-	Off: The system is not running.

Number	Indicator/Button	Color	Description
		Green	<p>Indicator states and meaning in V100R006 version:</p> <ul style="list-style-type: none"> Steady on: The system is not operating properly or is starting. Slow blinking: The system is running normally. Fast blinking: The system is copying the system software and configuration file from a USB flash drive during a USB-based upgrade. <p>Indicator states and meaning in V200R001 and later versions:</p> <ul style="list-style-type: none"> Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade. Slow blinking: The system is running normally.
		Yellow	<ul style="list-style-type: none"> Steady on: The system is performing self-check during startup (only applicable to V100R006). Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: An error occurred during USB-based upgrade and the system failed to be upgraded after a USB flash drive is inserted.
4	MODE: mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.

Number	Indicator/ Button	Color	Description
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	Mode switch button	-	<p>In versions earlier than V200R003C00:</p> <ul style="list-style-type: none"> • When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port. • When you press this button a second time, the mode indicator turns off. <p>In V200R003C00 and later versions:</p> <ul style="list-style-type: none"> • When you press this button once, the mode indicator turns green and the service port indicators show the speed of ports. • When you press this button a second time, the mode indicator turns red and the service port indicators show stack information. • When you press this button a third time, the mode indicator turns off and the service port indicators restore to the status mode. <p>If you do not press the button within 45 seconds, the mode indicator restores to the default mode.</p>
6	Service port indicator		Meanings of service port indicators vary in different modes. For details, see Table 4-990 and Table 4-991 .

Number	Indicator/Button	Color	Description
7	ETH indicator	Green	<ul style="list-style-type: none"> Off: No link is established on the port. Steady on: The port is connected. Blinking: The port is sending or receiving data.

Table 4-990 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 4-991 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

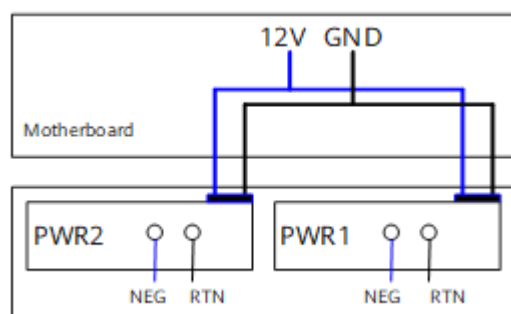
Display Mode	Color	Status	Description
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-28C-HI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-393 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-393 Power supply connections of dual DC power modules



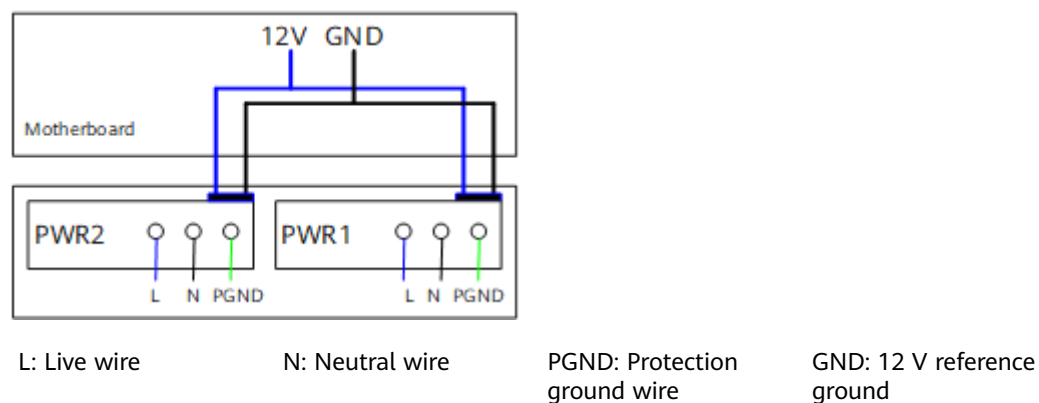
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

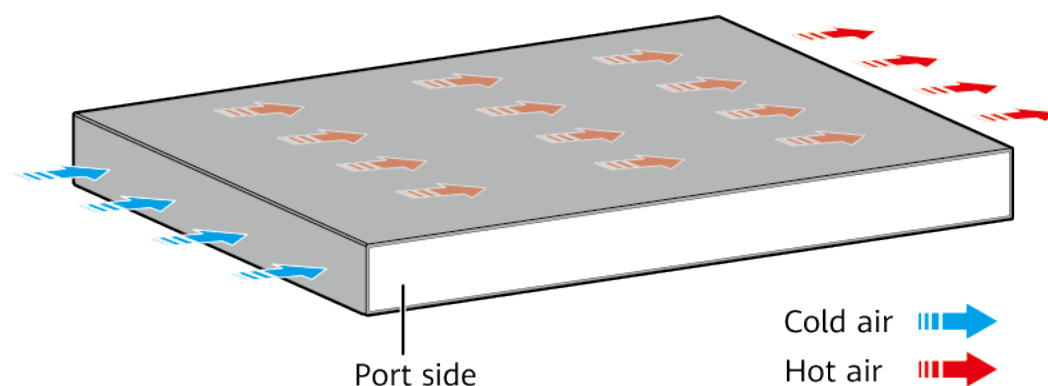
Figure 4-394 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-394 Power supply connections of dual AC power modules



Heat Dissipation

The S5700-28C-HI has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-992 lists technical specifications of the S5700-28C-HI.

Table 4-992 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	64 MB
Mean time between failures (MTBF)	28.7 years when a 4-port 10GE interface card is configured, 41.1 years when a 2-port 10GE interface card is configured, 42.9 years when a 4-port GE interface card is configured

Item	Description
Mean time to repair (MTTR)	2 years
Availability	> 0.99999
Service port surge protection	±2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode Using DC power modules: ±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 220.0 mm (1.75 in. x 17.4 in. x 8.7 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 6.5 kg (14.33 lb)
Stack ports	<ul style="list-style-type: none"> Versions earlier than V200R003C00 do not support stack ports. Since V200R003C00, 10GE ports on the front card can be used as stack ports.
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	76.6 W
Operating temperature	-5°C to +55°C (23°F to 131°F) NOTE The operating temperature of the switch is -5°C to +50°C (23°F to 122°F) when it uses SFP+ optical modules with 40 km or longer transmission distances.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 60 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02353630

4.19.2 S5700-28C-HI-24S

Version Mapping

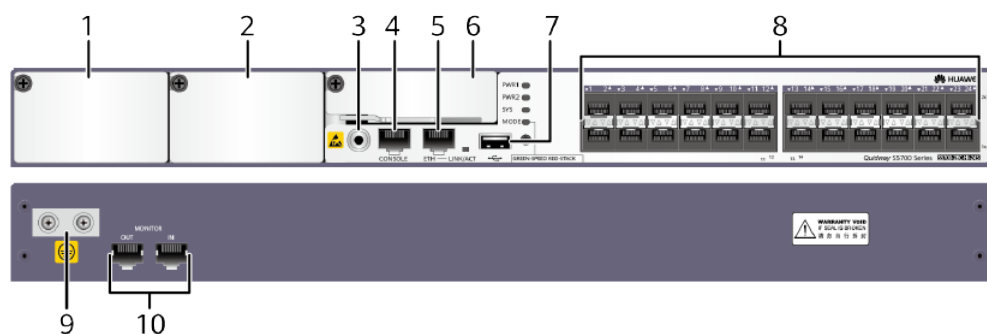
[Table 4-993](#) lists the mapping between the S5700-28C-HI-24S and software versions.

Table 4-993 Version mapping

Series	Model	Software Version
S5700-HI	S5700-28C-HI-24S	V100R006C01 to V200R005C02 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 4-395 S5700-28C-HI-24S appearance



1	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.13 W0PSA1701 (170 W AC Power Module) • 5.14 ES5M0PSD1700 (170 W DC Power Module) 	2	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.13 W0PSA1701 (170 W AC Power Module) • 5.14 ES5M0PSD1700 (170 W DC Power Module)
3	<p>ESD jack</p> <p>NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.</p>	4	<p>One console port</p>
5	<p>One ETH management port</p>	6	<p>Front card slot</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> • 8.7 ES5D00X2SA00 (2-Port GE SFP/10GE SFP+ Front Optical Interface Card) • 8.8 ES5D00X4SA00 (4-Port GE SFP/10GE SFP+ Front Optical Interface Card) • 8.9 ES5D00G4SC00 (4-Port GE SFP Front Optical Interface Card)
7	<p>One USB port</p>	8	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable. The switch has two ground screws, any of which can be used to install a ground cable.</p>	10	<p>Monitoring port</p> <p>NOTE The monitoring port monitors the cabinet door, power module, battery power, and power supply of the air conditioner.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-994](#) describes the attributes of a 100/1000BASE-X port.

Table 4-994 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-995](#).

Table 4-995 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 4-996](#) describes the attributes of an ETH management port.

Table 4-996 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

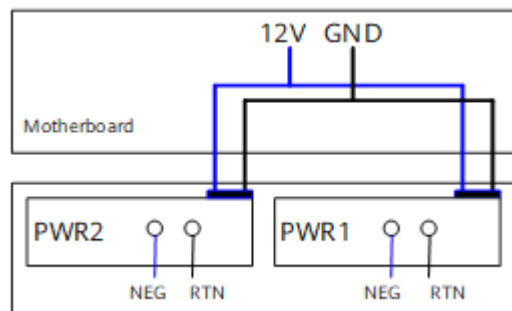
The S5700-28C-HI-24S has similar indicators (except service port indicators) to those on the S5700-28C-HI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28C-HI-24S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-396](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

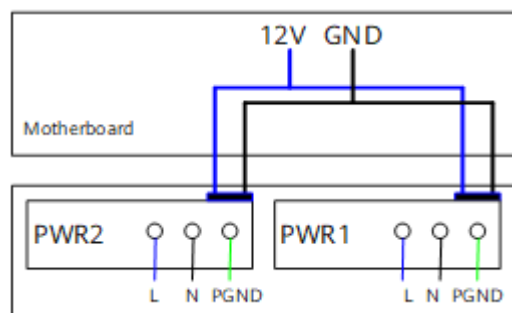
Figure 4-396 Power supply connections of dual DC power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground

Figure 4-397 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

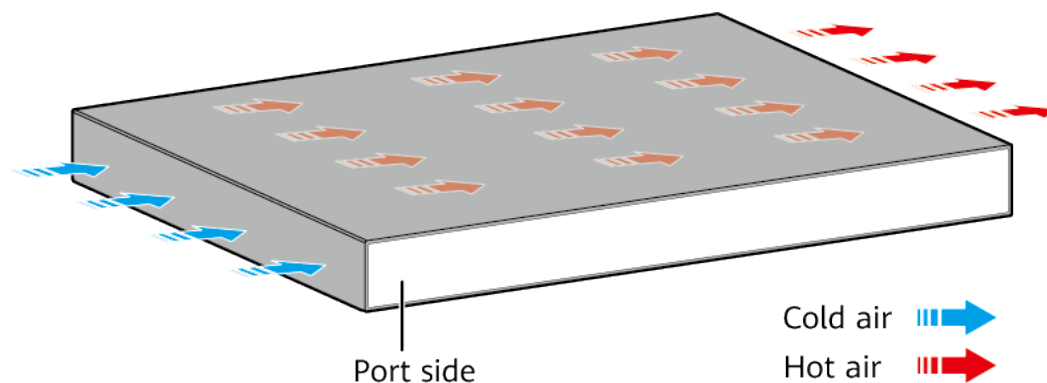
Figure 4-397 Power supply connections of dual AC power modules





L: Live wire N: Neutral wire PGND: Protection ground wire GND: 12 V reference ground

Heat Dissipation

The S5700-28C-HI-24S has three built-in fans for forced air cooling. The airflow direction is left-to-right.



Cold air 
 Hot air 

 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-997](#) lists technical specifications of the S5700-28C-HI-24S.

Table 4-997 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	64 MB
Mean time between failures (MTBF)	25.5 years when a 4-port 10GE interface card is configured, 34.8 years when a 2-port 10GE interface card is configured, 36.1 years when a 4-port GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	NA
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 220.0 mm (1.75 in. x 17.4 in. x 8.7 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 6.5 kg (14.33 lb)
Stack ports	<ul style="list-style-type: none"> Versions earlier than V200R003C00 do not support stack ports. Since V200R003C00, 10GE ports on the front card can be used as stack ports.
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	80.7 W
Operating temperature	-5°C to +55°C (23°F to 131°F) NOTE The operating temperature of the switch is -5°C to +50°C (23°F to 122°F) when it uses SFP+ optical modules with 40 km or longer transmission distances.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 60 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02353631

4.20 S5710-HI

4.20.1 S5710-108C-PWR-HI

Version Mapping

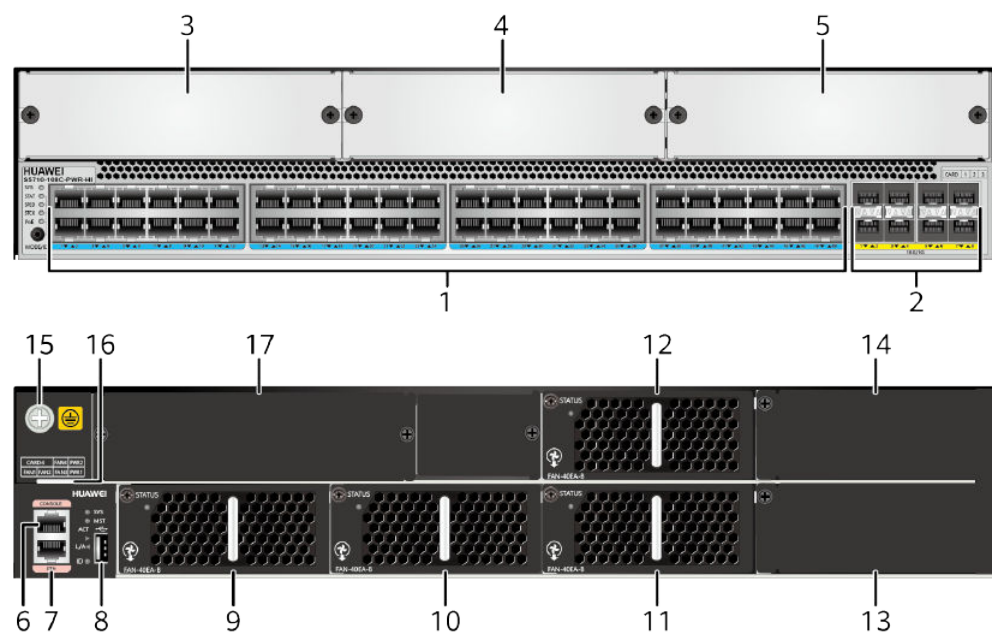
[Table 4-998](#) lists the mapping between the S5710-108C-PWR-HI chassis and software versions.

Table 4-998 Version mapping

Series	Model	Software Version
S5710-HI	S5710-108C-PWR-HI	V200R003C00 to V200R005C03 NOTE This model does not match V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 4-398 S5710-108C-PWR-HI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Eight 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions)
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3	<p>Front card slot 1</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> 8.13 ES5D21G16S00 (16-Port GE SFP Front Optical Interface Card) 8.14 ES5D21G16T00 (16-Port GE Front Electrical Interface Card) 	4	<p>Front card slot 2</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> 8.13 ES5D21G16S00 (16-Port GE SFP Front Optical Interface Card) 8.14 ES5D21G16T00 (16-Port GE Front Electrical Interface Card)
5	<p>Front card slot 3</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> 8.13 ES5D21G16S00 (16-Port GE SFP Front Optical Interface Card) 8.14 ES5D21G16T00 (16-Port GE Front Electrical Interface Card) 	6	<p>One console port</p>
7	<p>One ETH management port</p>	8	<p>One USB port</p>
9	<p>Fan slot 1</p> <p>NOTE Applicable fan module: 7.3 FAN-40EA-B Fan Module</p>	10	<p>Fan slot 2</p> <p>NOTE Applicable fan module: 7.3 FAN-40EA-B Fan Module</p>
11	<p>Fan slot 3</p> <p>NOTE Applicable fan module: 7.3 FAN-40EA-B Fan Module</p>	12	<p>Fan slot 4</p> <p>NOTE Applicable fan module: 7.3 FAN-40EA-B Fan Module</p>
13	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> 350 W AC power module 1150 W AC PoE power module 	14	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> 350 W AC power module 1150 W AC PoE power module
15	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	16	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
17	<p>Rear card slot</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> 8.18 ES5D21X04S00 (4-Port 10GE SFP+ Rear Optical Interface Card) 8.16 ES5D21L04Q00 (4-Port 40GE QSFP+ Optical Interface Card) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-999](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-999 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1000](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1000 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1001](#).

Table 4-1001 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 4-1002** describes the attributes of an ETH management port.

Table 4-1002 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-399 Indicators on the S5710-108C-PWR-HI front panel

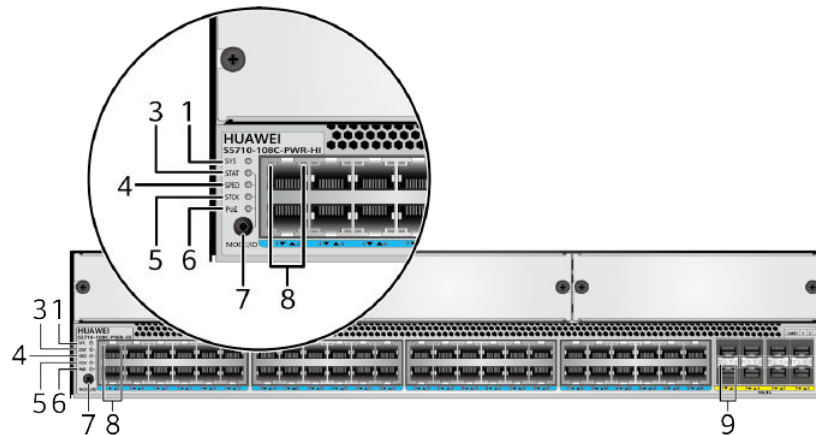


Figure 4-400 Indicators on the S5710-108C-PWR-HI rear panel

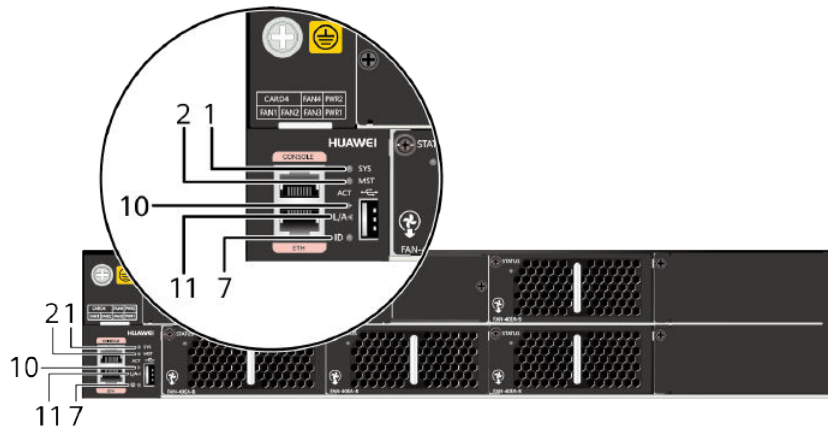


Table 4-1003 Description of indicators on the switch

Number	Indicator	Color	Description
1	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is running properly.

Number	Indicator	Color	Description
		Red	Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.
2	MST: stack master/slave indicator NOTE Versions prior to V200R005C03 do not support the stacking function.	-	Off: The switch is the standby or slave switch in a stack or a standalone switch with the stacking function disabled.
		Green	Steady on: The switch is the master switch in a stack or a standalone switch with the stacking function enabled.
3	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The service port indicators are in the status mode (default).
4	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK: stack indicator NOTE Versions prior to V200R005C03 do not support the stacking function.	Green	If you are not changing the indicator mode (default state): <ul style="list-style-type: none"> Off: The switch is the standby or slave switch in a stack or a standalone switch with the stacking function disabled. Blinking: The switch is the master switch in a stack or a standalone switch with the stacking function enabled.

Number	Indicator	Color	Description
			<p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">• Off: The stack mode is not selected.• Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.• Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
6	PoE: PoE indicator	Green	<ul style="list-style-type: none">• Off: The PoE mode is not selected.• Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator	Color	Description
7	MODE: mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to PoE mode and show the PoE status of ports. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
	ID: ID indicator NOTE The S5710-108C-PWR-HI of V200R003 does not support the ID indicator.	Blue	<ul style="list-style-type: none"> Off: The ID indicator is not used (default state). Steady on: The indicator identifies the device for maintenance. The ID indicator can be turned on or off remotely to help onsite engineers find the device to maintain.
8	Service port indicator (GE electrical port)	Meanings of service port indicators vary in different modes. For details, see Table 4-1004 .	
9	Service port indicator (10GE optical port)		

Number	Indicator	Color	Description
10	USB-based deployment indicator: ACT	-	Off: <ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The ACT indicator is damaged. The USB flash drive connected to the switch does not contain any configuration file. The switch is restarting after a USB-based upgrade.
		Green	<ul style="list-style-type: none"> Steady on: A USB-based deployment has been completed. Blinking: The system is reading data from the USB flash drive.
		Yellow NOTE This indicator state is available in V200R005C00 and later versions.	Steady on: The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
		Red	Blinking: An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.
11	Management port indicator: L/A	Green	<ul style="list-style-type: none"> Off: No link is established on the management port. Steady on: A link is established on the management port. Blinking: The management port is sending or receiving data.

Table 4-1004 Description of service port indicators in different modes

Display Mode	Color	Description
Status	-	Off: No link is established on the port or the port has been shut down.

Display Mode	Color	Description
	Green (electrical port)	<ul style="list-style-type: none"> Steady on: A link is established on the port. Blinking: The port is sending or receiving data.
	Green (optical port)	Steady on: A link is established on the port.
	Yellow (optical port)	Blinking: The port is sending or receiving data.
Speed	Green	<ul style="list-style-type: none"> Off: No link is established on the port or the port has been shut down. Steady on: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s. Blinking: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	Green	<ul style="list-style-type: none"> Off: The port is not providing power to a powered device (PD). Steady on: The port is providing PoE power. Blinking: The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.

Display Mode	Color	Description
Stack	Green	<ul style="list-style-type: none"> ● Off: Port indicators do not show the stack ID of the switch. ● If the indicator is steady on, the switch is not a master switch: <ul style="list-style-type: none"> - If the indicator of a port is steady on, the number of this port is the stack ID of the switch. - If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0. ● If the indicator is blinking, the switch is a master switch: <ul style="list-style-type: none"> - If the indicator of a port is blinking, the number of this port is the stack ID of the switch. - If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5710-108C-PWR-HI is a PoE switch and uses 1150 W AC PoE power modules. It has two power module slots. [Table 4-1005](#) lists its power supply configurations.

Table 4-1005 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 26
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 29 ● 802.3at (30 W per port): 14

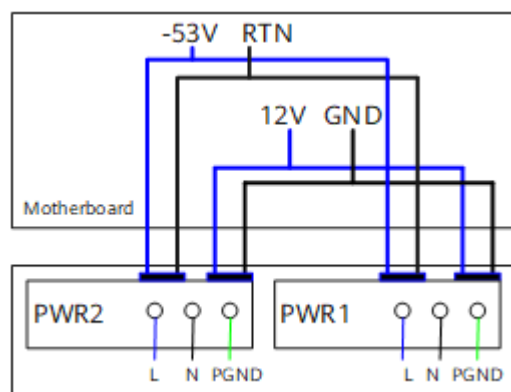
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-401 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 4-401 Power supply by dual AC PoE power modules

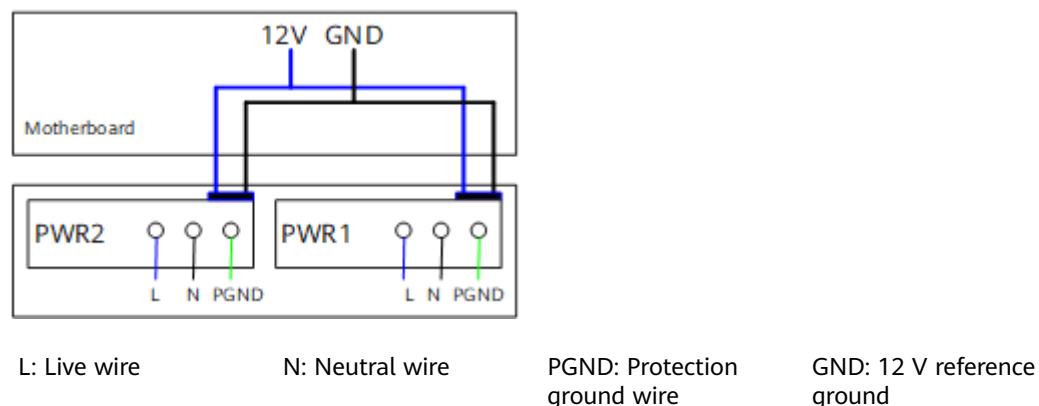


L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

When using non-PoE power modules, the S5710-108C-PWR-HI can be configured with a single power module or double power modules for 1+1 power redundancy. Currently, only one non-PoE power module model, a 350 W AC power module, is supported.

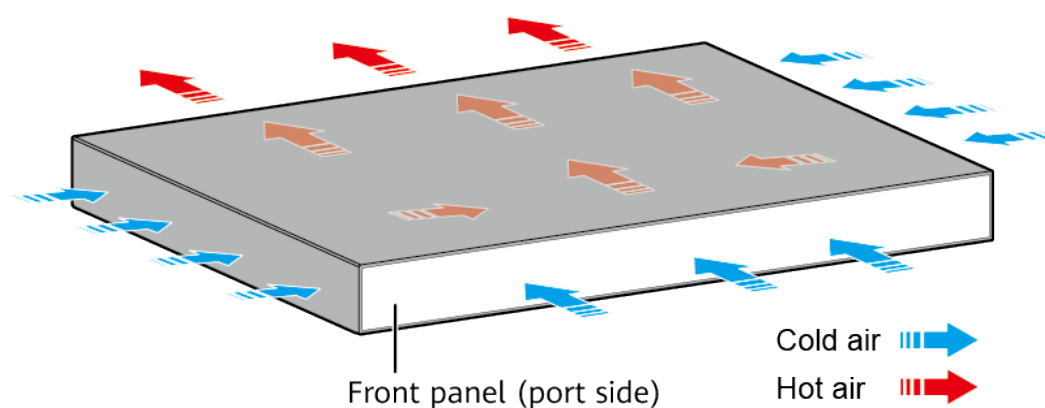
Figure 4-402 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-402 Power supply connections of dual AC power modules



Heat Dissipation

The S5710-108C-PWR-HI uses pluggable fan modules for forced air cooling. The airflow direction is front-to-rear.



NOTE

A little air also enters the chassis from both sides of the chassis.

Technical Specifications

Table 4-1006 lists technical specifications of the S5710-108C-PWR-HI.

Table 4-1006 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	200 MB

Item	Description
Mean time between failures (MTBF)	28.16 years when no interface card is configured, 27 years when a 16-port GE optical card is configured, 25.98 years when a 16-port GE electrical card is configured, 26.95 years when a 4-port 10GE card is configured, 26.69 years when a 4-port 40GE card is configured.
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	86.1 mm x 442.0 mm x 470.0 mm (3.4 in. x 17.4 in. x 18.5 in.) When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 557.3 mm (21.94 in.).
Weight	<ul style="list-style-type: none"> Empty: ≤ 12 kg (26.46 lb) Fully configured: ≤ 18 kg (39.68 lb)
Stack ports	<ul style="list-style-type: none"> V200R005C03 and earlier version: not supported V200R005C03: 8-port 10GE SFP+ ports on the front panel
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	<ul style="list-style-type: none"> Using 350 W power modules: 240 W Using two 1150 W power modules: 1680 W (system power consumption: 240 W, PoE: 1440 W)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 67.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354043

4.21 S5720-HI

NOTE

The S5720-HI switches manufactured after August 31, 2016 cannot be downgraded to V200R007. Use either of the following methods to check the manufacturing date of a switch:

- Run the **display elabel** command in the system view and check the **Manufactured** field.
- Check the manufacturing date on the certificate label attached at the bottom of the switch.

4.21.1 S5720-32C-HI-24S-AC

Version Mapping

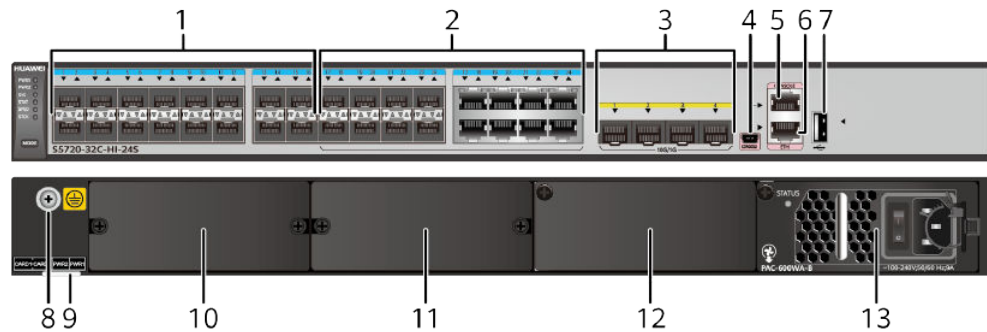
[Table 4-1007](#) lists the mapping between the S5720-32C-HI-24S-AC chassis and software versions.

Table 4-1007 Version mapping

Series	Model	Software Version
S5720-HI	S5720-32C-HI-24S-AC	V200R006C00 to V200R019C10 versions

Appearance and Structure

Figure 4-403 S5720-32C-HI-24S-AC appearance



<p>1 Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	<p>2 Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions)
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3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One mini USB port
5	One console port	6	One ETH management port
7	One USB port	8	Ground screw NOTE It is used with a ground cable .
9	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	10	Rear card slot 1 NOTE This slot is reserved for future use.
11	Rear card slot 2 NOTE Card supported: 8.19 ES5D21X04S01 (4-Port 10 GE SFP+ Rear Interface Card)	12	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.18 PDC-350WA-B (350 W DC Power Module) • 5.19 PAC-600WA-B (600 W AC Power Module)

1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.18 PDC-350WA-B (350 W DC Power Module) • 5.19 PAC-600WA-B (600 W AC Power Module) 	-	-
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Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-1008](#) describes the attributes of a 100/1000BASE-X port.

Table 4-1008 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1009](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1009 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1010](#).

Table 4-1010 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1011](#) describes the attributes of an ETH management port.

Table 4-1011 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-404 Indicators on the S5720-32C-HI-24S-AC

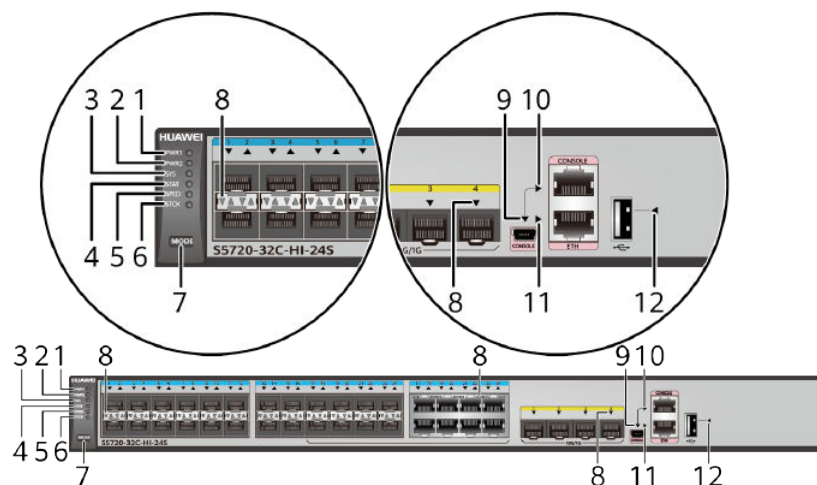


Table 4-1012 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-1013 and Table 4-1014 .		
9	-	Mini USB indicator	-	Off	The Mini USB port is disabled, and the console port is enabled.
			Green	Steady on	The Mini USB port is enabled. When the Mini USB indicator is steady green, the console indicator is off.
10	-	Console indicator	-	Off	The console port is disabled, and the Mini USB port is enabled.
			Green	Steady on	The console port is enabled (default state). When the console indicator is steady green, the Mini USB indicator is off.
11	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
12	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1013 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s.

Display Mode	Color	Status	Description
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 4-1014 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.

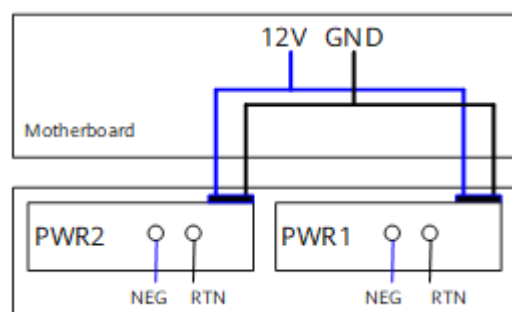
Display Mode	Color	Status	Description
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-32C-HI-24S-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-405 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-405 Power supply connections of dual DC power modules



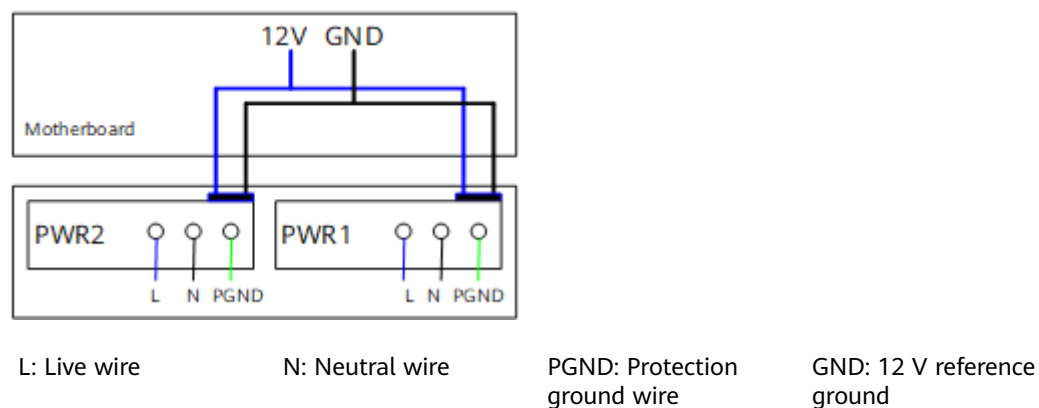
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

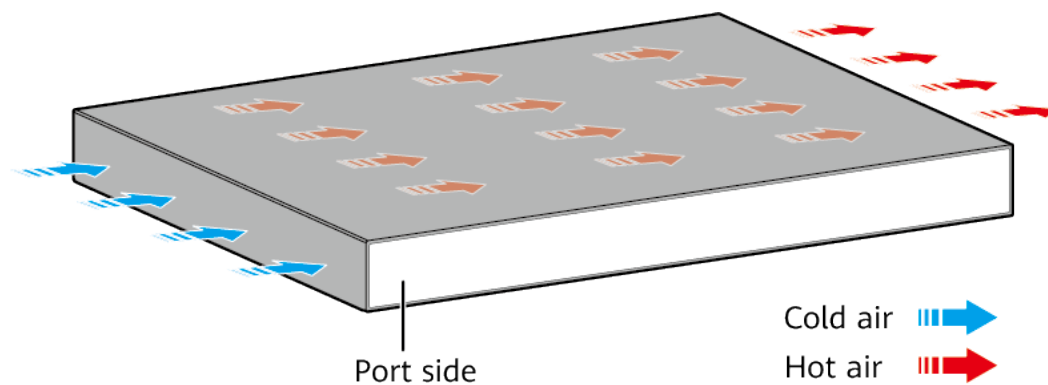
Figure 4-406 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-406 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-32C-HI-24S-AC has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1015 lists technical specifications of the S5720-32C-HI-24S-AC.

Table 4-1015 Technical specifications

Item	Description
Memory (RAM)	4 GB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	56.21 years when no interface card is configured, 52.63 years when a 4-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10.4 kg (22.93 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 4-port 10GE SFP+ rear interface card NOTE The switch supports service port stacking since V200R009C00.
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	172.7 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	122.12 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 60 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02358600

4.21.2 S5720-56C-HI-AC

Version Mapping

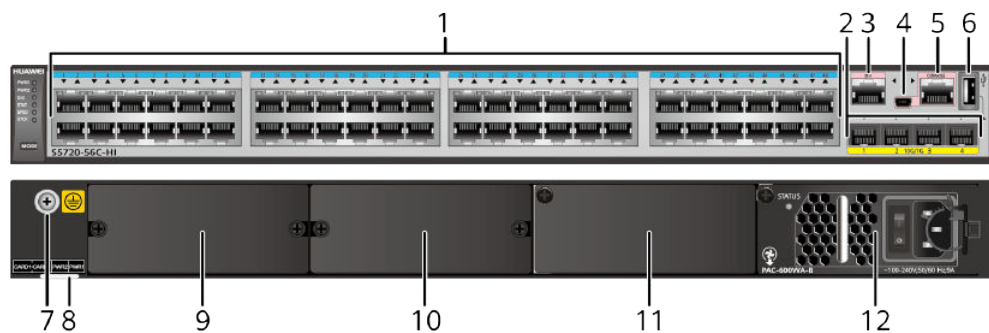
Table 4-1016 lists the mapping between the S5720-56C-HI-AC chassis and software versions.

Table 4-1016 Version mapping

Series	Model	Software Version
S5720-HI	S5720-56C-HI-AC	V200R006C00 to V200R019C10 versions

Appearance and Structure

Figure 4-407 S5720-56C-HI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One ETH management port	4	One mini USB port
5	One console port	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Rear card slot 1</p> <p>NOTE This slot is reserved for future use.</p>	10	<p>Rear card slot 2</p> <p>NOTE Card supported: 8.19 ES5D21X04S01 (4-Port 10 GE SFP+ Rear Interface Card)</p>

1 1	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.18 PDC-350WA-B (350 W DC Power Module) • 5.19 PAC-600WA-B (600 W AC Power Module) 	1 2	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.18 PDC-350WA-B (350 W DC Power Module) • 5.19 PAC-600WA-B (600 W AC Power Module)
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1017](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1017 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1018](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1018 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1019](#).

Table 4-1019 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1020](#) describes the attributes of an ETH management port.

Table 4-1020 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see

"First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

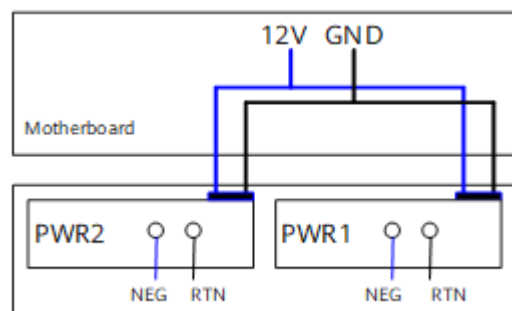
The S5720-56C-HI-AC has similar indicators to S5720-56C-PWR-HI-AC except that the S5720-56C-HI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-HI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-408](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-408 Power supply connections of dual DC power modules



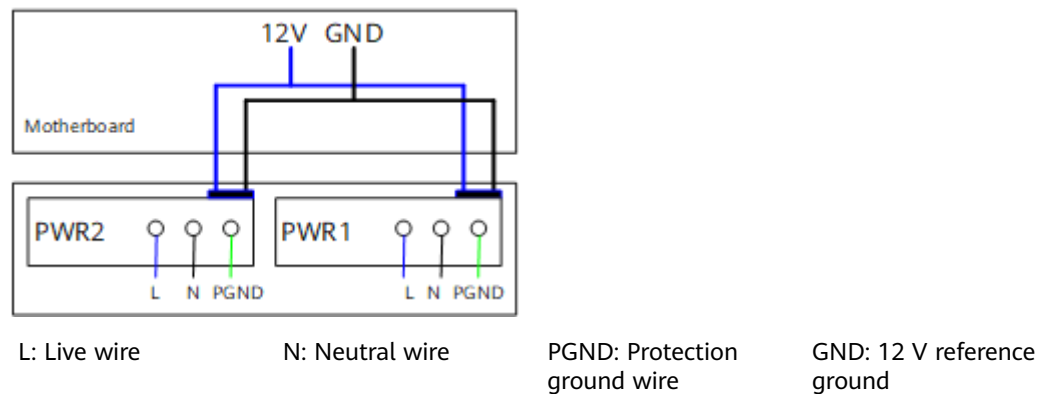
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

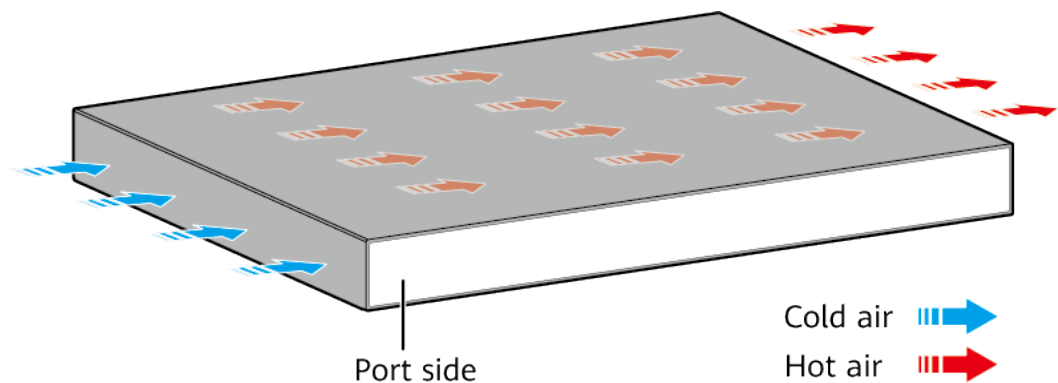
[Figure 4-409](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-409 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-56C-HI-AC has five built-in fans for forced air cooling. The airflow direction is left-to-right.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1021 lists technical specifications of the S5720-56C-HI-AC.

Table 4-1021 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	53.05 years when no interface card is configured, 49.85 years when a 4-port 10GE interface card is configured

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 4-port 10GE SFP+ rear interface card NOTE The switch supports service port stacking since V200R009C00.
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	183.3 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	128.93 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 60.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02358598

4.21.3 S5720-56C-PWR-HI-AC

Version Mapping

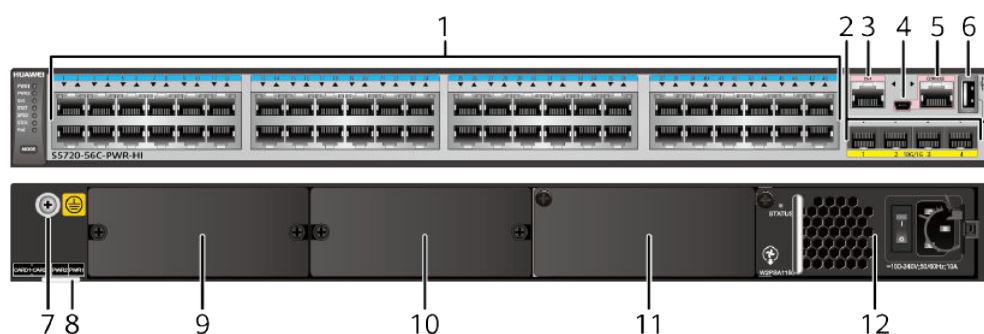
[Table 4-1022](#) lists the mapping between the S5720-56C-PWR-HI-AC chassis and software versions.

Table 4-1022 Version mapping

Series	Model	Software Version
S5720-HI	S5720-56C-PWR-HI-AC	V200R006C00 to V200R019C10 versions

Appearance and Structure

Figure 4-410 S5720-56C-PWR-HI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One ETH management port	4	One mini USB port
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot 1 NOTE This slot is reserved for future use.	10	Rear card slot 2 NOTE Card supported: 8.19 ES5D21X04S01 (4-Port 10 GE SFP+ Rear Interface Card)
11	Power module slot 2 NOTE Applicable power module: 1150 W AC PoE power module	12	Power module slot 1 NOTE Applicable power module: 1150 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1023](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1023 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1024](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1024 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1025](#).

Table 4-1025 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1026](#) describes the attributes of an ETH management port.

Table 4-1026 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-411 Indicators on the S5720-56C-PWR-HI-AC

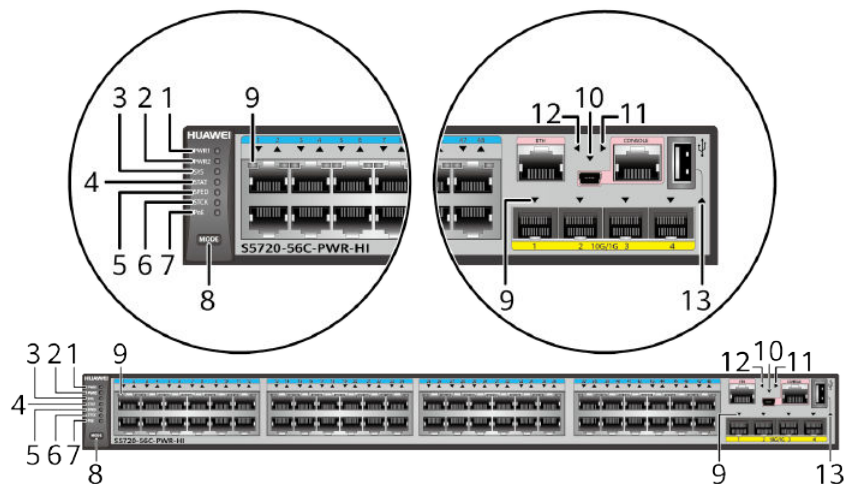


Table 4-1027 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-1028 .		
10	-	Mini USB indicator	-	Off	The Mini USB port is disabled, and the console port is enabled.
			Green	Steady on	The Mini USB port is enabled. When the Mini USB indicator is steady green, the console indicator is off.
11	-	Console indicator	-	Off	The console port is disabled, and the Mini USB port is enabled.
			Green	Steady on	The console port is enabled (default state). When the console indicator is steady green, the Mini USB indicator is off.

No.	Indicator	Name	Color	Status	Description
12	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
13	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1028 Description of service port indicators in different modes

Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: The port is connected. Blinking: The port is sending or receiving data.

Display Mode	Color	Description
Speed	Green	<ul style="list-style-type: none"> ● Off: The port is not connected or has been shut down. ● Steady on: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s. ● Blinking: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	Green	<ul style="list-style-type: none"> ● Off: The port does not provide PoE power. ● Steady on: The port is providing PoE power. ● Blinking: The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.
Stack	Green	<ul style="list-style-type: none"> ● Off: The STCK mode is not selected. ● If the indicator is steady on, the switch is not a master switch: <ul style="list-style-type: none"> – If the indicator of a port is steady on, the number of this port is the stack ID of the switch. – If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0. ● If the indicator is blinking, the switch is a master switch: <ul style="list-style-type: none"> – If the indicator of a port is blinking, the number of this port is the stack ID of the switch. – If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-56C-PWR-HI-AC is a PoE switch and uses 1150 W AC PoE power modules. It has two power module slots. [Table 4-1029](#) lists its power supply configurations.

Table 4-1029 Power supply configurations

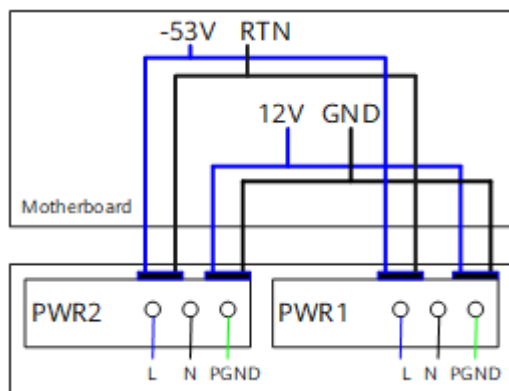
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 26
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 29• 802.3at (30 W per port): 14
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 29

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-412](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

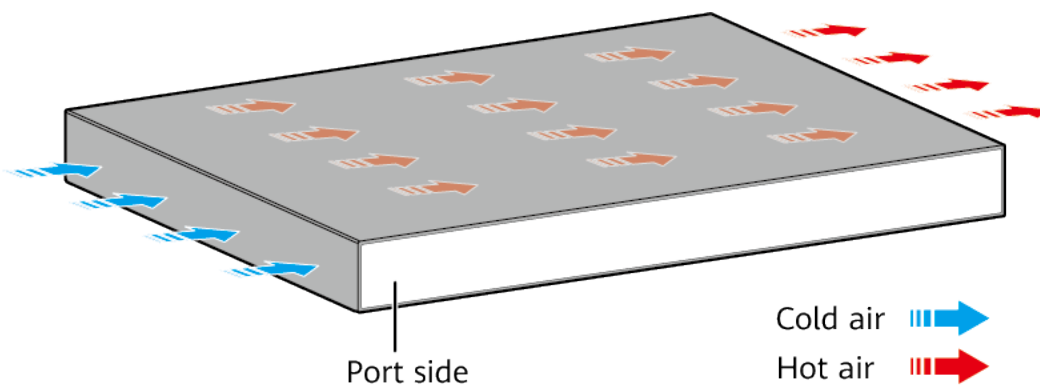
Figure 4-412 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-56C-PWR-HI-AC has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1030 lists technical specifications of the S5720-56C-PWR-HI-AC.

Table 4-1030 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	39.31 years when no interface card is configured; 37.53 years when a 4-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 510.5 mm (1.75 in. x 17.4 in. x 20.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 541.1 mm (1.75 in. x 17.4 in. x 21.3 in.)
Weight (with packaging)	10.9 kg (24.03 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 4-port 10GE SFP+ rear interface card NOTE The switch supports service port stacking since V200R009C00.
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	1739 W (system power consumption: 299 W, PoE: 1440 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	132.35 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 69.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02358599

4.21.4 S5720-56C-PWR-HI-AC1

Version Mapping

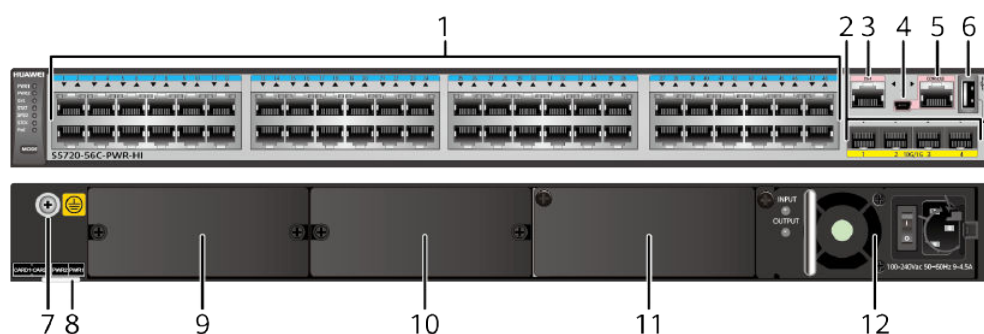
Table 4-1031 lists the mapping between the S5720-56C-PWR-HI-AC1 chassis and software versions.

Table 4-1031 Version mapping

Series	Model	Software Version
S5720-HI	S5720-56C-PWR-HI-AC1	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 4-413 S5720-56C-PWR-HI-AC1 appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One ETH management port	4	One mini USB port
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot 1 NOTE This slot is reserved for future use.	10	Rear card slot 2 NOTE Card supported: 8.19 ES5D21X04S01 (4-Port 10 GE SFP+ Rear Interface Card)
11	Power module slot 2 NOTE Applicable power module: 580 W AC PoE power module	12	Power module slot 1 NOTE Applicable power module: 580 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1032](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1032 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1033](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1033 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1034](#).

Table 4-1034 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1035](#) describes the attributes of an ETH management port.

Table 4-1035 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-56C-PWR-HI-AC1 has the same types of indicators as the S5720-56C-PWR-HI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-PWR-HI-AC1 is a PoE switch and uses 580 W AC PoE power modules. It has two power module slots. [Table 4-1036](#) lists its power supply configurations.

Table 4-1036 Power supply configurations

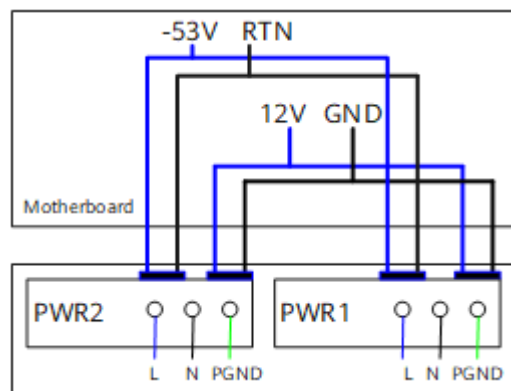
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
580 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
580 W	580 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 4-414](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

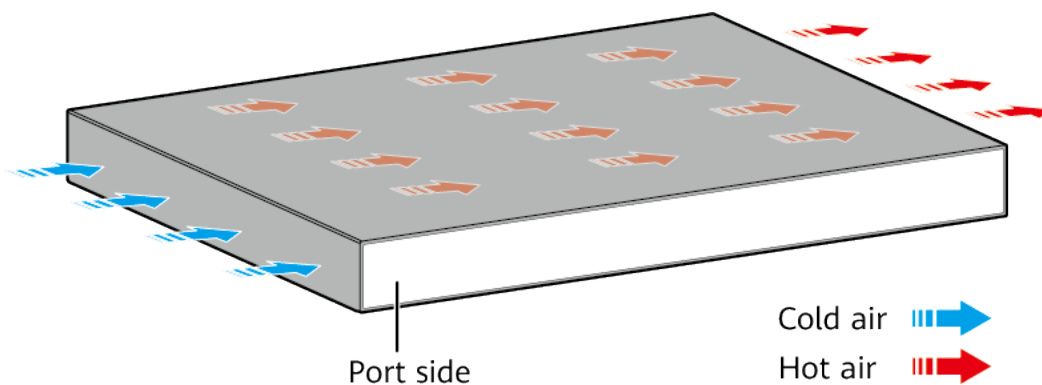
Figure 4-414 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-56C-PWR-HI-AC1 has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1037 lists technical specifications of the S5720-56C-PWR-HI-AC1.

Table 4-1037 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	39.31 years when no interface card is configured; 37.53 years when a 4-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10.6 kg (23.37 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 4-port 10GE SFP+ rear interface card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	Not providing the PoE function: 188.74 W 100% PoE loads: 1036 W (system power consumption: 296 W, PoE: 740 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	137.8 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 64.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350MTQ

4.22 S5730-HI

4.22.1 S5730-36C-HI

Version Mapping

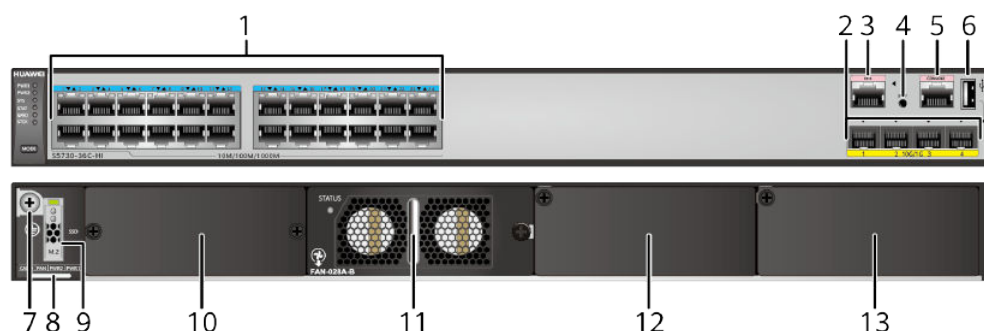
[Table 4-1038](#) lists the mapping between the S5730-36C-HI chassis and software versions.

Table 4-1038 Version mapping

Series	Model	Software Version
S5730-HI	S5730-36C-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 4-415 S5730-36C-HI appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	SSD card slot NOTE Pluggable SSD card supported: SSD-240GB	10	Rear card slot NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00

1 1	Fan slot NOTE Applicable fan module: FAN-028A-B	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1039](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1039 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1040](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1040 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1041](#).

Table 4-1041 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1042](#) describes the attributes of an ETH management port.

Table 4-1042 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

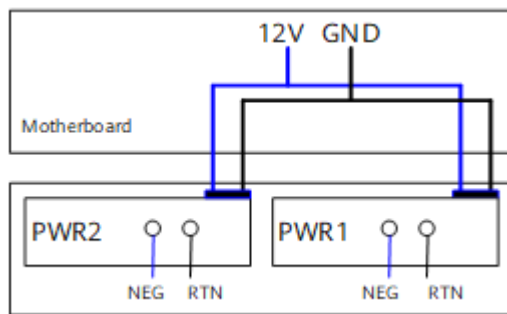
The S5730-36C-HI has similar indicators to those of the S5730-44C-PWH-HI except that the S5730-36C-HI does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-36C-HI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-416 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-416 Power supply connections of dual DC power modules



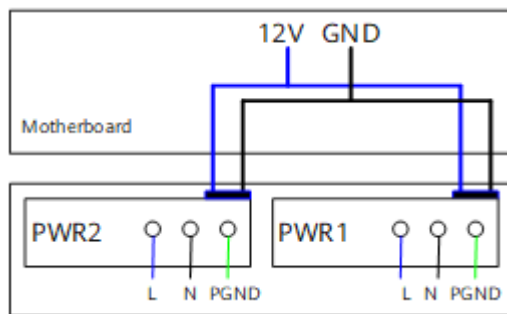
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-417 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-417 Power supply connections of dual AC power modules



L: Live wire

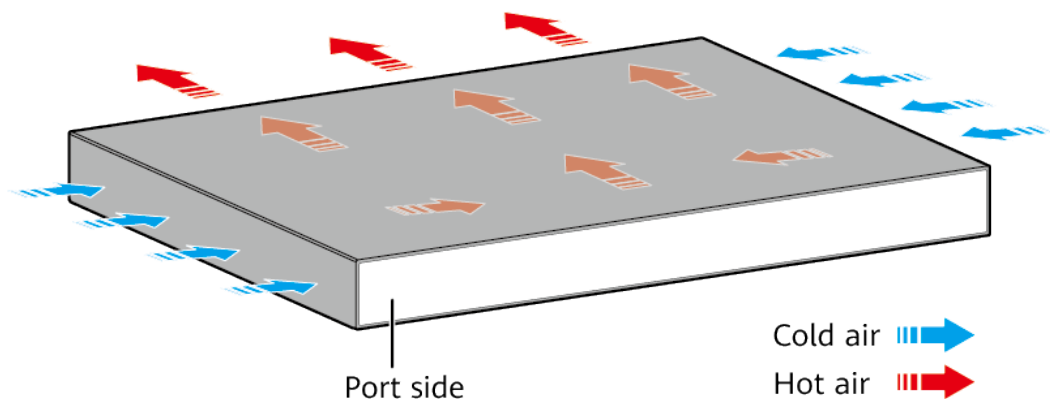
N: Neutral wire



PGND: Protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5730-36C-HI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



Cold air 
 Hot air 

 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1043 lists technical specifications of the S5730-36C-HI.

Table 4-1043 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	47.53 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	8.6 kg (18.96 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	74 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	58 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 52.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02351MQJ

4.22.2 S5730-36C-PWH-HI

Version Mapping

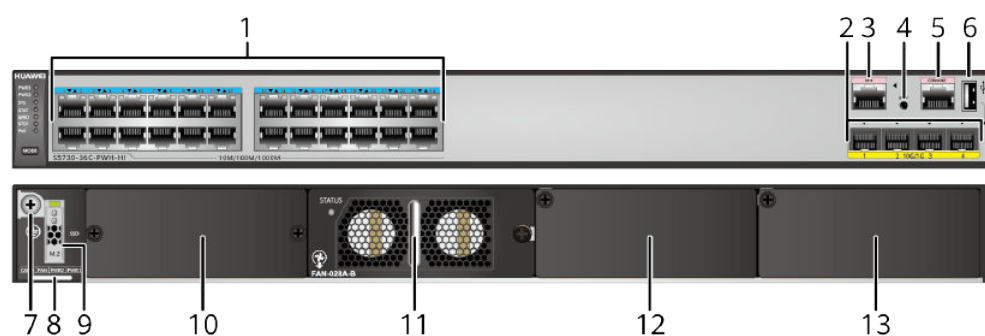
Table 4-1044 lists the mapping between the S5730-36C-PWH-HI chassis and software versions.

Table 4-1044 Version mapping

Series	Model	Software Version
S5730-HI	S5730-36C-PWH-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 4-418 S5730-36C-PWH-HI appearance



1	Twenty-four PoE+ + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
---	--	---	---

3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	SSD card slot NOTE Pluggable SSD card supported: SSD-240GB	10	Rear card slot NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00
11	Fan slot NOTE Applicable fan module: FAN-028A-B	12	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)
13	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1045](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1045 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1046](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1046 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1047](#).

Table 4-1047 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1048](#) describes the attributes of an ETH management port.

Table 4-1048 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-36C-PWH-HI has the same types of indicators as the S5730-44C-PWH-HI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-36C-PWH-HI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch.

[Table 4-1049](#) lists its power supply configurations.

Table 4-1049 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12 802.3bt (60 W per port): 6
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 12
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 13

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 14 • 802.3bt (60 W per port): 7
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 14
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 12
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 12

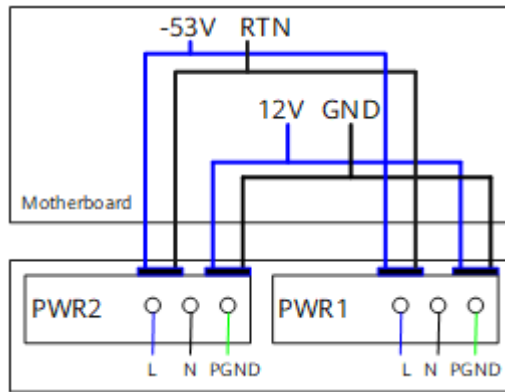
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 24
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 24
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 24
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 14
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 14

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-419 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

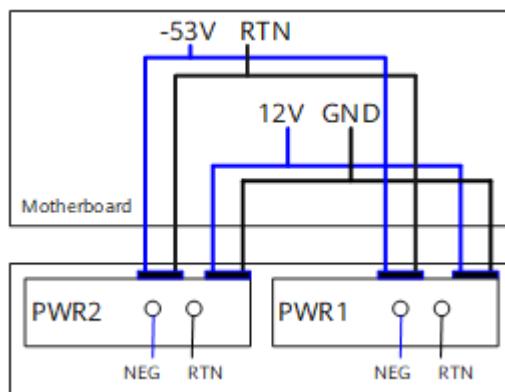
Figure 4-419 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-420 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

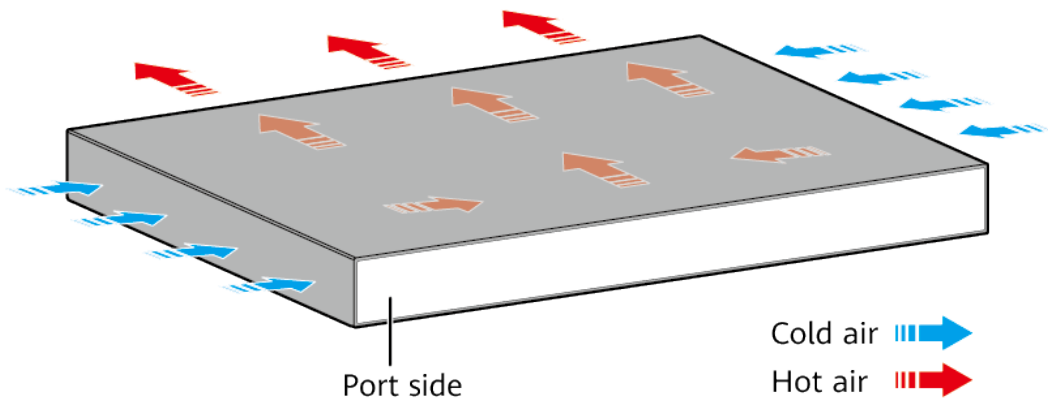
Figure 4-420 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5730-36C-PWH-HI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1050 lists technical specifications of the S5730-36C-PWH-HI.

Table 4-1050 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	53.93 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	8.8 kg (19.40 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Using 650 W DC or 500 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 90 W (without card) - 100% PoE loads: 815 W (system power consumption: 75.8 W, PoE: 739.2 W, without card) • Using 1150 W AC or 1000 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 105.9 W (without card) - 100% PoE loads: 1595 W (system power consumption: 155 W, PoE: 1440 W, without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	Using 650 W DC or 500 W AC power modules: 66 W (without card) Using 1150 W AC or 1000 W AC power modules: 73 W (without card)

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 69 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02351MQN

4.22.3 S5730-36C-HI-24S

Version Mapping

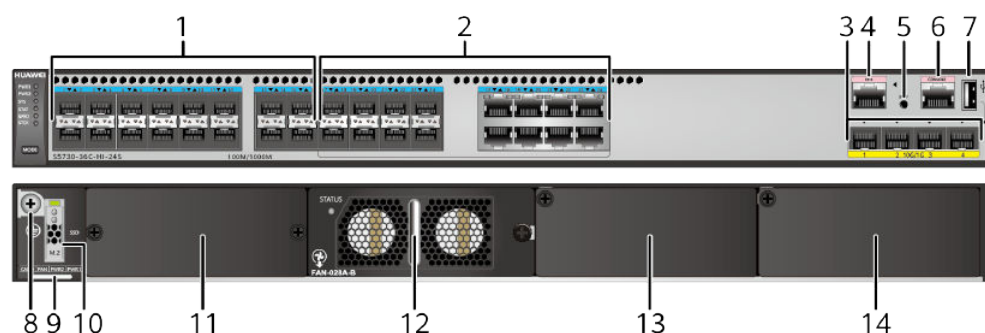
Table 4-1051 lists the mapping between the S5730-36C-HI-24S chassis and software versions.

Table 4-1051 Version mapping

Series	Model	Software Version
S5730-HI	S5730-36C-HI-24S	V200R013C00 to V200R019C10 versions

Appearance and Structure

Figure 4-421 S5730-36C-HI-24S appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • GE-CWDM optical module (used only in the OADM scenario) 	<p>2</p> <p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario)
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) 	<p>4</p> <p>One ETH management port</p>

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>One console port</p>
7	<p>One USB port</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>	10	<p>SSD card slot</p> <p>NOTE</p> <p>Pluggable SSD card supported: SSD-240GB</p>
11	<p>Rear card slot</p> <p>NOTE</p> <p>Cards supported:</p> <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	12	<p>Fan slot</p> <p>NOTE</p> <p>Applicable fan module: FAN-028A-B</p>
13	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	14	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-1052](#) describes the attributes of a 100/1000BASE-X port.

Table 4-1052 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1053](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1053 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1054](#).

Table 4-1054 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1055](#) describes the attributes of an ETH management port.

Table 4-1055 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

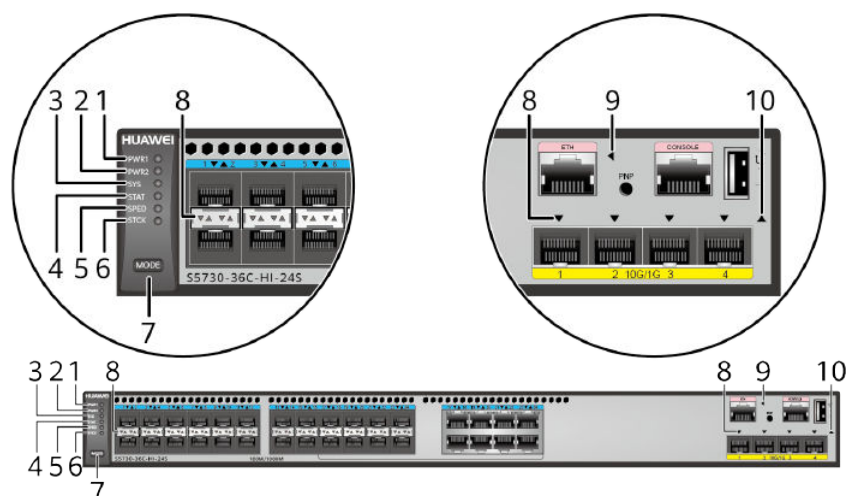
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-422 Indicators on the S5730-36C-HI-24S



 **NOTE**

The S5730-HI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators. When an S5730-HI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-1056 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	<p>The switch has two power modules installed. Any of the following situations occurs in power module slot 2:</p> <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	In the system startup preparation phase, the SYS indicator is steady green for no more than 15 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-1057 and Table 4-1058 .		
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1057 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s.

Display Mode	Color	Status	Description
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 4-1058 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.

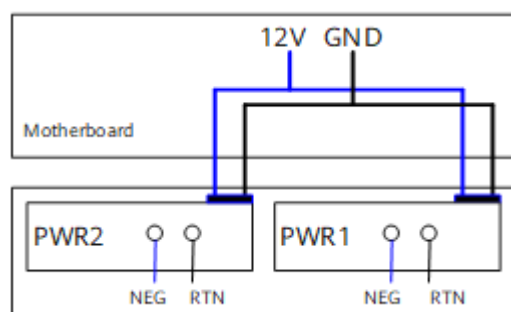
Display Mode	Color	Status	Description
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5730-36C-HI-24S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-423 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-423 Power supply connections of dual DC power modules



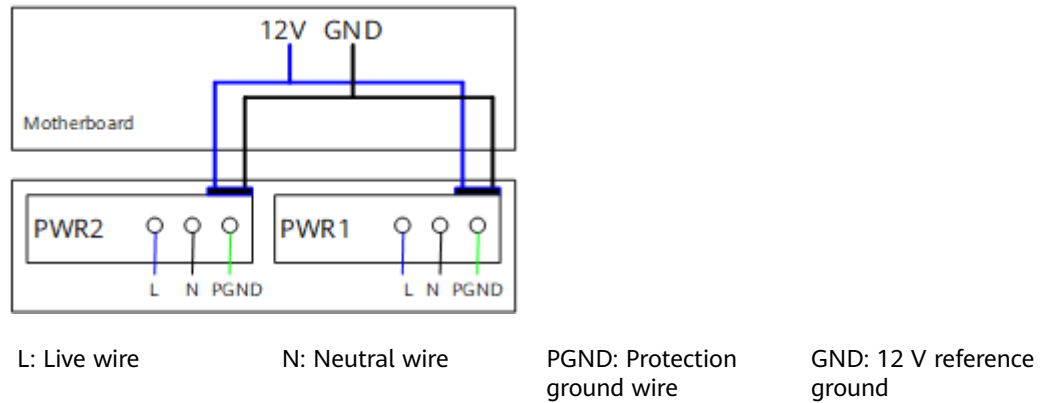
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

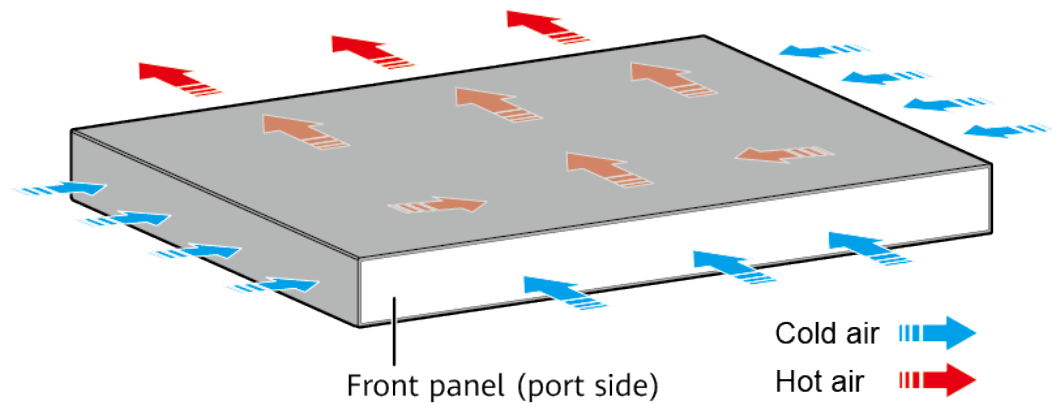
Figure 4-424 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-424 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-36C-HI-24S uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1059 lists specifications of the S5730-36C-HI-24S.

Table 4-1059 Technical specifications

Item	Description
Memory (RAM)	4 GB

Item	Description
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	48.12 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.49 kg (20.92 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	79 W (without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	66 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02351XFQ

4.22.4 S5730-44C-HI

Version Mapping

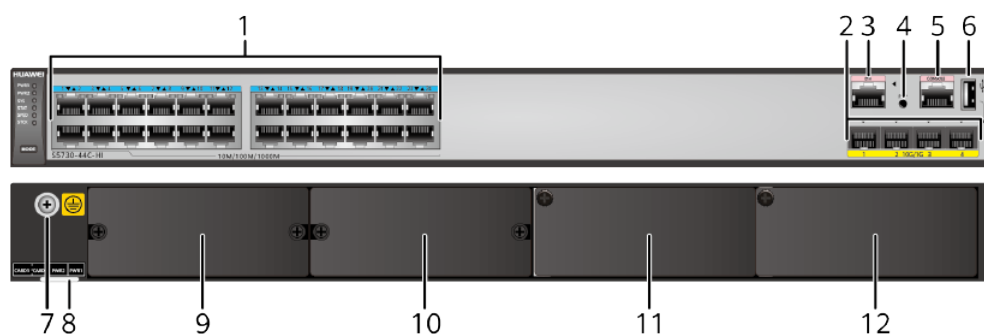
Table 4-1060 lists the mapping between the S5730-44C-HI chassis and software versions.

Table 4-1060 Version mapping

Series	Model	Software Version
S5730-HI	S5730-44C-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 4-425 S5730-44C-HI appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot 1 NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	10	Rear card slot 2 NOTE This slot is reserved for future use.

1 1	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	1 2	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1061](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1061 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1062](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1062 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1063](#).

Table 4-1063 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1064](#) describes the attributes of an ETH management port.

Table 4-1064 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

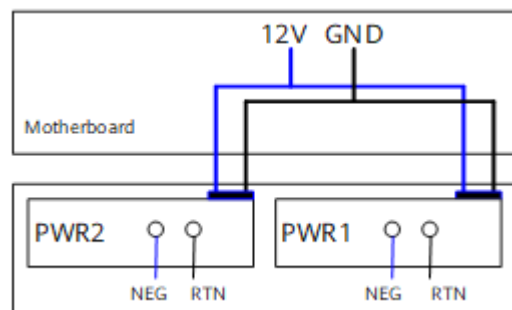
The S5730-44C-HI has similar indicators to those of the S5730-44C-PWH-HI except that the S5730-44C-HI does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-44C-HI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-426](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-426 Power supply connections of dual DC power modules



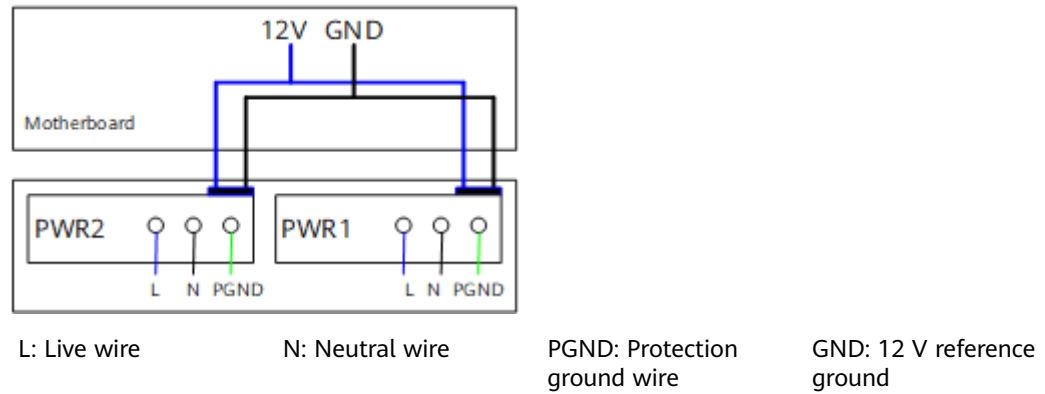
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

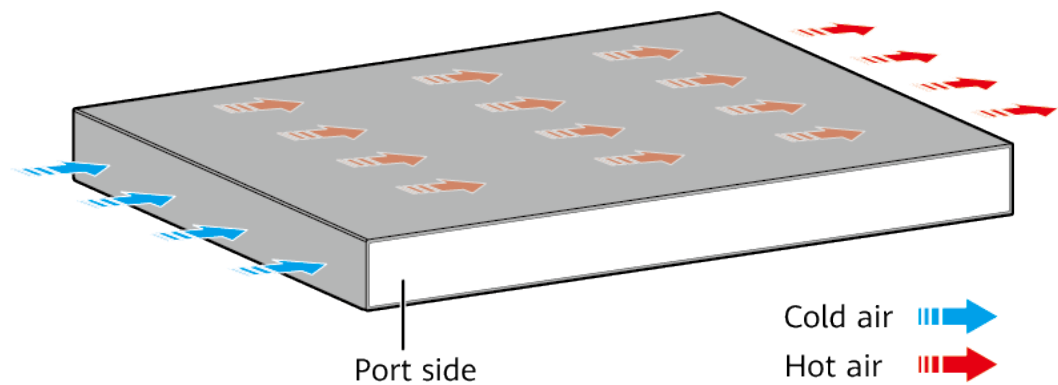
[Figure 4-427](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-427 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-44C-HI has three built-in fans for forced air cooling. The airflow direction is left-to-right.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1065 lists technical specifications of the S5730-44C-HI.

Table 4-1065 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.95 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	8.5 kg (18.74 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	76.5 W (without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	54 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 55.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02351MQG

4.22.5 S5730-44C-PWH-HI

Version Mapping

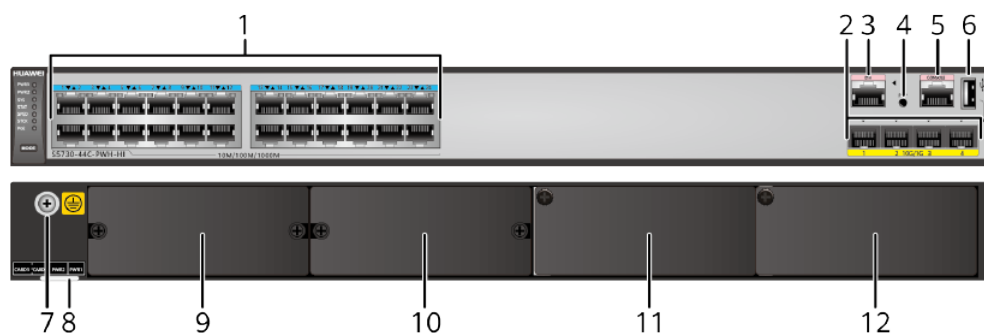
[Table 4-1066](#) lists the mapping between the S5730-44C-PWH-HI chassis and software versions.

Table 4-1066 Version mapping

Series	Model	Software Version
S5730-HI	S5730-44C-PWH-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 4-428 S5730-44C-PWH-HI appearance



1	Twenty-four PoE+ + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot 1 NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	10	Rear card slot 2 NOTE This slot is reserved for future use.
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1067](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1067 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1068](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1068 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1069](#).

Table 4-1069 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-1070** describes the attributes of an ETH management port.

Table 4-1070 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

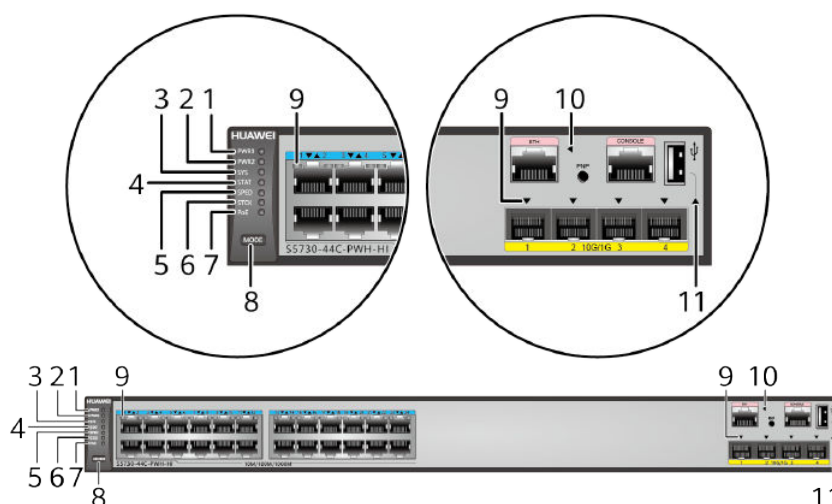
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-429 Indicators on the S5730-44C-PWH-HI



NOTE

The S5730-HI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5730-HI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-1071 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	In the system startup preparation phase, the SYS indicator is steady green for no more than 15 seconds.
			Green	Slow blinking	The system is running normally.

No.	Indicator	Name	Color	Status	Description
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-1072 .		
10	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1072 Description of service port indicators in different modes

Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: The port is connected. Blinking: The port is sending or receiving data.
Speed	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s. Blinking: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.

Display Mode	Color	Description
PoE	Green	<ul style="list-style-type: none"> ● Off: The port does not provide PoE power. ● Steady on: The port is providing PoE power. ● Blinking: The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.
Stack	Green	<ul style="list-style-type: none"> ● Off: The STCK mode is not selected. ● If the indicator is steady on, the switch is not a master switch: <ul style="list-style-type: none"> - If the indicator of a port is steady on, the number of this port is the stack ID of the switch. - If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0. ● If the indicator is blinking, the switch is a master switch: <ul style="list-style-type: none"> - If the indicator of a port is blinking, the number of this port is the stack ID of the switch. - If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5730-44C-PWH-HI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch.

[Table 4-1073](#) lists its power supply configurations.

Table 4-1073 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W	-	369.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 12 ● 802.3bt (60 W per port): 6
500 W	500 W	739.2 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12
650 W	-	350 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 22 ● 802.3at (30 W per port): 11 ● 802.3bt (60 W per port): 5
650 W	500 W or 650 W	700 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 23 ● 802.3bt (60 W per port): 11
500 W or 650 W	650 W		
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 13
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 14• 802.3bt (60 W per port): 7
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 14
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 12
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 24
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 12
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 24

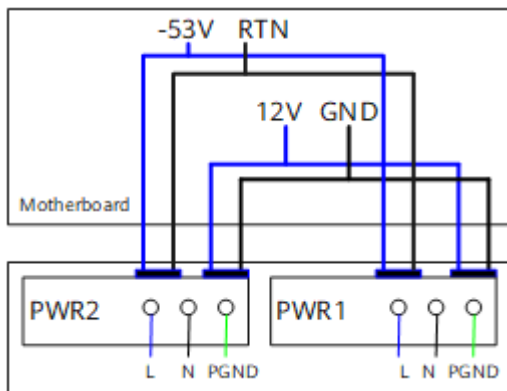
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 14
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 14

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-430 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

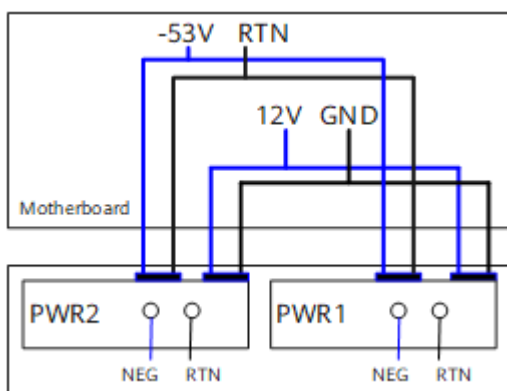
Figure 4-430 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-431 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

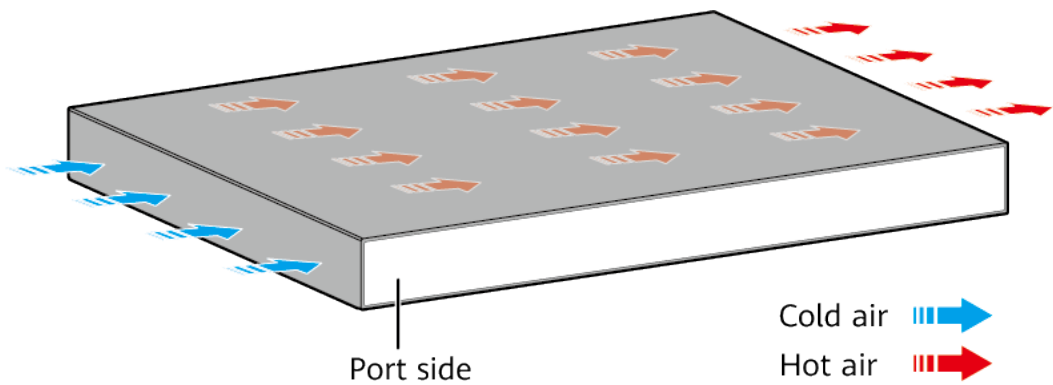
Figure 4-431 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5730-44C-PWH-HI has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1074](#) lists technical specifications of the S5730-44C-PWH-HI.

Table 4-1074 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	49.48 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	8.5 kg (18.74 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Using 650 W DC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 94 W (without card) - 100% PoE loads: 830 W (system power consumption: 130 W, PoE: 700 W, without card) ● Using 500 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 94 W (without card) - 100% PoE loads: 830 W (system power consumption: 90.8 W, PoE: 739.2 W, without card) ● Using 1150 W AC power modules or 1000 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 107.6 W (without card) - 100% PoE loads: 1596 W (system power consumption: 156 W, PoE: 1440 W, without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	Using 650 W DC or 500 W AC power modules: 65 W (without card) Using 1150 W AC or 1000 W AC power modules: 71 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 69.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02351LKB

4.22.6 S5730-44C-HI-24S

Version Mapping

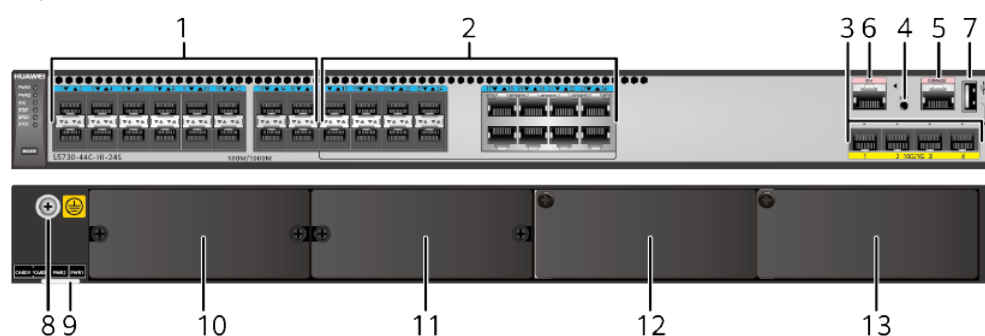
Table 4-1075 lists the mapping between the S5730-44C-HI-24S chassis and software versions.

Table 4-1075 Version mapping

Series	Model	Software Version
S5730-HI	S5730-44C-HI-24S	V200R012C00SPC110, V200R013C00 to V200R019C10 versions

Appearance and Structure

Figure 4-432 S5730-44C-HI-24S appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • GE-CWDM optical module (used only in the OADM scenario) 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario)
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) 	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	One ETH management port
7	One USB port	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>	10	<p>Rear card slot 1</p> <p>NOTE</p> <p>Cards supported:</p> <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00
11	<p>Rear card slot 2</p> <p>NOTE</p> <p>This slot is reserved for future use.</p>	12	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
13	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-1076](#) describes the attributes of a 100/1000BASE-X port.

Table 4-1076 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1077](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1077 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1078](#).

Table 4-1078 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1079](#) describes the attributes of an ETH management port.

Table 4-1079 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

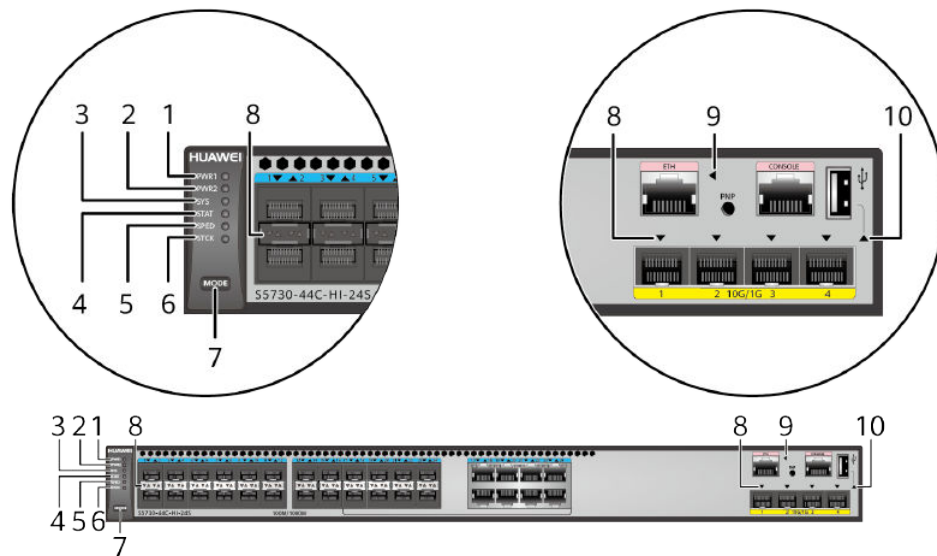
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-433 Indicators on the S5730-44C-HI-24S



NOTE

The S5730-HI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators. When an S5730-HI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 4-1080 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	<p>The switch has two power modules installed. Any of the following situations occurs in power module slot 1:</p> <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	<p>The switch has two power modules installed. Any of the following situations occurs in power module slot 2:</p> <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	In the system startup preparation phase, the SYS indicator is steady green for no more than 15 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-1081 and Table 4-1082 .		
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1081 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 4-1082 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

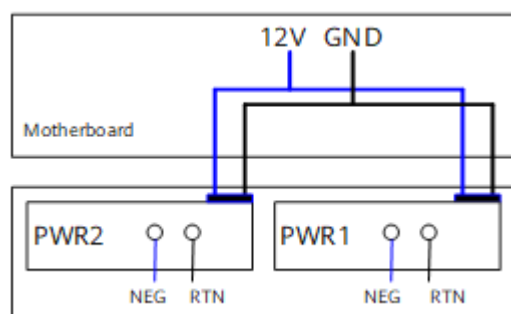
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5730-44C-HI-24S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-434 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-434 Power supply connections of dual DC power modules



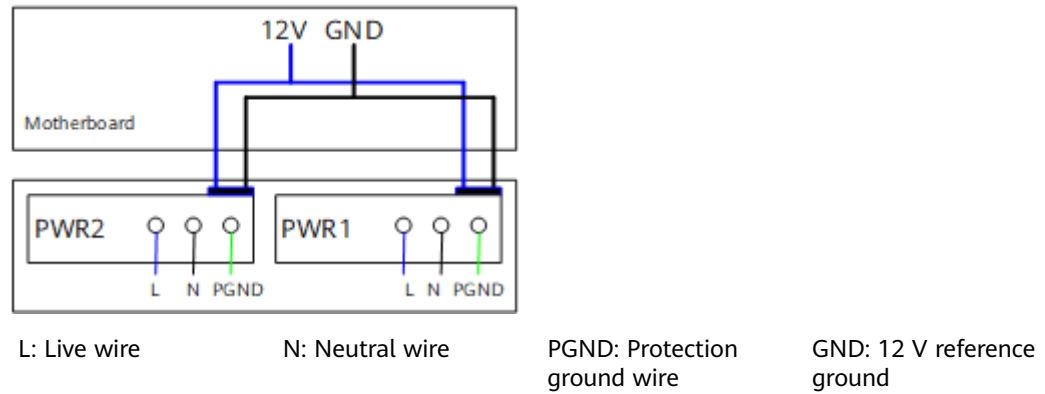
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

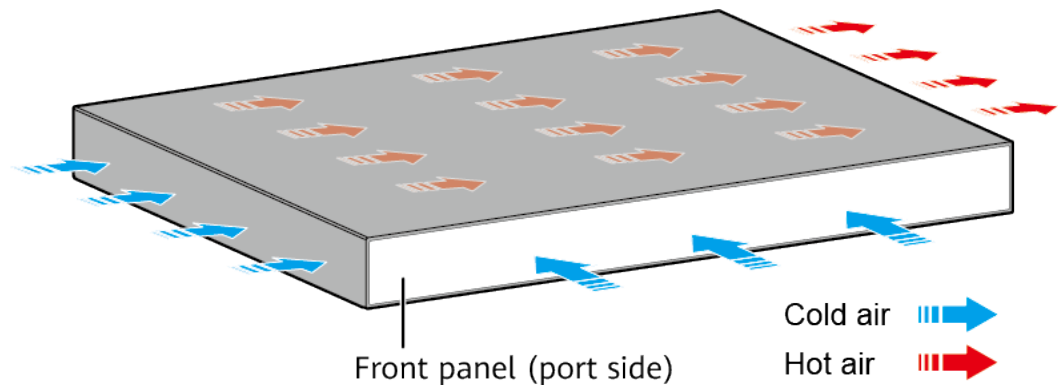
Figure 4-435 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-435 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-44C-HI-24S has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1083 lists technical specifications of the S5730-44C-HI-24S.

Table 4-1083 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	51.12 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.72 kg (21.43 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	78 W (without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	64 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02351XFR

4.22.7 S5730-60C-HI

Version Mapping

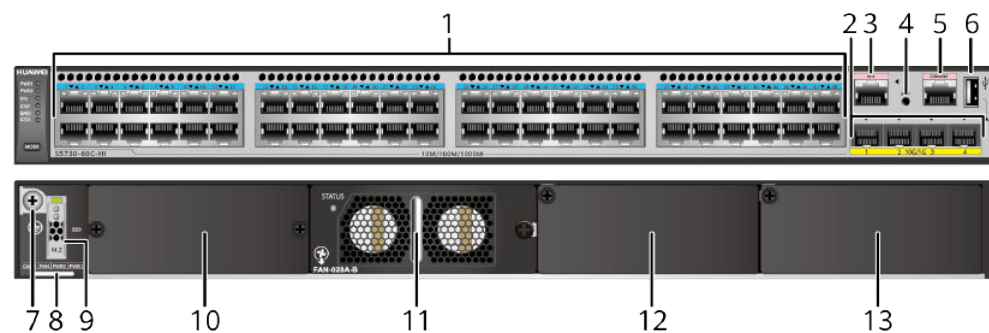
[Table 4-1084](#) lists the mapping between the S5730-60C-HI chassis and software versions.

Table 4-1084 Version mapping

Series	Model	Software Version
S5730-HI	S5730-60C-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 4-436 S5730-60C-HI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	SSD card slot NOTE Pluggable SSD card supported: SSD-240GB	10	Rear card slot NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00
11	Fan slot NOTE Applicable fan module: FAN-028A-B	12	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
13	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1085](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1085 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1086](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1086 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1087](#).

Table 4-1087 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1088](#) describes the attributes of an ETH management port.

Table 4-1088 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

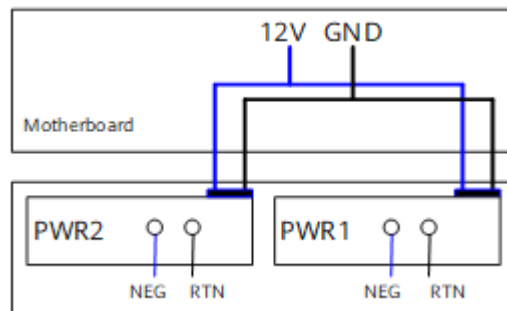
The S5730-60C-HI has similar indicators to those of the S5730-44C-PWH-HI except that the S5730-60C-HI does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-60C-HI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-437 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-437 Power supply connections of dual DC power modules



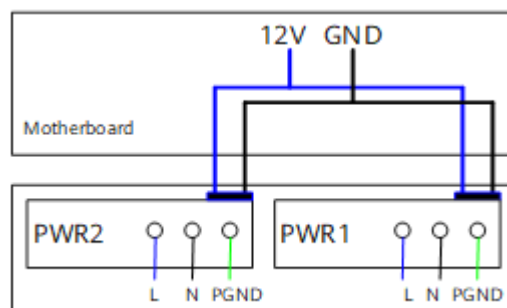
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-438 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-438 Power supply connections of dual AC power modules



L: Live wire

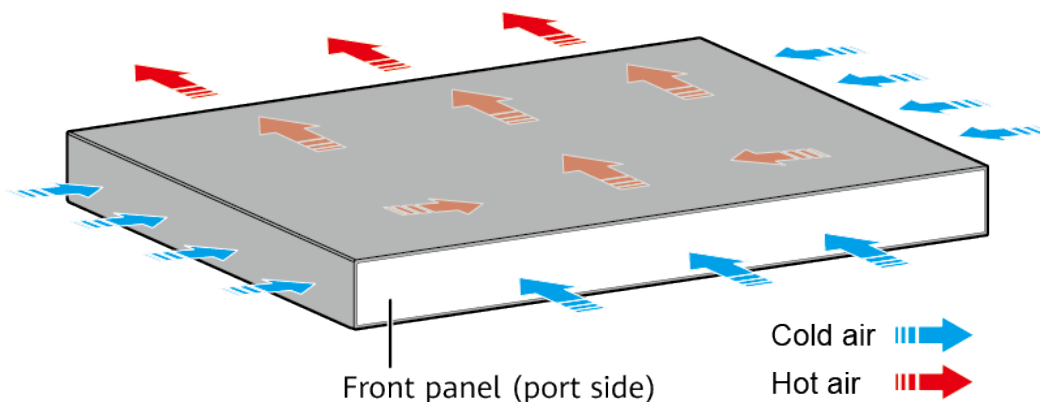
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5730-60C-HI uses a pluggable fan module for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1089](#) lists technical specifications of the S5730-60C-HI.

Table 4-1089 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	47.28 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	8.8 kg (19.40 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	87.7 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	70 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 52.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02351MQR

4.22.8 S5730-60C-PWH-HI

Version Mapping

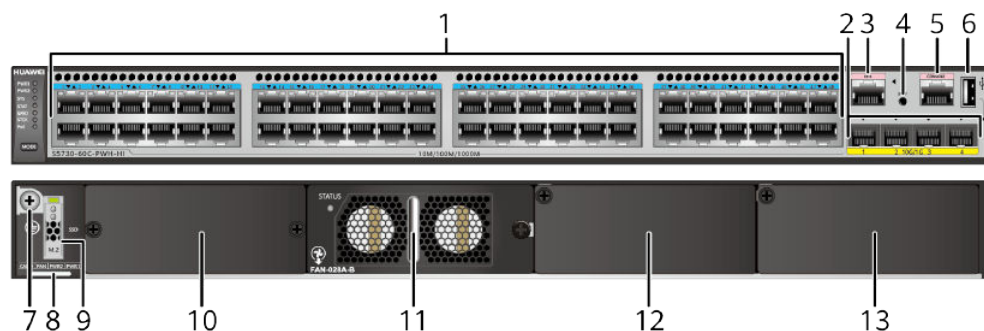
Table 4-1090 lists the mapping between the S5730-60C-PWH-HI chassis and software versions.

Table 4-1090 Version mapping

Series	Model	Software Version
S5730-HI	S5730-60C-PWH-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 4-439 S5730-60C-PWH-HI appearance



1	Forty-eight PoE+ + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	SSD card slot NOTE Pluggable SSD card supported: SSD-240GB	10	Rear card slot NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00

1 1	Fan slot NOTE Applicable fan module: FAN-028A-B	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1091](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1091 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1092](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1092 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1093](#).

Table 4-1093 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1094](#) describes the attributes of an ETH management port.

Table 4-1094 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-60C-PWH-HI has the same types of indicators as the S5730-44C-PWH-HI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-60C-PWH-HI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch. [Table 4-1095](#) lists its power supply configurations.

Table 4-1095 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12 802.3bt (60 W per port): 6
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24 802.3bt (60 W per port): 12
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26 802.3bt (60 W per port): 13
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48 802.3bt (60 W per port): 24
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 29 802.3at (30 W per port): 14 802.3bt (60 W per port): 7
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29 802.3bt (60 W per port): 14

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 25• 802.3bt (60 W per port): 12
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48• 802.3bt (60 W per port): 24
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 25• 802.3bt (60 W per port): 12
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48• 802.3bt (60 W per port): 24
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48• 802.3bt (60 W per port): 24
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48• 802.3bt (60 W per port): 24

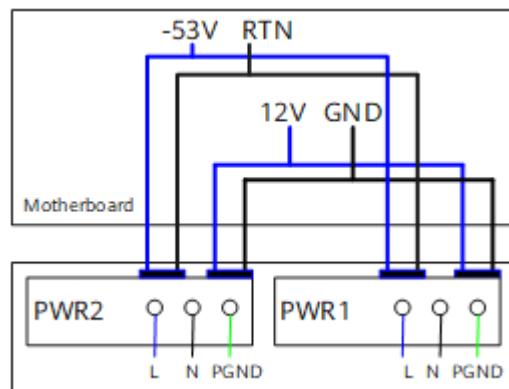
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29 802.3bt (60 W per port): 14
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29 802.3bt (60 W per port): 14

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-440 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 4-440 Power supply by dual AC PoE power modules

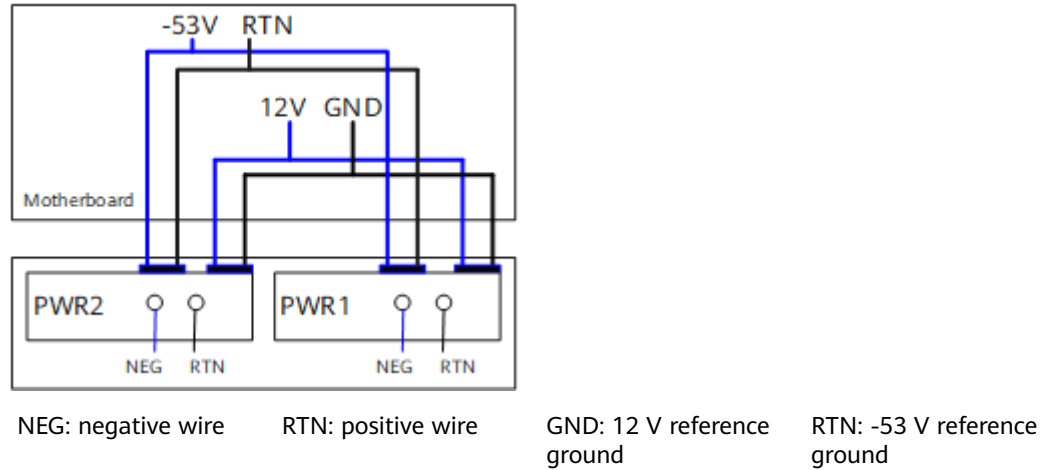


L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-441 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V

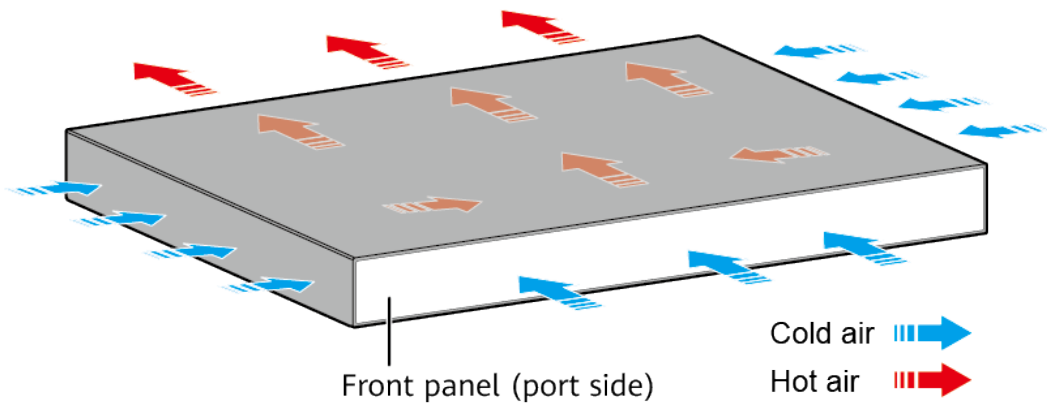
and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 4-441 Power supply connections of dual DC PoE power modules



Heat Dissipation

The S5730-60C-PWH-HI uses a pluggable fan module for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1096](#) lists technical specifications of the S5730-60C-PWH-HI.

Table 4-1096 Technical specifications

Item	Description
Memory (RAM)	4 GB

Item	Description
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.09 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	9 kg (19.84 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Using 650 W DC or 500 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 106 W (without card) - 100% PoE loads: 830 W (system power consumption: 90.8 W, PoE: 739.2 W, without card) ● Using 1150 W AC or 1000 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 119.7 W (without card) - 100% PoE loads: 1610 W (system power consumption: 170 W, PoE: 1440 W, without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	Using 650 W DC or 500 W AC power modules: 80 W (without card) Using 1150 W AC or 1000 W AC power modules: 83 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 69 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	02351MQV

4.2.2.9 S5730-60C-HI-48S

Version Mapping

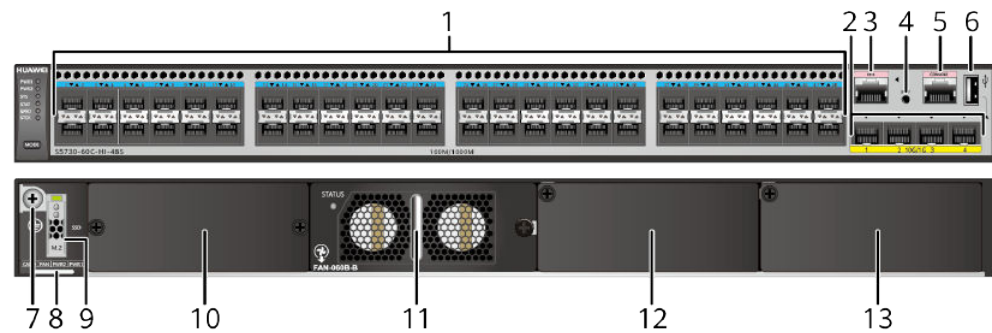
Table 4-1097 lists the mapping between the S5730-60C-HI-48S chassis and software versions.

Table 4-1097 Version mapping

Series	Model	Software Version
S5730-HI	S5730-60C-HI-48S	V200R013C00 to V200R019C10 versions

Appearance and Structure

Figure 4-442 S5730-60C-HI-48S appearance



1	<p>Forty-eight 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • GE-CWDM optical module (used only in the OADM scenario) 	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	<p>One ETH management port</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>SSD card slot</p> <p>NOTE Pluggable SSD card supported: SSD-240GB</p>	10	<p>Rear card slot</p> <p>NOTE Cards supported:</p> <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00

1 1	Fan slot NOTE Applicable fan module: 7.7 FAN-060B-B (Fan box (B, FAN panel side exhaust))	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.18 PDC-350WA-B (350 W DC Power Module) • 5.19 PAC-600WA-B (600 W AC Power Module)
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.18 PDC-350WA-B (350 W DC Power Module) • 5.19 PAC-600WA-B (600 W AC Power Module) 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-1098](#) describes the attributes of a 100/1000BASE-X port.

Table 4-1098 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1099](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1099 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1100](#).

Table 4-1100 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1101](#) describes the attributes of an ETH management port.

Table 4-1101 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-60C-HI-48S has the same types of indicators as the S5730-36C-HI-24S. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-60C-HI-48S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-443 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-443 Power supply connections of dual DC power modules

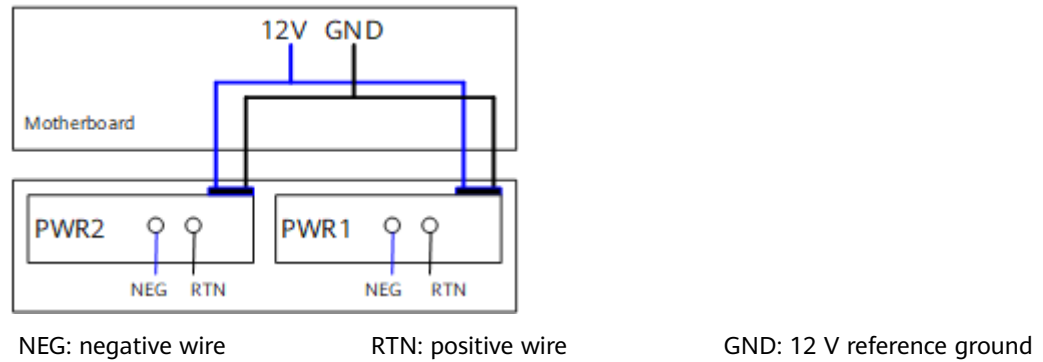
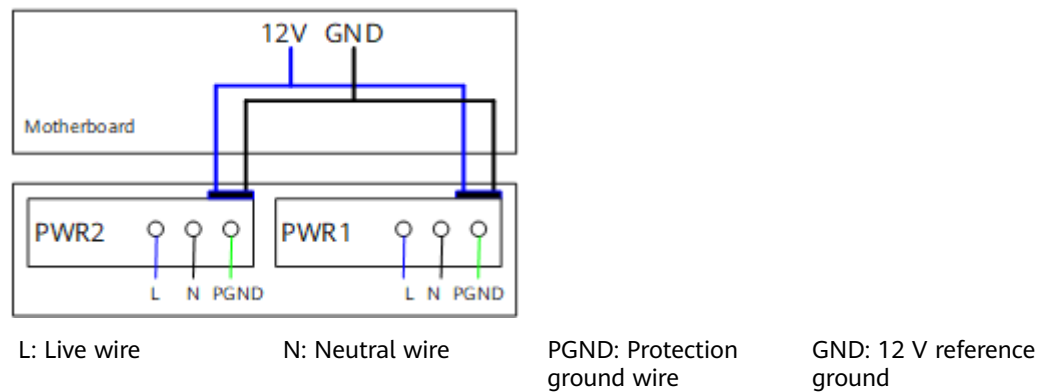


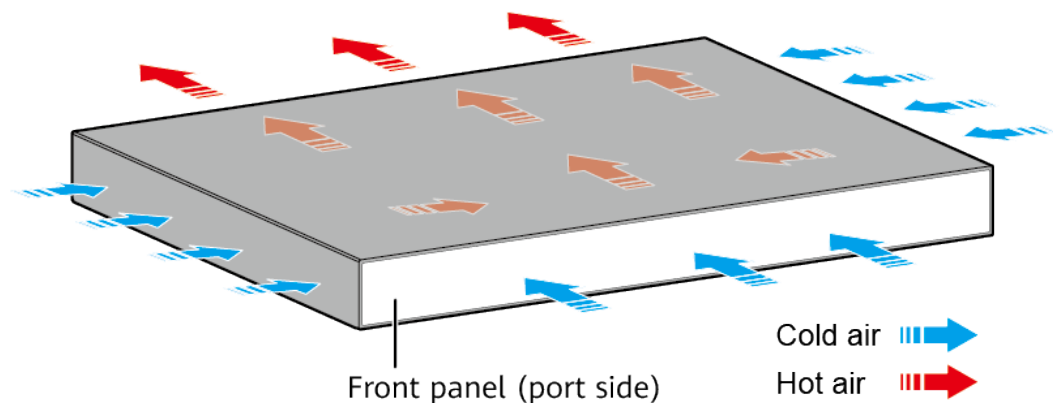
Figure 4-444 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-444 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-60C-HI-48S uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1102](#) lists specifications of the S5730-60C-HI-48S.

Table 4-1102 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45.53 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	N/A
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.71 kg (21.41 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	136 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	100 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 67.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02351XFS

4.22.10 S5730-68C-HI

Version Mapping

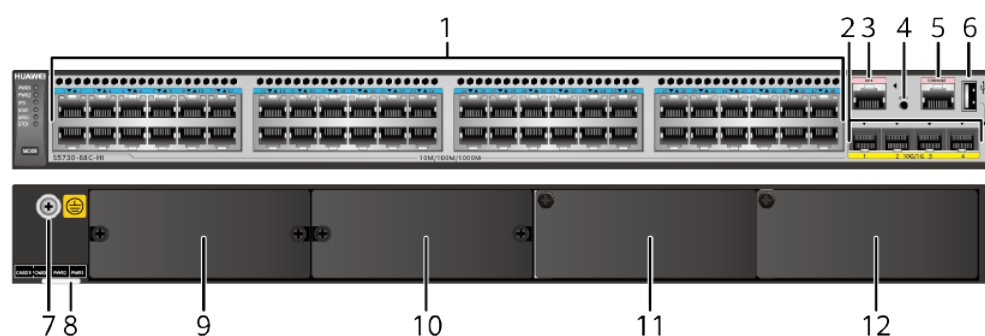
Table 4-1103 lists the mapping between the S5730-68C-HI chassis and software versions.

Table 4-1103 Version mapping

Series	Model	Software Version
S5730-HI	S5730-68C-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 4-445 S5730-68C-HI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot 1 NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	10	Rear card slot 2 NOTE This slot is reserved for future use.
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1104](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1104 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1105](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1105 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1106](#).

Table 4-1106 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1107](#) describes the attributes of an ETH management port.

Table 4-1107 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

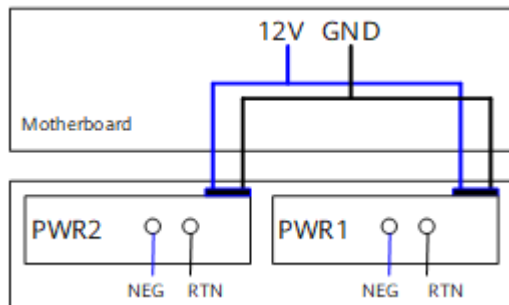
The S5730-68C-HI has similar indicators to those of the S5730-44C-PWH-HI except that the S5730-68C-HI does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-68C-HI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 4-446 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-446 Power supply connections of dual DC power modules



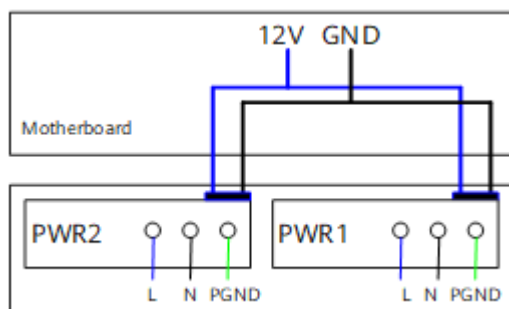
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 4-447 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-447 Power supply connections of dual AC power modules



L: Live wire

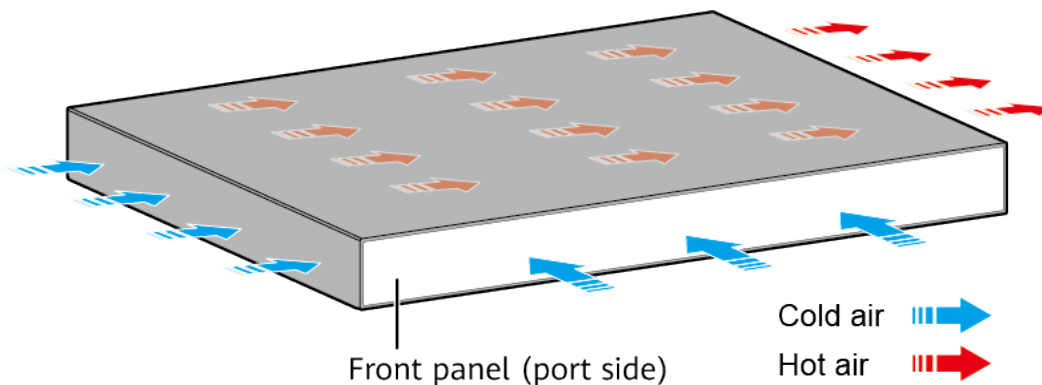
N: Neutral wire

PGND: Protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5730-68C-HI has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1108 lists technical specifications of the S5730-68C-HI.

Table 4-1108 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	49.29 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)

Item	Description
Weight (with packaging)	8.5 kg (18.74 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	88.05 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	62 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 55.6 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02351MQT

4.22.11 S5730-68C-PWH-HI

Version Mapping

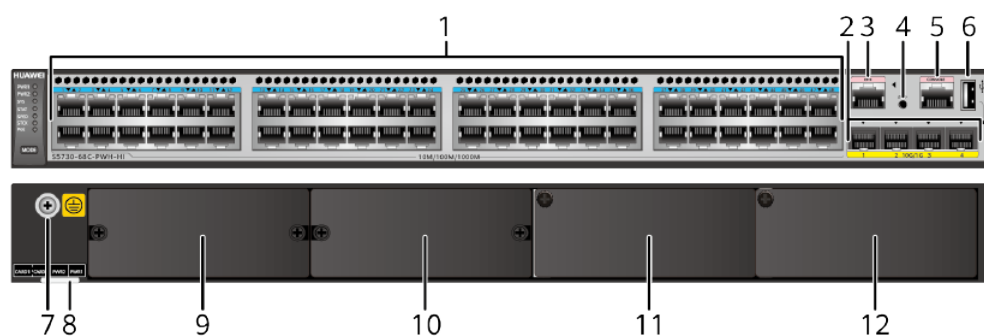
Table 4-1109 lists the mapping between the S5730-68C-PWH-HI chassis and software versions.

Table 4-1109 Version mapping

Series	Model	Software Version
S5730-HI	S5730-68C-PWH-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 4-448 S5730-68C-PWH-HI appearance



1	Forty-eight PoE+ + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot 1 NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	10	Rear card slot 2 NOTE This slot is reserved for future use.

1 1	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	1 2	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1110](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1110 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1111](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1111 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1112](#).

Table 4-1112 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1113](#) describes the attributes of an ETH management port.

Table 4-1113 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-68C-PWH-HI has the same types of indicators as the S5730-44C-PWH-HI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-68C-PWH-HI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch. [Table 4-1114](#) lists its power supply configurations.

Table 4-1114 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12 802.3bt (60 W per port): 6
500 W	500 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24 802.3bt (60 W per port): 12

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
650 W	-	350 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 22 ● 802.3at (30 W per port): 11 ● 802.3bt (60 W per port): 5
650 W	500 W or 650 W	700 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 45 ● 802.3at (30 W per port): 23 ● 802.3bt (60 W per port): 11
500 W or 650 W	650 W		
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 26 ● 802.3bt (60 W per port): 13
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 24
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 29 ● 802.3at (30 W per port): 14 ● 802.3bt (60 W per port): 7
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 29 ● 802.3bt (60 W per port): 14

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 25 • 802.3bt (60 W per port): 12
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48 • 802.3bt (60 W per port): 24
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 25 • 802.3bt (60 W per port): 12
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48 • 802.3bt (60 W per port): 24
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48 • 802.3bt (60 W per port): 24
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48 • 802.3bt (60 W per port): 24

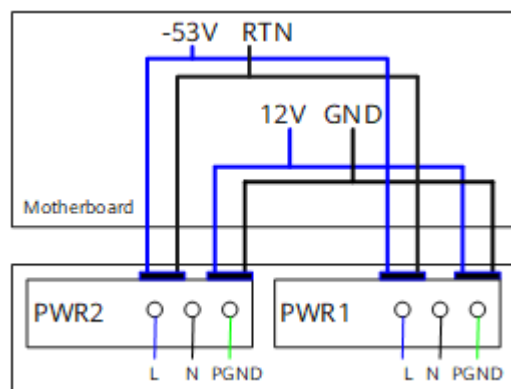
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29 802.3bt (60 W per port): 14
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29 802.3bt (60 W per port): 14

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 4-449 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 4-449 Power supply by dual AC PoE power modules

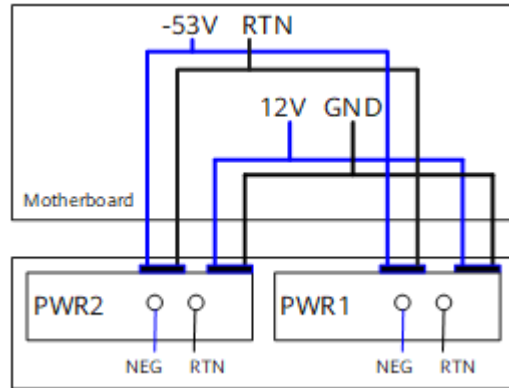


L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 4-450 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V

and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 4-450 Power supply connections of dual DC PoE power modules



NEG: negative wire

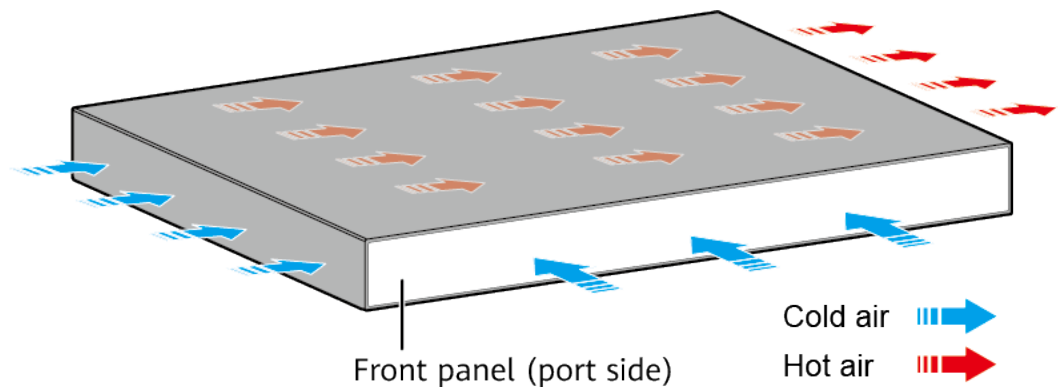
RTN: positive wire

GND: 12 V reference ground

RTN: -53 V reference ground

Heat Dissipation

The S5730-68C-PWH-HI has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1115 lists technical specifications of the S5730-68C-PWH-HI.

Table 4-1115 Technical specifications

Item	Description
Memory (RAM)	2 GB

Item	Description
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	48.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	8.7 kg (19.18 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Using 650 W DC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 106 W (without card) - 100% PoE loads: 830 W (system power consumption: 130 W, PoE: 700 W, without card) ● Using 500 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 106 W (without card) - 100% PoE loads: 830 W (system power consumption: 90.8 W, PoE: 739.2 W, without card) ● Using 1150 W AC or 1000 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 116.3 W (without card) - 100% PoE loads: 1608 W (system power consumption: 168 W, PoE: 1440 W, without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	Using 650 W DC or 500 W AC power modules: 72 W (without card) Using 1150 W AC or 1000 W AC power modules: 76 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 69.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification

Item	Description
Part number	02351LKE

4.22.12 S5730-68C-HI-48S

Version Mapping

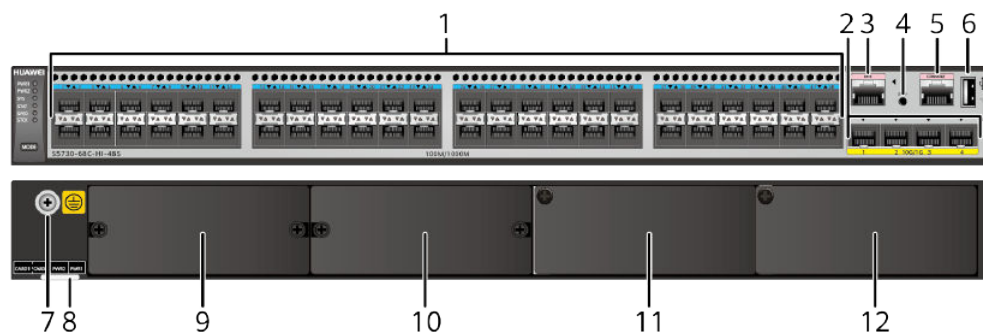
Table 4-1116 lists the mapping between the S5730-68C-HI-48S chassis and software versions.

Table 4-1116 Version mapping

Series	Model	Software Version
S5730-HI	S5730-68C-HI-48S	V200R013C00 to V200R019C10 versions

Appearance and Structure

Figure 4-451 S5730-68C-HI-48S appearance



1	<p>Forty-eight 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • GE-CWDM optical module (used only in the OADM scenario) 	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	<p>One ETH management port</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Rear card slot 1</p> <p>NOTE Cards supported:</p> <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	10	<p>Rear card slot 2</p> <p>NOTE This slot is reserved for future use.</p>

1 1	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.18 PDC-350WA-B (350 W DC Power Module) • 5.19 PAC-600WA-B (600 W AC Power Module) 	1 2	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.18 PDC-350WA-B (350 W DC Power Module) • 5.19 PAC-600WA-B (600 W AC Power Module)
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Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-1117](#) describes the attributes of a 100/1000BASE-X port.

Table 4-1117 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1118](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1118 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1119](#).

Table 4-1119 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1120](#) describes the attributes of an ETH management port.

Table 4-1120 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to

the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

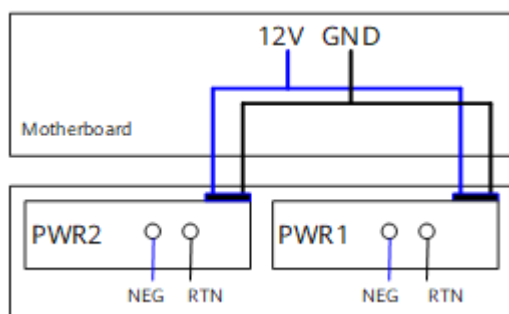
The S5730-68C-HI-48S has the same types of indicators as the S5730-36C-HI-24S. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-68C-HI-48S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 4-452](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-452 Power supply connections of dual DC power modules



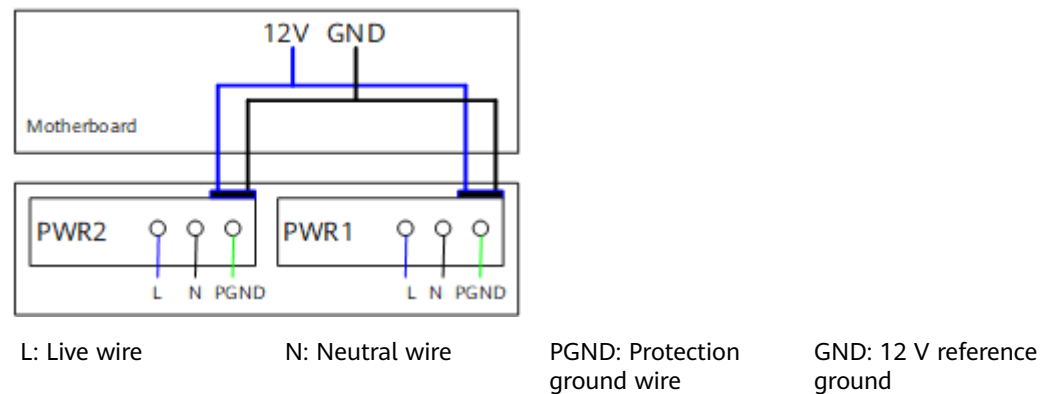
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

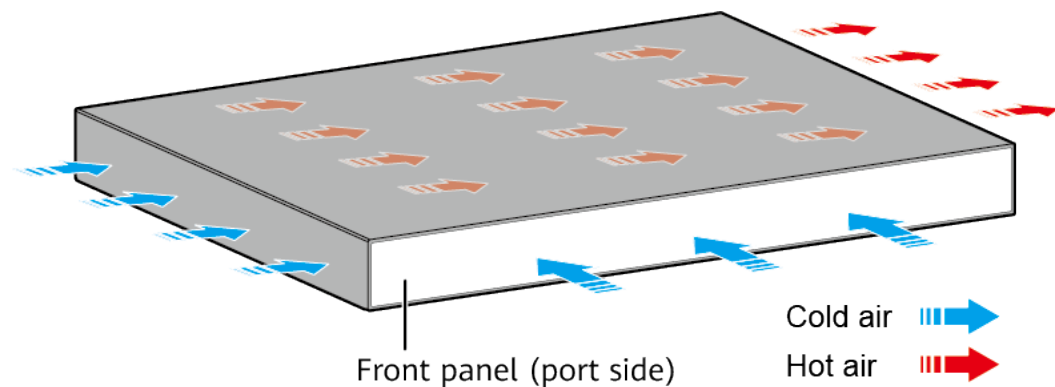
[Figure 4-453](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 4-453 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-68C-HI-48S has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1121 lists specifications of the S5730-68C-HI-48S.

Table 4-1121 Technical specifications

Item	Parameter
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.49 years

Item	Parameter
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	N/A
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.39 kg (20.7 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W (without card)

Item	Parameter
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	100 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 64.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02351XFT

4.23 S5731-L

4.23.1 S5731-L4P2HW-RUA

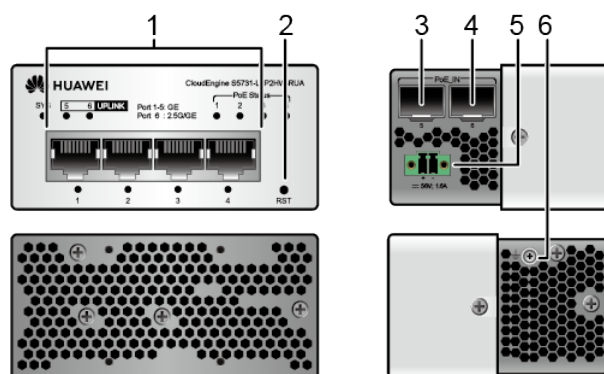
Overview

Table 4-1122 Basic information about the S5731-L4P2HW-RUA

Item	Details
Description	S5731-L4P2HW-RUA (4*10/100/1000BASE-T ports, PoE++, 2*GE hybrid optical-electrical SFP ports, AC power, power adapter)
Part Number	98011766
Model	S5731-L4P2HW-RUA
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-454 S5731-L4P2HW-RUA appearance



1	Four 10/100/1000BASE-T PoE++ ports	2	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.
---	------------------------------------	---	--

3	<p>One GE hybrid optical-electrical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The port can receive PoE power from a central switch through the second-generation hybrid cable.</p> <p>When using a hybrid cable to receive power, you must use the pigtails or jumpers and hybrid modules matching the second-generation hybrid cable.</p>	4	<p>One GE/2.5GE hybrid optical-electrical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.</p> <p>The port can receive PoE power from a central switch through the second-generation hybrid cable.</p> <p>When using a hybrid cable to receive power, you must use the pigtails or jumpers and hybrid modules matching the second-generation hybrid cable.</p>
5	<p>Power adapter socket (phoenix connector)</p> <p>NOTE</p> <p>Use the power adapter (56 V, 1.6 A) delivered with the device.</p>	6	<p>Ground screw</p>

Ports

Table 4-1123 Ports on the S5731-L4P2HW-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE++ port	RJ45	<p>A 10/100/1000BASE-T PoE++ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.</p> <p>The port supports the PoE function.</p>	<p>Ethernet cable</p>

Port	Connector Type	Description	Available Components
GE hybrid optical-electrical port	SFP	A GE hybrid optical-electrical port can send and receive data at 1000 Mbit/s. It can receive PoE power from a central switch through a hybrid cable.	<ul style="list-style-type: none"> ● Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported) ● GE SFP Hybrid Modules ● Second-generation hybrid cable

Port	Connector Type	Description	Available Components
GE/2.5GE hybrid optical-electrical port	SFP	A GE/2.5GE hybrid optical-electrical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s. It can receive PoE power from a central switch through a hybrid cable.	<ul style="list-style-type: none"> • Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported) • GE SFP Hybrid Modules • 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions) • 2.5GE eSFP Hybrid Modules (supported in V200R023C00 or V600R023C00 and later versions) • Second-generation hybrid cable

Indicators and Buttons

The S5731-L4P2HW-RUA has similar indicators to those on the S5731-L8P2HT-RUA. For details, see the S5731-L8P2HT-RUA.

Power Supply System

The remote unit supports the following power supply modes:

- Powered by an external power adapter

- Powered by a central switch using hybrid cables

When different power supply modes are used at the same time, the system preferentially uses the power adapter for power supply. The cold backup mode is used between different power supply modes and cannot supply power to the remote unit at the same time. The two uplink ports have no default priority, and the connection time is used as the priority.

The remote unit can provide PoE power for external PDs. The PoE power supply capability varies according to the power supply mode.

Table 4-1124 Power supply configurations

Power Supply Mode	Available PoE Power	Maximum Number of Ports (Fully Loaded)	Remark
Powered by an external power adapter	77 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 4 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1 	-
Powered by a central switch	Forcible power supply disabled (default): max 60 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 3 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1 	<ul style="list-style-type: none"> • If no PD is connected to the remote unit, the central switch only supplies power to the remote unit. The PoE standard of the central switch must be 802.3at at least. • If PDs are connected to the remote unit, the central switch supplies power to the remote unit and the connected PDs. It is recommended that the output PoE standard of the central switch be 802.3bt and the output power be 90 W. If the 802.3at standard is used, the available power of the PDs connected to the remote unit may be insufficient.
	Forcible power supply enabled: max 83 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 4 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1 	

NOTICE

When the remote unit is powered by the central switch, the total power consumption of the remote unit and its connected PDs cannot exceed 71.3 W. If the power consumption exceeds 71.3 W, the remote unit and its connected PDs will be powered off and restarted.

When the remote unit is powered by the central switch, the maximum available PoE power in the preceding table can be provided only when the following conditions are met:

- When forcible power supply is disabled by default:
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
- When forcible power supply is enabled (using the **poeforce-power port** command):
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
 - The central switch and the remote unit must be connected for a short distance (less than 8 m, with the line loss ignored). If the distance between the central switch and the remote unit is longer than 8 m and the PD is supplied with power based on the maximum power supply capability displayed on the central switch, the remote unit and the connected PD may be powered off and restarted.
 - The output voltage of the power module used by the central switch cannot be lower than 55.5 V.

The actual available PoE power provided by the remote unit is calculated based on the cabling distance between the central switch and the remote unit, the cabling distance between the remote unit and the connected PD, the maximum power consumption of the remote unit, the PoE output voltage of the central switch, and PoE class level output by the central switch.

If the power output of the remote unit is manually configured to comply with 802.3at or 802.3af, the PD connected to the remote unit will be power-cycled when the remote unit is reset due to a cause other than power-off.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1125 Technical specifications of the S5731-L4P2HW-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 45.0 mm x 90.0 mm x 75.0 mm (1.77 in. x 3.54 in. x 2.95 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 45.0 mm x 90.0 mm x 75.0 mm (1.77 in. x 3.54 in. x 2.95 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	92.0 mm x 340.0 mm x 222.0 mm (3.62 in. x 13.39 in. x 8.74 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	0.98 kg (2.16 lb)
Weight with packaging [kg(lb)]	1.36 kg (3.0 lb)
Typical power consumption [W]	6.67 W (device) 8.26 W (device + power adapter)
Typical heat dissipation [BTU/hour]	22.76 (device) 28.18 (device + power adapter)
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 7.00 W (device)/8.59 W (device + power adapter) Full PoE load: 88.5 W (PoE: 77 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 23.88 (device)/29.31 (device + power adapter) Full PoE load: 301.97
Static power consumption [W]	5.62 W
MTBF [years]	75.17 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0

Item	Specification
Number of fans modules	0
Redundant power supply	Cold backup of hybrid optical-electrical ports and power adapters, cold backup between two hybrid optical-electrical ports, and preferential power supply by power adapters
Long-term operating temperature [°C(°F)]	-5°C to +40°C (41°F to 104°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the device ranges from -5°C to +40°C (23°F to 104°F) when the following optical modules are used: - GE industrial optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	<ul style="list-style-type: none"> ● Power adapter ● PoE_IN
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz PoE input: 56 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz PoE input: 54-57 V DC
Maximum input current [A]	1.8 A
Memory	--
Flash memory	--
Console port	Not supported

Item	Specification
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.23.2 S5731-L4T2S-RUA

Overview

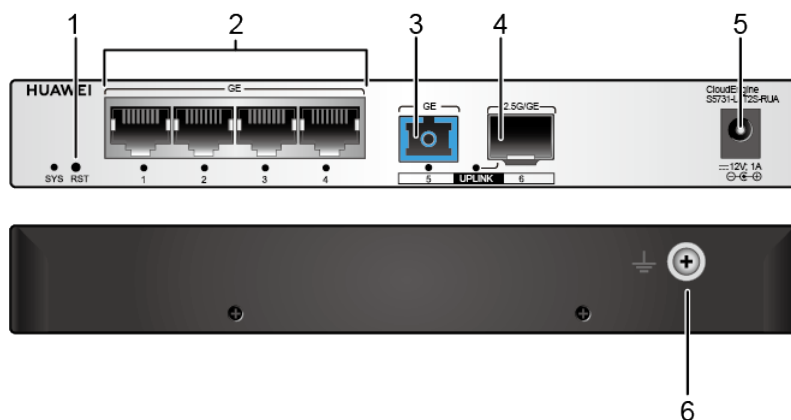
Table 4-1126 Basic information about the S5731-L4T2S-RUA

Item	Details
Description	S5731-L4T2S-RUA (4*10/100/1000BASE-T ports, 1*GE SFP port, 1*GE port with an SC connector, TX1310 nm/RX1490 nm, AC power, power adapter)
Part Number	98011768
Model	S5731-L4T2S-RUA
First supported version	V200R021C10SPC500 V600R022C10

Item	Details
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-455 S5731-L4T2S-RUA appearance



1	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.	2	Four 10/100/1000BASE-T ports
3	One GE optical port NOTE The port is an uplink port. The port has a built-in single-fiber bidirectional optical module by default and cannot be removed.	4	One GE/2.5GE optical port NOTE The port is an uplink port. The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.
5	Power adapter socket NOTE Use the power adapter (12 V, 1 A) delivered with the device.	6	Ground screw

Ports

Table 4-1127 Ports on the S5731-L4T2S-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none"> GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Port	Connector Type	Description	Available Components
GE optical port	SC	<p>A GE optical port can send and receive data at 1000 Mbit/s.</p> <p>The port has a built-in single-fiber bidirectional optical module by default and cannot be removed.</p> <p>Specifications of the built-in optical module: The rate is GE, the center wavelength is TX1310 nm or RX1490 nm, the connector type is SC, and the maximum transmission distance is 10 km.</p> <p>Only the SFP-GE-LX-SM1490-BIDI (RX1310nm/TX1490nm) optical module can be used on the peer port.</p>	-

Indicators and Buttons

The S5731-L4T2S-RUA has similar indicators to those on the S5731-L8P2HT-RUA except that the S5731-L4T2S-RUA does not have PoE indicators. For details, see the S5731-L8P2HT-RUA.

Power Supply System

The remote unit is powered by the power adapter delivered with the device.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1128 Technical specifications of the S5731-L4T2S-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 27.0 mm x 185.0 mm x 115.0 mm (1.06 in. x 7.28 in. x 4.53 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 27.0 mm x 185.0 mm x 115.0 mm (1.06 in. x 7.28 in. x 4.53 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 342.0 mm x 228.0 mm (3.23 in. x 13.46 in. x 8.98 in.)
Chassis height [U]	0.61 U
Weight without packaging [kg(lb)]	0.72 kg (1.59 lb)
Weight with packaging [kg(lb)]	1.02 kg (2.25 lb)
Typical power consumption [W]	4.88 W (device) 5.08 W (device + power adapter)
Typical heat dissipation [BTU/hour]	16.65 (device) 17.33 (device + power adapter)
Maximum power consumption [W]	5.06 W (device) 5.26 W (device + power adapter)
Maximum heat dissipation [BTU/hour]	17.27 (device) 19.75 (device + power adapter)
Static power consumption [W]	2.62 W
MTBF [years]	83.23 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0

Item	Specification
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules: - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz Power adapter output: 12 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz
Maximum input current [A]	1 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±6 kV

Item	Specification
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.23.3 S5731-L4T2ST-RUA

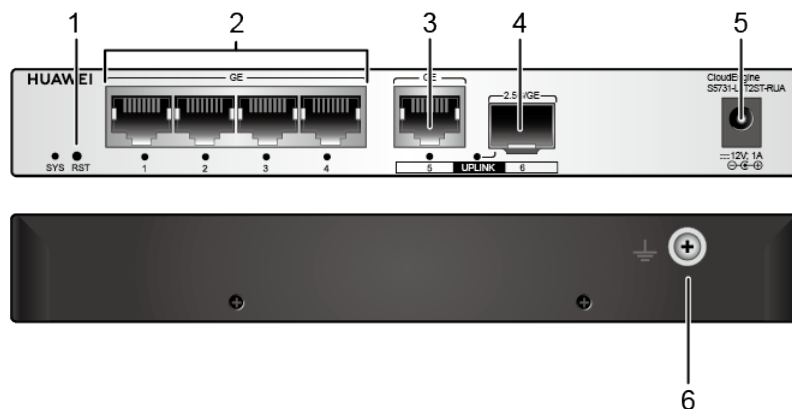
Overview

Table 4-1129 Basic information about the S5731-L4T2ST-RUA

Item	Details
Description	S5731-L4T2ST-RUA (4*10/100/1000BASE-T ports, 1*GE SFP port, 1*10/100/1000BASE-T port, AC power, power adapter)
Part Number	98011770
Model	S5731-L4T2ST-RUA
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-456 S5731-L4T2ST-RUA appearance



1	<p>One RST button</p> <p>NOTICE</p> <p>To reset the device, press and hold down the button for less than 6s.</p>	2	<p>Four 10/100/1000BASE-T ports</p>
3	<p>One 10/100/1000BASE-T port</p> <p>NOTE</p> <p>The port is an uplink port.</p>	4	<p>One GE/2.5GE optical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.</p>
5	<p>Power adapter socket</p> <p>NOTE</p> <p>Use the power adapter (12 V, 1 A) delivered with the device.</p>	6	<p>Ground screw</p>

Ports

Table 4-1130 Ports on the S5731-L4T2ST-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Indicators and Buttons

The S5731-L4T2ST-RUA has similar indicators to those on the S5731-L8P2HT-RUA except that the S5731-L4T2ST-RUA does not have PoE indicators. For details, see the S5731-L8P2HT-RUA.

Power Supply System

The remote unit is powered by the power adapter delivered with the device.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1131 Technical specifications of the S5731-L4T2ST-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 27.0 mm x 185.0 mm x 115.0 mm (1.06 in. x 7.28 in. x 4.53 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 27.0 mm x 185.0 mm x 115.0 mm (1.06 in. x 7.28 in. x 4.53 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 342.0 mm x 228.0 mm (3.23 in. x 13.46 in. x 8.98 in.)
Chassis height [U]	0.61 U
Weight without packaging [kg(lb)]	0.74 kg (1.63 lb)
Weight with packaging [kg(lb)]	1.02 kg (2.25 lb)
Typical power consumption [W]	4.88 W (device) 5.08 W (device + power adapter)
Typical heat dissipation [BTU/hour]	16.65 (device) 17.33 (device + power adapter)
Maximum power consumption [W]	5.06 W (device) 5.26 W (device + power adapter)
Maximum heat dissipation [BTU/hour]	17.27 (device) 17.95 (device + power adapter)
Static power consumption [W]	2.62 W
MTBF [years]	83.23 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0

Item	Specification
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules: - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz Power adapter output: 12 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz
Maximum input current [A]	1 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±6 kV

Item	Specification
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.23.4 S5731-L4P2S-RUA

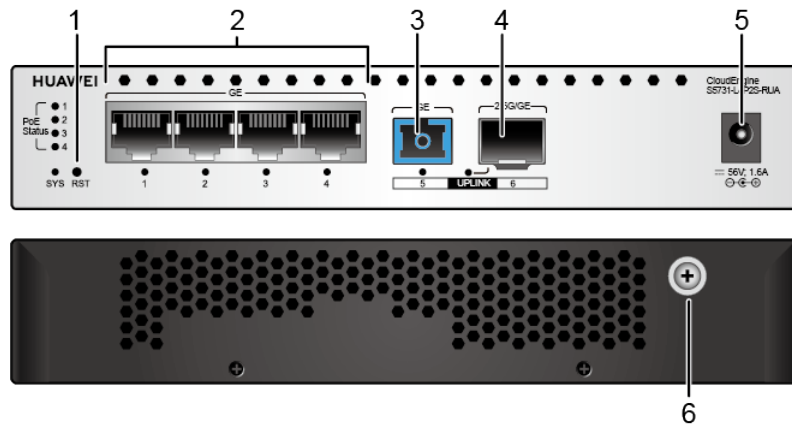
Overview

Table 4-1132 Basic information about the S5731-L4P2S-RUA

Item	Details
Description	S5731-L4P2S-RUA (4*10/100/1000BASE-T ports, PoE++, 1*GE SFP port, 1*GE port with an SC connector, TX1310 nm/RX1490 nm, AC power, power adapter)
Part Number	98011772
Model	S5731-L4P2S-RUA
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-457 S5731-L4P2S-RUA appearance



1	<p>One RST button</p> <p>NOTICE</p> <p>To reset the device, press and hold down the button for less than 6s.</p>	2	<p>Four 10/100/1000BASE-T PoE++ ports</p>
3	<p>One GE optical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The port has a built-in single-fiber bidirectional optical module by default and cannot be removed.</p>	4	<p>One GE/2.5GE optical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.</p>
5	<p>Power adapter socket</p> <p>NOTE</p> <p>Use the power adapter (56 V, 1.6 A) delivered with the device.</p>	6	<p>Ground screw</p>

Ports

Table 4-1133 Ports on the S5731-L4P2S-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE++ port	RJ45	A 10/100/1000BASE-T PoE++ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)• 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Port	Connector Type	Description	Available Components
GE optical port	SC	<p>A GE optical port can send and receive data at 1000 Mbit/s.</p> <p>The port has a built-in single-fiber bidirectional optical module by default and cannot be removed.</p> <p>Specifications of the built-in optical module: The rate is GE, the center wavelength is TX1310 nm or RX1490 nm, the connector type is SC, and the maximum transmission distance is 10 km.</p> <p>Only the SFP-GE-LX-SM1490-BIDI (RX1310nm/TX1490nm) optical module can be used on the peer port.</p>	-

Indicators and Buttons

The S5731-L4P2S-RUA has similar indicators to those on the S5731-L8P2HT-RUA. For details, see the S5731-L8P2HT-RUA.

Power Supply System

The remote unit uses the power adapter delivered with the device to supply power to the remote unit and the connected PDs.

Table 4-1134 Power supply configurations

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External power adapter	77 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 4 ● 802.3at (30 W per port): 2 ● 802.3bt (60 W per port): 1

 **NOTE**

If the power output of the remote unit is manually configured to comply with 802.3at or 802.3af, the PD connected to the remote unit will be power-cycled when the remote unit is reset due to a cause other than power-off.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1135 Technical specifications of the S5731-L4P2S-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	<p>Basic dimensions (excluding the parts protruding from the body): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.)</p> <p>Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.)</p>
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 350.0 mm x 222.0 mm (3.23 in. x 13.78 in. x 8.74 in.)
Chassis height [U]	0.855 U
Weight without packaging [kg(lb)]	1.12 kg (2.47 lb)
Weight with packaging [kg(lb)]	1.46 kg (3.22 lb)
Typical power consumption [W]	6.82 W (device) 8.30 W (device + power adapter)
Typical heat dissipation [BTU/hour]	23.27 (device) 28.32 (device + power adapter)

Item	Specification
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 7.00 W (device)/8.48 W (device + power adapter) Full PoE load: 88.0 W (PoE: 77 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 23.88 (device)/28.94 (device + power adapter) Full PoE load: 300.27
Static power consumption [W]	4.88 W
MTBF [years]	74.48 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.).</p> <p>The device cannot start when the temperature is lower than 0°C (32°F).</p> <p>The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules:</p> <ul style="list-style-type: none"> - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)

Item	Specification
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100–240 V AC; 50/60 Hz Power adapter output: 56 V DC
Input voltage range [V]	Power adapter input: 90–290 V AC; 47–63 Hz
Maximum input current [A]	1.6 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.23.5 S5731-L4P2ST-RUA

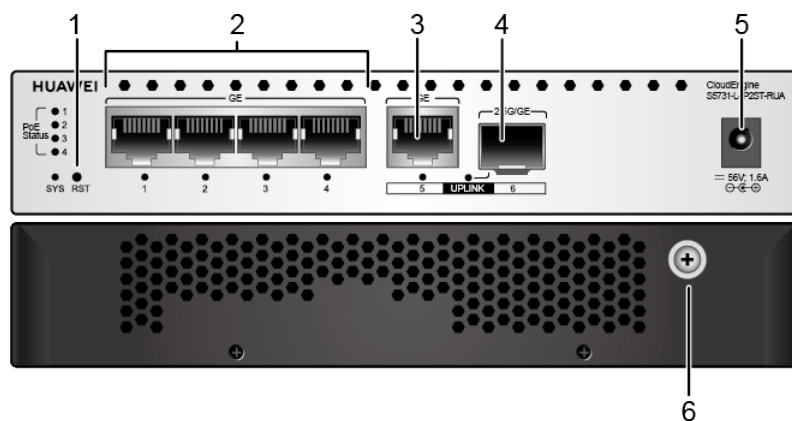
Overview

Table 4-1136 Basic information about the S5731-L4P2ST-RUA

Item	Details
Description	S5731-L4P2ST-RUA (4*10/100/1000BASE-T ports, PoE++, 1*GE SFP port, 1*10/100/1000BASE-T port, AC power, power adapter)
Part Number	98011774
Model	S5731-L4P2ST-RUA
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-458 S5731-L4P2ST-RUA appearance



1	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.	2	Four 10/100/1000BASE-T PoE++ ports
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3	One 10/100/1000BASE-T port NOTE The port is an uplink port.	4	One GE/2.5GE optical port NOTE The port is an uplink port. The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.
5	Power adapter socket NOTE Use the power adapter (56 V, 1.6 A) delivered with the device.	6	Ground screw

Ports

Table 4-1137 Ports on the S5731-L4P2ST-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE++ port	RJ45	A 10/100/1000BASE-T PoE++ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Indicators and Buttons

The S5731-L4P2ST-RUA has similar indicators to those on the S5731-L8P2HT-RUA. For details, see the S5731-L8P2HT-RUA.

Power Supply System

The remote unit uses the power adapter delivered with the device to supply power to the remote unit and the connected PDs.

Table 4-1138 Power supply configurations

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External power adapter	77 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 4 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1

NOTE

If the power output of the remote unit is manually configured to comply with 802.3at or 802.3af, the PD connected to the remote unit will be power-cycled when the remote unit is reset due to a cause other than power-off.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1139 Technical specifications of the S5731-L4P2ST-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 350.0 mm x 222.0 mm (3.23 in. x 13.78 in. x 8.74 in.)
Chassis height [U]	0.855 U
Weight without packaging [kg(lb)]	1.14 kg (2.51 lb)
Weight with packaging [kg(lb)]	1.46 kg (3.22 lb)
Typical power consumption [W]	6.80 W (device) 7.68 W (device + power adapter)
Typical heat dissipation [BTU/hour]	23.20 (device) 26.21 (device + power adapter)
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 7.00 W (device)/7.88 W (device + power adapter) Full PoE load: 88.0 W (PoE: 77 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 23.88 (device)/26.89 (device + power adapter) Full PoE load: 300.27
Static power consumption [W]	4.68 W
MTBF [years]	78.74 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30

Item	Specification
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules: - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz Power adapter output: 56 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz
Maximum input current [A]	1.6 A
Memory	--
Flash memory	--
Console port	Not supported

Item	Specification
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.23.6 S5731-L4P2HT-RUA

Overview

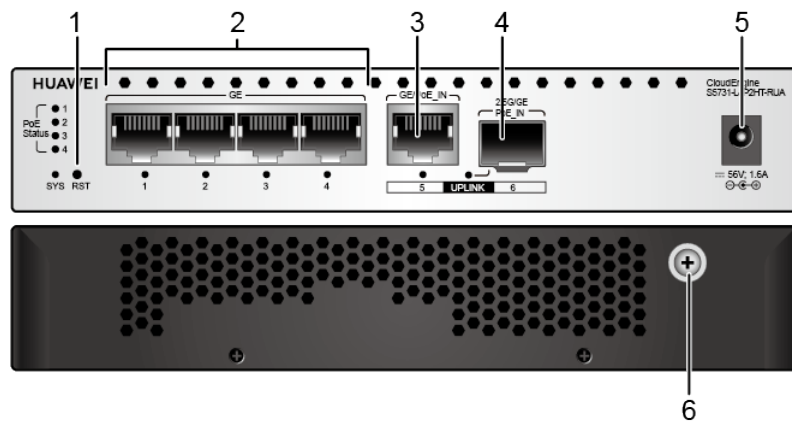
Table 4-1140 Basic information about the S5731-L4P2HT-RUA

Item	Details
Description	S5731-L4P2HT-RUA (4*10/100/1000BASE-T ports, PoE++, 1*GE hybrid optical-electrical SFP port, 1*10/100/1000BASE-T port, PoE input)
Part Number	98011776
Model	S5731-L4P2HT-RUA
First supported version	V200R021C10SPC500 V600R022C10

Item	Details
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-459 S5731-L4P2HT-RUA appearance



1	<p>One RST button</p> <p>NOTICE</p> <p>To reset the device, press and hold down the button for less than 6s.</p>	2	<p>Four 10/100/1000BASE-T PoE++ ports</p>
3	<p>One 10/100/1000BASE-T port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The port can receive PoE power from a central switch through an Ethernet cable or the first-generation hybrid cable.</p>	4	<p>One GE/2.5GE hybrid optical-electrical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.</p> <p>The port can receive PoE power from a central switch through the second-generation hybrid cable.</p> <p>When using a hybrid cable to receive power, you must use the pigtails or jumpers and hybrid modules matching the second-generation hybrid cable.</p>

5	<p>Power adapter socket</p> <p>NOTE The power adapter is not delivered with the device by default and can be purchased separately (part number: 02221024).</p>	6	Ground screw
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Ports

Table 4-1141 Ports on the S5731-L4P2HT-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE++ port	RJ45	A 10/100/1000BASE-T PoE++ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. It can receive PoE power from a central switch through an Ethernet cable.	<ul style="list-style-type: none"> • Ethernet cable • First-generation hybrid cable

Port	Connector Type	Description	Available Components
GE/2.5GE hybrid optical-electrical port	SFP	A GE/2.5GE hybrid optical-electrical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s. It can receive PoE power from a central switch through a hybrid cable.	<ul style="list-style-type: none"> • GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • GE SFP Hybrid Modules • 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions) • 2.5GE eSFP Hybrid Modules (supported in V200R023C00 or V600R023C00 and later versions) • First-generation hybrid cable • Second-generation hybrid cable

Indicators and Buttons

The S5731-L4P2HT-RUA has similar indicators to those on the S5731-L8P2HT-RUA. For details, see the S5731-L8P2HT-RUA.

Power Supply System

The remote unit supports the following power supply modes:

- Powered by an external power adapter (separately purchased)
- Powered by a central switch using an Ethernet cable of Cat5e or higher category (occupies the uplink electrical port, which is used for both PoE power input and data transmission)
- Powered by a central switch using the second-generation hybrid cable (occupies the uplink hybrid optical-electrical port, which is used for both PoE power input and data transmission)
- Powered by a central switch using the first-generation hybrid cable (occupies the uplink electrical port and uplink hybrid optical-electrical port. The uplink electrical port is used for PoE power input, and the uplink hybrid optical-electrical port is used for data transmission.)

When different power supply modes are used at the same time, the system preferentially uses the power adapter for power supply. The cold backup mode is used between different power supply modes and cannot supply power to the remote unit at the same time. The two uplink ports have no default priority, and the connection time is used as the priority.

The remote unit can provide PoE power for external PDs. The PoE power supply capability varies according to the power supply mode.

Table 4-1142 Power supply configurations

Power Supply Mode	Available PoE Power	Maximum Number of Ports (Fully Loaded)	Remark
Powered by an external power adapter	77 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 4 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1 	-
Powered by a central switch	Forcible power supply disabled (default): max 60 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 3 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1 	<ul style="list-style-type: none"> • If no PD is connected to the remote unit, the central switch only supplies power to the remote unit. The PoE standard of the central switch must be 802.3at at least. • If PDs are connected to the remote unit, the central switch supplies power to the remote unit and the connected PDs. It is recommended that the output PoE standard of the

Power Supply Mode	Available PoE Power	Maximum Number of Ports (Fully Loaded)	Remark
	Forcible power supply enabled: max 83 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 4802.3at (30 W per port): 2802.3bt (60 W per port): 1	central switch be 802.3bt and the output power be 90 W. If the 802.3at standard is used, the available power of the PDs connected to the remote unit may be insufficient.

NOTICE

When the remote unit is powered by the central switch, the total power consumption of the remote unit and its connected PDs cannot exceed 71.3 W. If the power consumption exceeds 71.3 W, the remote unit and its connected PDs will be powered off and restarted.

When the remote unit is powered by the central switch, the maximum available PoE power in the preceding table can be provided only when the following conditions are met:

- When forcible power supply is disabled by default:
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
- When forcible power supply is enabled (using the **poE force-power port** command):
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
 - The central switch and the remote unit must be connected for a short distance (less than 8 m, with the line loss ignored). If the distance between the central switch and the remote unit is longer than 8 m and the PD is supplied with power based on the maximum power supply capability displayed on the central switch, the remote unit and the connected PD may be powered off and restarted.
 - The output voltage of the power module used by the central switch cannot be lower than 55.5 V.

The actual available PoE power provided by the remote unit is calculated based on the cabling distance between the central switch and the remote unit, the cabling distance between the remote unit and the connected PD, the maximum power consumption of the remote unit, the PoE output voltage of the central switch, and PoE class level output by the central switch.

If the power output of the remote unit is manually configured to comply with 802.3at or 802.3af, the PD connected to the remote unit will be power-cycled when the remote unit is reset due to a cause other than power-off.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1143 Technical specifications of the S5731-L4P2HT-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 270.0 mm x 178.0 mm (3.23 in. x 10.63 in. x 7.01 in.)
Chassis height [U]	0.855 U
Weight without packaging [kg(lb)]	0.60 kg (1.32 lb)
Weight with packaging [kg(lb)]	0.81 kg (1.79 lb)
Typical power consumption [W]	6.82 W (device) 8.30 W (device + power adapter)
Typical heat dissipation [BTU/hour]	23.27 (device) 28.32 (device + power adapter)
Maximum power consumption [W]	<ul style="list-style-type: none"> ● Without PoE: 7.00 W (device)/8.48 W (device + power adapter) ● Full PoE load: 88.0 W (PoE: 77 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> ● Without PoE: 23.88 (device)/28.94 (device + power adapter) ● Full PoE load: 300.265
Static power consumption [W]	4.88 W
MTBF [years]	73.98 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30

Item	Specification
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Cold backup of uplink hybrid optical-electrical ports or electrical ports and power adapters, cold backup of uplink hybrid optical-electrical ports and electrical ports, and preferential power supply by power adapters (By default, no power adapter is provided, and the power adapter 02221024 can be used.)
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules: - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	<ul style="list-style-type: none"> • Power adapter • PoE_IN
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz PoE input: 56 V DC

Item	Specification
Input voltage range [V]	Power adapter input: 90–290 V AC; 47–63 Hz PoE input: 54–57 V DC
Maximum input current [A]	1.8 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.23.7 S5731-L8T2ST-RUA

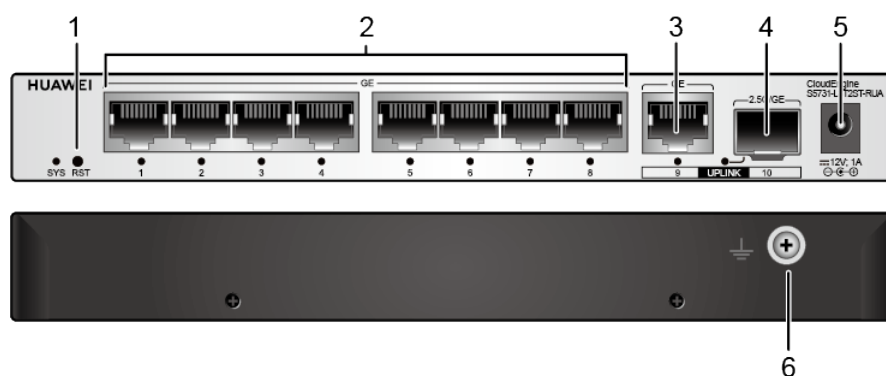
Overview

Table 4-1144 Basic information about the S5731-L8T2ST-RUA

Item	Details
Description	S5731-L8T2ST-RUA (8*10/100/1000BASE-T ports, 1*GE SFP port, 1*10/100/1000BASE-T port, AC power, power adapter)
Part Number	98011778
Model	S5731-L8T2ST-RUA
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-460 S5731-L8T2ST-RUA appearance



1	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.	2	Eight 10/100/1000BASE-T ports
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3	One 10/100/1000BASE-T port NOTE The port is an uplink port.	4	One GE/2.5GE optical port NOTE The port is an uplink port. The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.
5	Power adapter socket NOTE Use the power adapter (12 V, 1 A) delivered with the device.	6	Ground screw

Ports

Table 4-1145 Ports on the S5731-L8T2ST-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none"> GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Indicators and Buttons

The S5731-L8T2ST-RUA has similar indicators to those on the S5731-L8P2HT-RUA except that the S5731-L8T2ST-RUA does not have PoE indicators. For details, see the S5731-L8P2HT-RUA.

Power Supply System

The remote unit is powered by the power adapter delivered with the device.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1146 Technical specifications of the S5731-L8T2ST-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 27.0 mm x 210.0 mm x 130.0 mm (1.06 in. x 8.27 in. x 5.12 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 27.0 mm x 210.0 mm x 130.0 mm (1.06 in. x 8.27 in. x 5.12 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 347.0 mm x 242.0 mm (3.23 in. x 13.66 in. x 9.53 in.)
Chassis height [U]	0.61 U
Weight without packaging [kg(lb)]	0.84 kg (1.85 lb)
Weight with packaging [kg(lb)]	1.14 kg (2.51 lb)
Typical power consumption [W]	7.73 W (device) 7.98 W (device + power adapter)
Typical heat dissipation [BTU/hour]	26.38 (device) 27.23 (device + power adapter)
Maximum power consumption [W]	7.86 W (device) 8.11 W (device + power adapter)
Maximum heat dissipation [BTU/hour]	26.82 (device) 27.67 (device + power adapter)
Static power consumption [W]	3.23 W
MTBF [years]	84.79 years

Item	Specification
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules: - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz Power adapter output: 12 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz

Item	Specification
Maximum input current [A]	1 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.23.8 S5731-L8P2ST-RUA

Overview

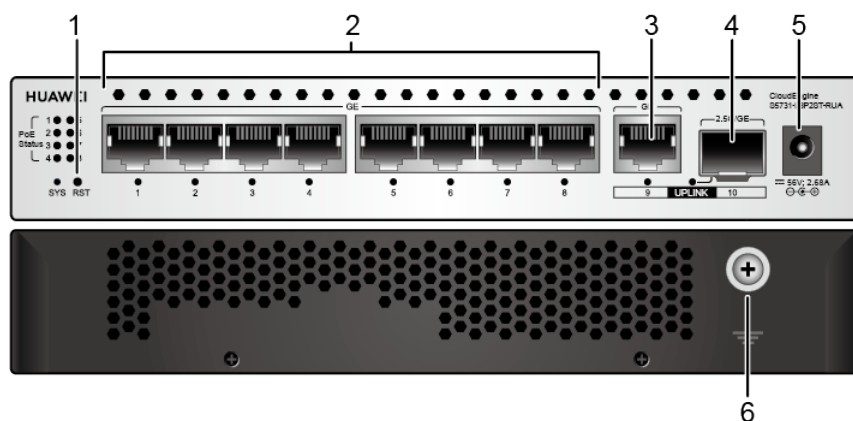
Table 4-1147 Basic information about the S5731-L8P2ST-RUA

Item	Details
Description	S5731-L8P2ST-RUA (8*10/100/1000BASE-T ports, PoE+, 1*GE SFP port, 1*10/100/1000BASE-T port, AC power, power adapter)
Part Number	98011780
Model	S5731-L8P2ST-RUA

Item	Details
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-461 S5731-L8P2ST-RUA appearance



1	<p>One RST button</p> <p>NOTICE</p> <p>To reset the device, press and hold down the button for less than 6s.</p>	2	<p>Eight 10/100/1000BASE-T PoE+ ports</p>
3	<p>One 10/100/1000BASE-T port</p> <p>NOTE</p> <p>The port is an uplink port.</p>	4	<p>One GE/2.5GE optical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.</p>
5	<p>Power adapter socket</p> <p>NOTE</p> <p>Use the power adapter (56 V, 2.68 A) delivered with the device.</p>	6	<p>Ground screw</p>

Ports

Table 4-1148 Ports on the S5731-L8P2ST-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T PoE+ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)• 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Indicators and Buttons

The S5731-L8P2ST-RUA has similar indicators to those on the S5731-L8P2HT-RUA. For details, see the S5731-L8P2HT-RUA.

Power Supply System

The remote unit uses the power adapter delivered with the device to supply power to the remote unit and the connected PDs.

Table 4-1149 Power supply configurations

Power Supply Mode	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External power adapter	131 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 4

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1150 Technical specifications of the S5731-L8P2ST-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	<p>Basic dimensions (excluding the parts protruding from the body): 38.0 mm x 210.0 mm x 130.0 mm (1.5 in. x 8.27 in. x 5.12 in.)</p> <p>Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 38.0 mm x 210.0 mm x 130.0 mm (1.5 in. x 8.27 in. x 5.12 in.)</p>
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 375.0 mm x 242.0 mm (3.23 in. x 14.76 in. x 9.53 in.)
Chassis height [U]	0.855 U
Weight without packaging [kg(lb)]	1.59 kg (3.51 lb)
Weight with packaging [kg(lb)]	1.98 kg (4.37 lb)
Typical power consumption [W]	<p>9.69 W (device)</p> <p>11.36 W (device + power adapter)</p>

Item	Specification
Typical heat dissipation [BTU/hour]	33.06 (device) 38.76 (device + power adapter)
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 10.0 W (device)/11.67 W (device + power adapter) Full PoE load: 146.0 W (PoE: 131 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 34.12 (device)/39.82 (device + power adapter) Full PoE load: 498.17
Static power consumption [W]	6.48 W
MTBF [years]	75.78 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.).</p> <p>The device cannot start when the temperature is lower than 0°C (32°F).</p> <p>The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules:</p> <ul style="list-style-type: none"> - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)

Item	Specification
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz Power adapter output: 56 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz
Maximum input current [A]	2.68 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.23.9 S5731-L8P2HT-RUA

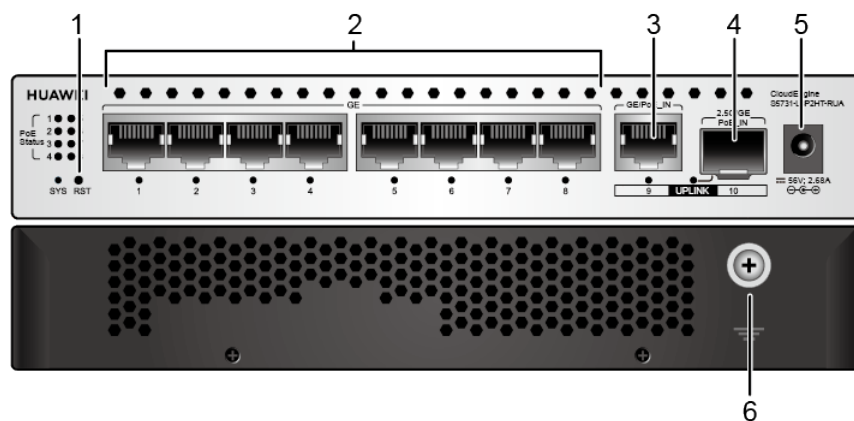
Overview

Table 4-1151 Basic information about the S5731-L8P2HT-RUA

Item	Details
Description	S5731-L8P2HT-RUA (8*10/100/1000BASE-T ports, PoE+, 1*GE hybrid optical-electrical SFP port, 1*10/100/1000BASE-T port, PoE input)
Part Number	98011782
Model	S5731-L8P2HT-RUA
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-462 S5731-L8P2HT-RUA appearance



1	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.	2	Eight 10/100/1000BASE-T PoE+ ports
---	--	---	------------------------------------

3	<p>One 10/100/1000BASE-T port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The port can receive PoE power from a central switch through an Ethernet cable or the first-generation hybrid cable.</p>	4	<p>One GE/2.5GE hybrid optical-electrical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.</p> <p>The port can receive PoE power from a central switch through the second-generation hybrid cable.</p> <p>When using a hybrid cable to receive power, you must use the pigtailed or jumpers and hybrid modules matching the second-generation hybrid cable.</p>
5	<p>Power adapter socket</p> <p>NOTE</p> <p>The power adapter is not delivered with the device by default and can be purchased separately (part number: 02221024).</p>	6	<p>Ground screw</p>

Ports

Table 4-1152 Ports on the S5731-L8P2HT-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	<p>A 10/100/1000BASE-T PoE+ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.</p> <p>The port supports the PoE function.</p>	<p>Ethernet cable</p>

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. It can receive PoE power from a central switch through an Ethernet cable.	<ul style="list-style-type: none"> • Ethernet cable • First-generation hybrid cable

Port	Connector Type	Description	Available Components
GE/2.5GE hybrid optical-electrical port	SFP	A GE/2.5GE hybrid optical-electrical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s. It can receive PoE power from a central switch through a hybrid cable.	<ul style="list-style-type: none"> • GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • GE SFP Hybrid Modules • 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions) • 2.5GE eSFP Hybrid Modules (supported in V200R023C00 or V600R023C00 and later versions) • First-generation hybrid cable • Second-generation hybrid cable

Indicators and Buttons

Figure 4-463 Indicators on the S5731-L8P2HT-RUA

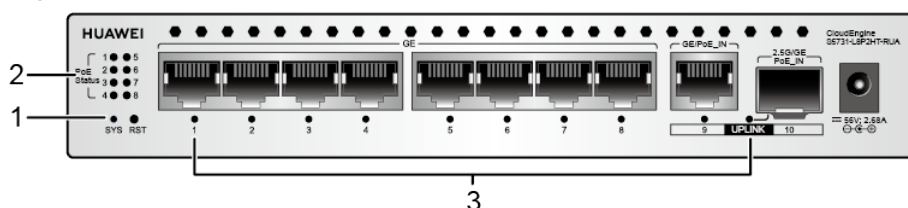


Table 4-1153 Description of indicators on the device

No.	Indicator	Name	Color	Status	Description
1	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
2	PoE STATUS	PoE status indicator	-	Off	The port is connected to a non-PD device or is not supplying PoE power.
			Yellow	Steady on	The port is supplying power to the connected PD.
			Yellow	Blinking	The port is connected to a non-standard PD that can be powered by the port. You can change the power supply mode of the port to force-power so that it can provide power to the PD. The PoE power of the switch is insufficient, and the port cannot provide power to the PD.
3	1-10	Service port indicator	-	Off	The port is not connected.
			Green	Steady on	The port is connected.
			Green	Blinking	The port is sending or receiving data.

Power Supply System

The remote unit supports the following power supply modes:

- Powered by an external power adapter (separately purchased)
- Powered by a central switch using an Ethernet cable of Cat5e or higher category (occupies the uplink electrical port, which is used for both PoE power input and data transmission)
- Powered by a central switch using the second-generation hybrid cable (occupies the uplink hybrid optical-electrical port, which is used for both PoE power input and data transmission)
- Powered by a central switch using the first-generation hybrid cable (occupies the uplink electrical port and uplink hybrid optical-electrical port. The uplink electrical port is used for PoE power input, and the uplink hybrid optical-electrical port is used for data transmission.)

When different power supply modes are used at the same time, the system preferentially uses the power adapter for power supply. The cold backup mode is used between different power supply modes and cannot supply power to the remote unit at the same time. The two uplink ports have no default priority, and the connection time is used as the priority.

The remote unit can provide PoE power for external PDs. The PoE power supply capability varies according to the power supply mode.

Table 4-1154 Power supply configurations

Power Supply Mode	Available PoE Power	Maximum Number of Ports (Fully Loaded)	Remark
Powered by an external power adapter	131 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 4 	-
Powered by a central switch	Forcible power supply disabled (default): max 57 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 3 802.3at (30 W per port): 1 	<ul style="list-style-type: none"> If no PD is connected to the remote unit, the central switch only supplies power to the remote unit. The PoE standard of the central switch must be 802.3at at least. If PDs are connected to the remote unit, the central switch supplies power to the remote unit and the connected PDs. It is recommended that the output PoE standard of the central switch be 802.3bt and the output power be 90 W. If the 802.3at standard is used, the available power of the PDs connected to the remote unit may be insufficient.
	Enable forcible power supply: max 80 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 5 802.3at (30 W per port): 2 	

NOTICE

When the remote unit is powered by the central switch, the total power consumption of the remote unit and its connected PDs cannot exceed 71.3 W. If the power consumption exceeds 71.3 W, the remote unit and its connected PDs will be powered off and restarted.

When the remote unit is powered by the central switch, the maximum available PoE power in the preceding table can be provided only when the following conditions are met:

- When forcible power supply is disabled by default:
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
- When forcible power supply is enabled (using the **poE force-power port** command):
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
 - The central switch and the remote unit must be connected for a short distance (less than 8 m, with the line loss ignored). If the distance between the central switch and the remote unit is longer than 8 m and the PD is supplied with power based on the maximum power supply capability displayed on the central switch, the remote unit and the connected PD may be powered off and restarted.
 - The output voltage of the power module used by the central switch cannot be lower than 55.5 V.

The actual available PoE power provided by the remote unit is calculated based on the cabling distance between the central switch and the remote unit, the cabling distance between the remote unit and the connected PD, the maximum power consumption of the remote unit, the PoE output voltage of the central switch, and PoE class level output by the central switch.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1155 Technical specifications of the S5731-L8P2HT-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 38.0 mm x 210.0 mm x 130.0 mm (1.5 in. x 8.27 in. x 5.12 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 38.0 mm x 210.0 mm x 130.0 mm (1.5 in. x 8.27 in. x 5.12 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 275.0 mm x 196.0 mm (3.23 in. x 10.83 in. x 7.72 in.)
Chassis height [U]	0.855 U
Weight without packaging [kg(lb)]	0.75 kg (1.65 lb)
Weight with packaging [kg(lb)]	0.94 kg (2.07 lb)
Typical power consumption [W]	8.82 W (device) 10.82 W (device + power adapter)
Typical heat dissipation [BTU/hour]	30.09 (device) 36.92 (device + power adapter)
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 9.60 W (device)/11.60 W (device + power adapter) Full PoE load: 146 W (PoE: 131 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 32.76 (device)/39.58 (device + power adapter) Full PoE load: 498.17
Static power consumption [W]	5.6 W
MTBF [years]	71.36 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0

Item	Specification
Number of fans modules	0
Redundant power supply	Cold backup of uplink hybrid optical-electrical ports or electrical ports and power adapters, cold backup of uplink hybrid optical-electrical ports and electrical ports, and preferential power supply by power adapters (By default, no power adapter is provided, and the power adapter 02221024 can be used.)
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules: - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	<ul style="list-style-type: none"> • Power adapter • PoE_IN
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz PoE input: 56 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz PoE input: 54-57 V DC
Maximum input current [A]	2.68 A
Memory	--

Item	Specification
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.23.10 S5731-L8LP2ST-RUA

Overview

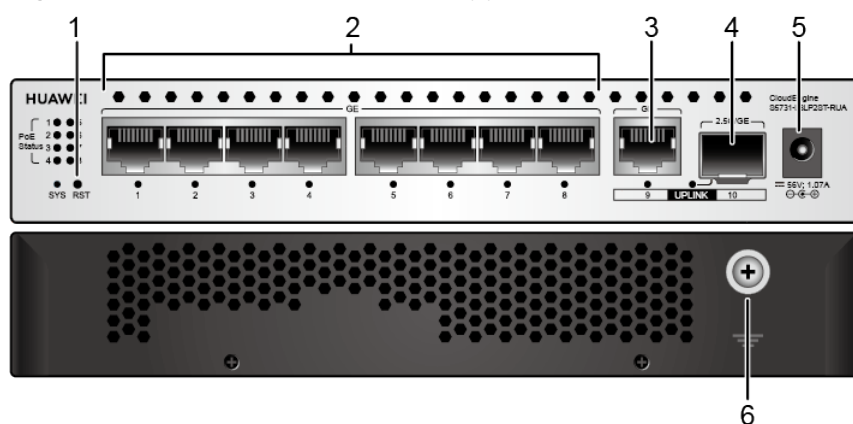
Table 4-1156 Basic information about the S5731-L8LP2ST-RUA

Item	Details
Description	S5731-L8LP2ST-RUA (8*10/100/1000BASE-T ports, PoE+, 1*GE SFP port, 1*10/100/1000BASE-T port, AC power, power adapter)
Part Number	98012186
Model	S5731-L8LP2ST-RUA
First supported version	V200R022C10 V600R022C10

Item	Details
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-464 S5731-L8LP2ST-RUA appearance



1	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.	2	Eight 10/100/1000BASE-T PoE+ ports
3	One 10/100/1000BASE-T port NOTE The port is an uplink port.	4	One GE/2.5GE optical port NOTE The port is an uplink port. The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.
5	Power adapter socket NOTE Use the power adapter (56 V, 1.07 A) delivered with the device.	6	Ground screw

Ports

Table 4-1157 Ports on the S5731-L8LP2ST-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T PoE+ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)• 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Indicators and Buttons

The S5731-L8LP2ST-RUA has similar indicators to those on the S5731-L8P2HT-RUA. For details, see the S5731-L8P2HT-RUA.

Power Supply System

The remote unit uses the power adapter delivered with the device to supply power to the remote unit and the connected PDs.

Table 4-1158 Power supply configurations

Power Supply Mode	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External power adapter	45 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 2802.3at (30 W per port): 1

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1159 Technical specifications of the S5731-L8LP2ST-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 38.0 mm x 210.0 mm x 130.0 mm (1.5 in. x 8.27 in. x 5.12 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 38.0 mm x 210.0 mm x 130.0 mm (1.5 in. x 8.27 in. x 5.12 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	76.0 mm x 357.0 mm x 242.0 mm (2.99 in. x 14.06 in. x 9.53 in.)
Chassis height [U]	0.855 U
Weight without packaging [kg(lb)]	1.06 kg (2.34 lb)
Weight with packaging [kg(lb)]	1.36 kg (3.0 lb)
Typical power consumption [W]	8.6 W (device) 9.44 W (device + power adapter)

Item	Specification
Typical heat dissipation [BTU/hour]	29.34 (device) 32.23 (device + power adapter)
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 9.0 W (device)/9.66 W (device + power adapter) Full PoE load: 59.6 W (PoE: 45 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 30.71 (device)/32.96 (device + power adapter) Full PoE load: 203.36
Static power consumption [W]	4.1 W
MTBF [years]	75.78 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.).</p> <p>The device cannot start when the temperature is lower than 0°C (32°F).</p> <p>The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules:</p> <ul style="list-style-type: none"> - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)

Item	Specification
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz Power adapter output: 56 V DC
Input voltage range [V]	Power adapter input: 90 V AC to 290 V AC; 45 Hz to 65 Hz
Maximum input current [A]	1.07 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.23.11 S5731-L16P2SR-RUA

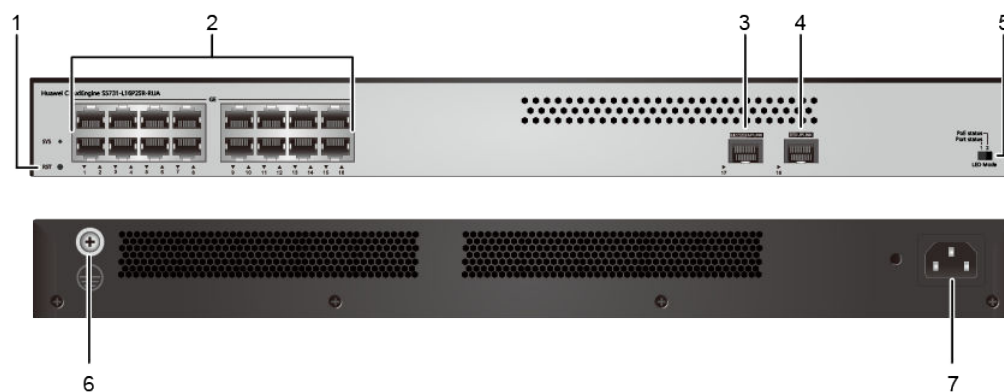
Overview

Table 4-1160 Basic information about the S5731-L16P2SR-RUA

Item	Details
Description	S5731-L16P2SR-RUA(16*10/100/1000BASE-T ports, 2*GE SFP ports, PoE+, AC power)
Part Number	98012157
Model	S5731-L16P2SR-RUA
First supported version	V200R022C10 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-465 S5731-L16P2SR-RUA appearance



1	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.	2	Sixteen 10/100/1000BASE-T PoE+ ports
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3	One GE/2.5GE optical port NOTE The port is an uplink port. The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.	4	One GE optical port NOTE The port is an uplink port.
5	Port indicator status switch NOTE Port status: The port indicator indicates the data connection status of the port. PoE status: The port indicator indicates the PoE status of the port.	6	Ground screw
7	AC socket NOTE Use the power cable delivered with the device.	-	-

Ports

Table 4-1161 Ports on the S5731-L16P2SR-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
GE optical port	SFP	A GE optical port can send and receive data at 1000 Mbit/s.	GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)

Port	Connector Type	Description	Available Components
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Indicators and Buttons

Table 4-1162 Description of indicators on the device

Name	Color	Status	Description
System status indicator	-	Off	The system is not running.
	Green	Fast blinking	The system is starting.
	Green	Slow blinking	The system is running normally.
Port indicator (service status)	-	Off	The port is not connected.
	Green	Steady on	The port is connected.
	Green	Blinking	The port is sending or receiving data.
Port indicator (PoE status)	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Name	Color	Status	Description
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port.

Power Supply System

The remote unit has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 125 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1163 Technical specifications of the S5731-L16P2SR-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 260.0 mm (1.72 in. x 17.40 in. x 10.24 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 267.0 mm (1.72 in. x 17.40 in. x 10.51 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 555.0 mm x 400.0 mm (3.54 in. x 21.85 in. x 15.75 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.01 kg (6.64 lb)
Weight with packaging [kg(lb)]	3.65 kg (8.05 lb)
Typical power consumption [W]	16.42 W
Typical heat dissipation [BTU/hour]	56.03 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 16.7 W Full PoE load: 160.45 W (PoE: 125 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 56.98 Full PoE load: 547.47

Item	Specification
Static power consumption [W]	9.28 W
MTBF [years]	78.68 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100-240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 300 V AC; 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	-
Flash memory	-
Console port	Not supported

Item	Specification
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Differential mode: ± 6 kV; common mode: ± 6 kV
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation without fans
Airflow direction	N/A
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.24 S5731S-L

4.24.1 S5731S-L4P2HW-RUA

Overview

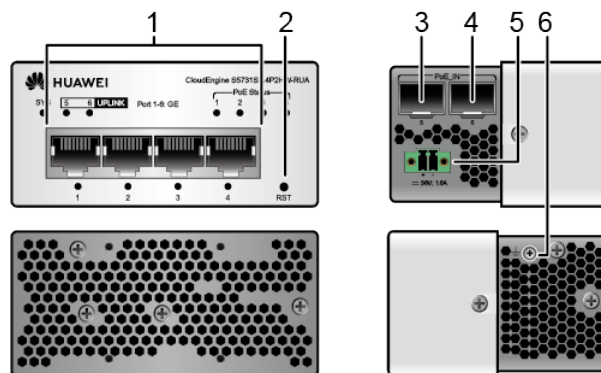
Table 4-1164 Basic information about the S5731S-L4P2HW-RUA

Item	Details
Description	S5731S-L4P2HW-RUA (4*10/100/1000BASE-T ports, PoE++, 2*GE hybrid optical-electrical SFP ports, AC power, power adapter)
Part Number	98011767
Model	S5731S-L4P2HW-RUA
First supported version	V200R021C10SPC500 V600R022C10

Item	Details
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-466 S5731S-L4P2HW-RUA appearance



1	Four 10/100/1000BASE-T PoE++ ports	2	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.
3	One GE hybrid optical-electrical port NOTE The port is an uplink port. The port can receive PoE power from a central switch through the second-generation hybrid cable. When using a hybrid cable to receive power, you must use the pigtails or jumpers and hybrid modules matching the second-generation hybrid cable.	4	One GE/2.5GE hybrid optical-electrical port NOTE The port is an uplink port. The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions. The port can receive PoE power from a central switch through the second-generation hybrid cable. When using a hybrid cable to receive power, you must use the pigtails or jumpers and hybrid modules matching the second-generation hybrid cable.

5	Power adapter socket (phoenix connector) NOTE Use the power adapter (56 V, 1.6 A) delivered with the device.	6	Ground screw
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Ports

Table 4-1165 Ports on the S5731S-L4P2HW-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE++ port	RJ45	A 10/100/1000BASE-T PoE++ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
GE hybrid optical-electrical port	SFP	A GE hybrid optical-electrical port can send and receive data at 1000 Mbit/s. It can receive PoE power from a central switch through a hybrid cable.	<ul style="list-style-type: none">• Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported)• GE SFP Hybrid Modules• Second-generation hybrid cable

Port	Connector Type	Description	Available Components
GE/2.5GE hybrid optical-electrical port	SFP	A GE/2.5GE hybrid optical-electrical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s. It can receive PoE power from a central switch through a hybrid cable.	<ul style="list-style-type: none"> • Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported) • GE SFP Hybrid Modules • 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions) • 2.5GE eSFP Hybrid Modules (supported in V200R023C00 or V600R023C00 and later versions) • Second-generation hybrid cable

Indicators and Buttons

The S5731S-L4P2HW-RUA has similar indicators to those on the S5731S-L8P2HT-RUA. For details, see the S5731S-L8P2HT-RUA.

Power Supply System

The remote unit supports the following power supply modes:

- Powered by an external power adapter

- Powered by a central switch using hybrid cables

When different power supply modes are used at the same time, the system preferentially uses the power adapter for power supply. The cold backup mode is used between different power supply modes and cannot supply power to the remote unit at the same time. The two uplink ports have no default priority, and the connection time is used as the priority.

The remote unit can provide PoE power for external PDs. The PoE power supply capability varies according to the power supply mode.

Table 4-1166 Power supply configurations

Power Supply Mode	Available PoE Power	Maximum Number of Ports (Fully Loaded)	Remark
Powered by an external power adapter	77 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 4 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1 	-
Powered by a central switch	Forcible power supply disabled (default): max 60 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 3 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1 	<ul style="list-style-type: none"> • If no PD is connected to the remote unit, the central switch only supplies power to the remote unit. The PoE standard of the central switch must be 802.3at at least. • If PDs are connected to the remote unit, the central switch supplies power to the remote unit and the connected PDs. It is recommended that the output PoE standard of the central switch be 802.3bt and the output power be 90 W. If the 802.3at standard is used, the available power of the PDs connected to the remote unit may be insufficient.
	Forcible power supply enabled: max 83 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 4 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1 	

NOTICE

When the remote unit is powered by the central switch, the total power consumption of the remote unit and its connected PDs cannot exceed 71.3 W. If the power consumption exceeds 71.3 W, the remote unit and its connected PDs will be powered off and restarted.

When the remote unit is powered by the central switch, the maximum available PoE power in the preceding table can be provided only when the following conditions are met:

- When forcible power supply is disabled by default:
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
- When forcible power supply is enabled (using the **poE force-power port** command):
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
 - The central switch and the remote unit must be connected for a short distance (less than 8 m, with the line loss ignored). If the distance between the central switch and the remote unit is longer than 8 m and the PD is supplied with power based on the maximum power supply capability displayed on the central switch, the remote unit and the connected PD may be powered off and restarted.
 - The output voltage of the power module used by the central switch cannot be lower than 55.5 V.

The actual available PoE power provided by the remote unit is calculated based on the cabling distance between the central switch and the remote unit, the cabling distance between the remote unit and the connected PD, the maximum power consumption of the remote unit, the PoE output voltage of the central switch, and PoE class level output by the central switch.

If the power output of the remote unit is manually configured to comply with 802.3at or 802.3af, the PD connected to the remote unit will be power-cycled when the remote unit is reset due to a cause other than power-off.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1167 Technical specifications of the S5731S-L4P2HW-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 45.0 mm x 90.0 mm x 75.0 mm (1.77 in. x 3.54 in. x 2.95 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 45.0 mm x 90.0 mm x 75.0 mm (1.77 in. x 3.54 in. x 2.95 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	92.0 mm x 340.0 mm x 222.0 mm (3.62 in. x 13.39 in. x 8.74 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	0.98 kg (2.16 lb)
Weight with packaging [kg(lb)]	1.36 kg (3.0 lb)
Typical power consumption [W]	6.67 W (device) 8.26 W (device + power adapter)
Typical heat dissipation [BTU/hour]	22.76 (device) 28.18 (device + power adapter)
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 7.00 W (device)/8.59 W (device + power adapter) Full PoE load: 88.5 W (PoE: 77 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 23.88 (device)/29.31 (device + power adapter) Full PoE load: 301.97
Static power consumption [W]	5.62 W
MTBF [years]	75.17 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0

Item	Specification
Number of fans modules	0
Redundant power supply	Cold backup of hybrid optical-electrical ports and power adapters, cold backup between two hybrid optical-electrical ports, and preferential power supply by power adapters
Long-term operating temperature [°C(°F)]	-5°C to +40°C (41°F to 104°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the device ranges from -5°C to +40°C (23°F to 104°F) when the following optical modules are used: - GE industrial optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	<ul style="list-style-type: none"> Power adapter PoE_IN
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz PoE input: 56 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz PoE input: 54-57 V DC
Maximum input current [A]	1.8 A
Memory	--
Flash memory	--
Console port	Not supported

Item	Specification
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.24.2 S5731S-L4T2S-RUA

Overview

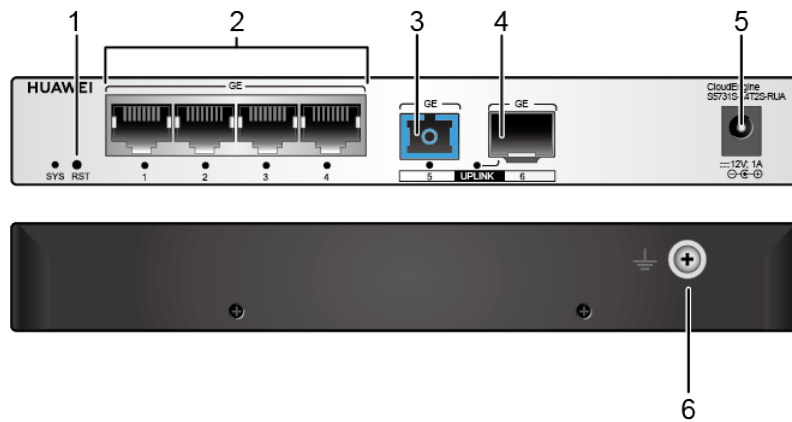
Table 4-1168 Basic information about the S5731S-L4T2S-RUA

Item	Details
Description	S5731S-L4T2S-RUA (4*10/100/1000BASE-T ports, 1*GE SFP port, 1*GE port with an SC connector, TX1310 nm/RX1490 nm, AC power, power adapter)
Part Number	98011769
Model	S5731S-L4T2S-RUA
First supported version	V200R021C10SPC500 V600R022C10

Item	Details
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-467 S5731S-L4T2S-RUA appearance



1	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.	2	Four 10/100/1000BASE-T ports
3	One GE optical port NOTE The port is an uplink port. The port has a built-in single-fiber bidirectional optical module by default and cannot be removed.	4	One GE/2.5GE optical port NOTE The port is an uplink port. The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.
5	Power adapter socket NOTE Use the power adapter (12 V, 1 A) delivered with the device.	6	Ground screw

Ports

Table 4-1169 Ports on the S5731S-L4T2S-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)• 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Port	Connector Type	Description	Available Components
GE optical port	SC	<p>A GE optical port can send and receive data at 1000 Mbit/s.</p> <p>The port has a built-in single-fiber bidirectional optical module by default and cannot be removed.</p> <p>Specifications of the built-in optical module: The rate is GE, the center wavelength is TX1310 nm or RX1490 nm, the connector type is SC, and the maximum transmission distance is 10 km.</p> <p>Only the SFP-GE-LX-SM1490-BIDI (RX1310nm/TX1490nm) optical module can be used on the peer port.</p>	-

Indicators and Buttons

The S5731S-L4T2S-RUA has similar indicators to those on the S5731S-L8P2HT-RUA except that the S5731S-L4T2S-RUA does not have PoE indicators. For details, see the S5731S-L8P2HT-RUA.

Power Supply System

The remote unit is powered by the power adapter delivered with the device.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1170 Technical specifications of the S5731S-L4T2S-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 27.0 mm x 185.0 mm x 115.0 mm (1.06 in. x 7.28 in. x 4.53 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 27.0 mm x 185.0 mm x 115.0 mm (1.06 in. x 7.28 in. x 4.53 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 342.0 mm x 228.0 mm (3.23 in. x 13.46 in. x 8.98 in.)
Chassis height [U]	0.61 U
Weight without packaging [kg(lb)]	0.72 kg (1.59 lb)
Weight with packaging [kg(lb)]	1.02 kg (2.25 lb)
Typical power consumption [W]	4.88 W (device) 5.08 W (device + power adapter)
Typical heat dissipation [BTU/hour]	16.65 (device) 17.33 (device + power adapter)
Maximum power consumption [W]	5.06 W (device) 5.26 W (device + power adapter)
Maximum heat dissipation [BTU/hour]	17.27 (device) 19.75 (device + power adapter)
Static power consumption [W]	2.62 W
MTBF [years]	83.23 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0

Item	Specification
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules: - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz Power adapter output: 12 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz
Maximum input current [A]	1 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±6 kV

Item	Specification
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.24.3 S5731S-L4T2ST-RUA

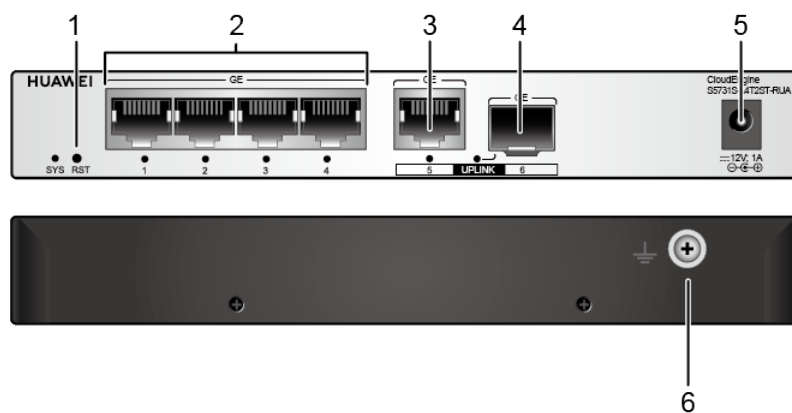
Overview

Table 4-1171 Basic information about the S5731S-L4T2ST-RUA

Item	Details
Description	S5731S-L4T2ST-RUA (4*10/100/1000BASE-T ports, 1*GE SFP port, 1*10/100/1000BASE-T port, AC power, power adapter)
Part Number	98011771
Model	S5731S-L4T2ST-RUA
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-468 S5731S-L4T2ST-RUA appearance



1	<p>One RST button</p> <p>NOTICE</p> <p>To reset the device, press and hold down the button for less than 6s.</p>	2	<p>Four 10/100/1000BASE-T ports</p>
3	<p>One 10/100/1000BASE-T port</p> <p>NOTE</p> <p>The port is an uplink port.</p>	4	<p>One GE/2.5GE optical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.</p>
5	<p>Power adapter socket</p> <p>NOTE</p> <p>Use the power adapter (12 V, 1 A) delivered with the device.</p>	6	<p>Ground screw</p>

Ports

Table 4-1172 Ports on the S5731S-L4T2ST-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)• 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Indicators and Buttons

The S5731S-L4T2ST-RUA has similar indicators to those on the S5731S-L8P2HT-RUA except that the S5731S-L4T2ST-RUA does not have PoE indicators. For details, see the S5731S-L8P2HT-RUA.

Power Supply System

The remote unit is powered by the power adapter delivered with the device.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1173 Technical specifications of the S5731S-L4T2ST-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 27.0 mm x 185.0 mm x 115.0 mm (1.06 in. x 7.28 in. x 4.53 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 27.0 mm x 185.0 mm x 115.0 mm (1.06 in. x 7.28 in. x 4.53 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 342.0 mm x 228.0 mm (3.23 in. x 13.46 in. x 8.98 in.)
Chassis height [U]	0.61 U
Weight without packaging [kg(lb)]	0.74 kg (1.63 lb)
Weight with packaging [kg(lb)]	1.02 kg (2.25 lb)
Typical power consumption [W]	4.88 W (device) 5.08 W (device + power adapter)
Typical heat dissipation [BTU/hour]	16.65 (device) 17.33 (device + power adapter)
Maximum power consumption [W]	5.06 W (device) 5.26 W (device + power adapter)
Maximum heat dissipation [BTU/hour]	17.27 (device) 17.95 (device + power adapter)
Static power consumption [W]	2.62 W
MTBF [years]	83.23 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0

Item	Specification
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules: - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz Power adapter output: 12 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz
Maximum input current [A]	1 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±6 kV

Item	Specification
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.24.4 S5731S-L4P2S-RUA

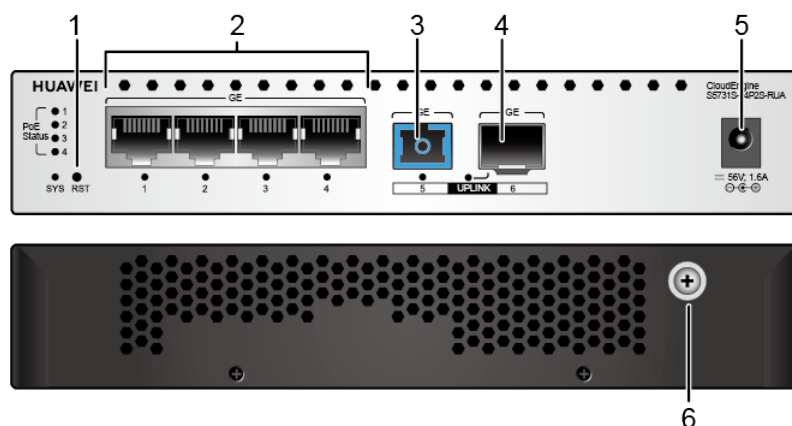
Overview

Table 4-1174 Basic information about the S5731S-L4P2S-RUA

Item	Details
Description	S5731S-L4P2S-RUA (4*10/100/1000BASE-T ports, PoE++, 1*GE SFP port, 1*GE port with an SC connector, TX1310 nm/RX1490 nm, AC power, power adapter)
Part Number	98011773
Model	S5731S-L4P2S-RUA
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-469 S5731S-L4P2S-RUA appearance



1	<p>One RST button</p> <p>NOTICE</p> <p>To reset the device, press and hold down the button for less than 6s.</p>	2	<p>Four 10/100/1000BASE-T PoE++ ports</p>
3	<p>One GE optical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The port has a built-in single-fiber bidirectional optical module by default and cannot be removed.</p>	4	<p>One GE/2.5GE optical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.</p>
5	<p>Power adapter socket</p> <p>NOTE</p> <p>Use the power adapter (56 V, 1.6 A) delivered with the device.</p>	6	<p>Ground screw</p>

Ports

Table 4-1175 Ports on the S5731S-L4P2S-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE++ port	RJ45	A 10/100/1000BASE-T PoE++ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)• 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Port	Connector Type	Description	Available Components
GE optical port	SC	<p>A GE optical port can send and receive data at 1000 Mbit/s.</p> <p>The port has a built-in single-fiber bidirectional optical module by default and cannot be removed.</p> <p>Specifications of the built-in optical module: The rate is GE, the center wavelength is TX1310 nm or RX1490 nm, the connector type is SC, and the maximum transmission distance is 10 km.</p> <p>Only the SFP-GE-LX-SM1490-BIDI (RX1310nm/TX1490nm) optical module can be used on the peer port.</p>	-

Indicators and Buttons

The S5731S-L4P2S-RUA has similar indicators to those on the S5731S-L8P2HT-RUA. For details, see the S5731S-L8P2HT-RUA.

Power Supply System

The remote unit uses the power adapter delivered with the device to supply power to the remote unit and the connected PDs.

Table 4-1176 Power supply configurations

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External power adapter	77 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 4 ● 802.3at (30 W per port): 2 ● 802.3bt (60 W per port): 1

 **NOTE**

If the power output of the remote unit is manually configured to comply with 802.3at or 802.3af, the PD connected to the remote unit will be power-cycled when the remote unit is reset due to a cause other than power-off.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1177 Technical specifications of the S5731S-L4P2S-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	<p>Basic dimensions (excluding the parts protruding from the body): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.)</p> <p>Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.)</p>
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 350.0 mm x 222.0 mm (3.23 in. x 13.78 in. x 8.74 in.)
Chassis height [U]	0.855 U
Weight without packaging [kg(lb)]	1.12 kg (2.47 lb)
Weight with packaging [kg(lb)]	1.46 kg (3.22 lb)
Typical power consumption [W]	6.82 W (device) 8.30 W (device + power adapter)
Typical heat dissipation [BTU/hour]	23.27 (device) 28.32 (device + power adapter)

Item	Specification
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 7.00 W (device)/8.48 W (device + power adapter) Full PoE load: 88.0 W (PoE: 77 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 23.88 (device)/28.94 (device + power adapter) Full PoE load: 300.27
Static power consumption [W]	4.88 W
MTBF [years]	74.48 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.).</p> <p>The device cannot start when the temperature is lower than 0°C (32°F).</p> <p>The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules:</p> <ul style="list-style-type: none"> - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)

Item	Specification
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100–240 V AC; 50/60 Hz Power adapter output: 56 V DC
Input voltage range [V]	Power adapter input: 90–290 V AC; 47–63 Hz
Maximum input current [A]	1.6 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.24.5 S5731S-L4P2ST-RUA

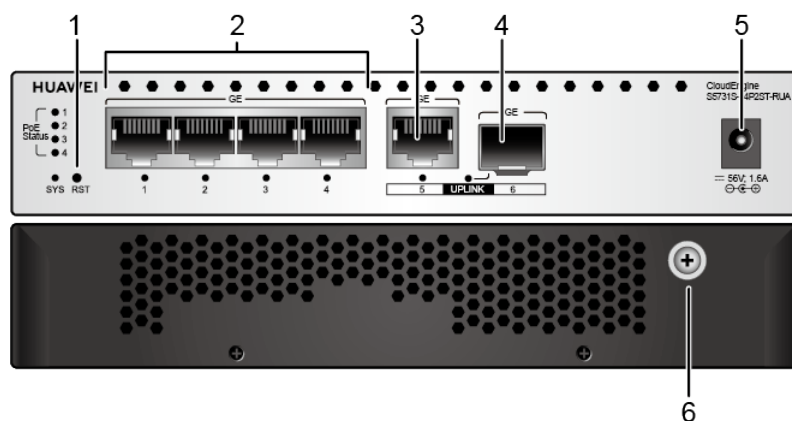
Overview

Table 4-1178 Basic information about the S5731S-L4P2ST-RUA

Item	Details
Description	S5731S-L4P2ST-RUA (4*10/100/1000BASE-T ports, PoE++, 1*GE SFP port, 1*10/100/1000BASE-T port, AC power, power adapter)
Part Number	98011775
Model	S5731S-L4P2ST-RUA
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-470 S5731S-L4P2ST-RUA appearance



1	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.	2	Four 10/100/1000BASE-T PoE++ ports
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3	One 10/100/1000BASE-T port NOTE The port is an uplink port.	4	One GE/2.5GE optical port NOTE The port is an uplink port. The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.
5	Power adapter socket NOTE Use the power adapter (56 V, 1.6 A) delivered with the device.	6	Ground screw

Ports

Table 4-1179 Ports on the S5731S-L4P2ST-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE++ port	RJ45	A 10/100/1000BASE-T PoE++ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Indicators and Buttons

The S5731S-L4P2ST-RUA has similar indicators to those on the S5731S-L8P2HT-RUA. For details, see the S5731S-L8P2HT-RUA.

Power Supply System

The remote unit uses the power adapter delivered with the device to supply power to the remote unit and the connected PDs.

Table 4-1180 Power supply configurations

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External power adapter	77 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 4 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1

NOTE

If the power output of the remote unit is manually configured to comply with 802.3at or 802.3af, the PD connected to the remote unit will be power-cycled when the remote unit is reset due to a cause other than power-off.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1181 Technical specifications of the S5731S-L4P2ST-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 350.0 mm x 222.0 mm (3.23 in. x 13.78 in. x 8.74 in.)
Chassis height [U]	0.855 U
Weight without packaging [kg(lb)]	1.14 kg (2.51 lb)
Weight with packaging [kg(lb)]	1.46 kg (3.22 lb)
Typical power consumption [W]	6.80 W (device) 7.68 W (device + power adapter)
Typical heat dissipation [BTU/hour]	23.20 (device) 26.21 (device + power adapter)
Maximum power consumption [W]	<ul style="list-style-type: none"> ● Without PoE: 7.00 W (device)/7.88 W (device + power adapter) ● Full PoE load: 88.0 W (PoE: 77 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> ● Without PoE: 23.88 (device)/26.89 (device + power adapter) ● Full PoE load: 300.27
Static power consumption [W]	4.68 W
MTBF [years]	78.74 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30

Item	Specification
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules: - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz Power adapter output: 56 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz
Maximum input current [A]	1.6 A
Memory	--
Flash memory	--
Console port	Not supported

Item	Specification
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.24.6 S5731S-L4P2HT-RUA

Overview

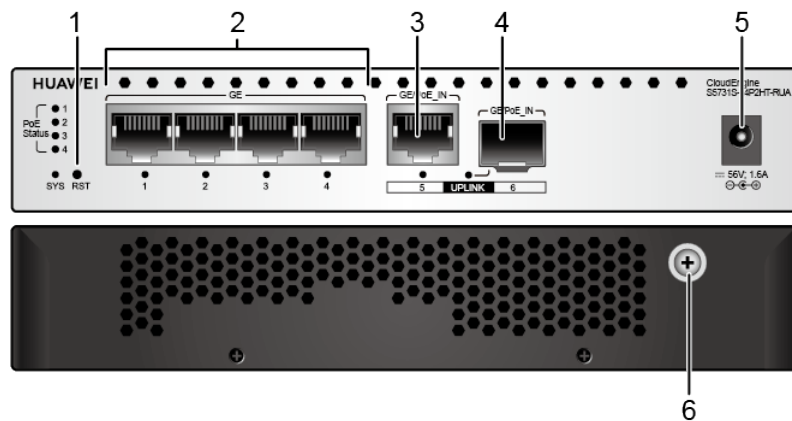
Table 4-1182 Basic information about the S5731S-L4P2HT-RUA

Item	Details
Description	S5731S-L4P2HT-RUA (4*10/100/1000BASE-T ports, PoE++, 1*GE hybrid optical-electrical SFP port, 1*10/100/1000BASE-T port, PoE input)
Part Number	98011777
Model	S5731S-L4P2HT-RUA
First supported version	V200R021C10SPC500 V600R022C10

Item	Details
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-471 S5731S-L4P2HT-RUA appearance



1	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.	2	Four 10/100/1000BASE-T PoE++ ports
3	One 10/100/1000BASE-T port NOTE The port is an uplink port. The port can receive PoE power from a central switch through an Ethernet cable or the first-generation hybrid cable.	4	One GE/2.5GE hybrid optical-electrical port NOTE The port is an uplink port. The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions. The port can receive PoE power from a central switch through the second-generation hybrid cable. When using a hybrid cable to receive power, you must use the pigtails or jumpers and hybrid modules matching the second-generation hybrid cable.

5	Power adapter socket NOTE The power adapter is not delivered with the device by default and can be purchased separately (part number: 02221024).	6	Ground screw
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Ports

Table 4-1183 Ports on the S5731S-L4P2HT-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE++ port	RJ45	A 10/100/1000BASE-T PoE++ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. It can receive PoE power from a central switch through an Ethernet cable.	<ul style="list-style-type: none"> • Ethernet cable • First-generation hybrid cable

Port	Connector Type	Description	Available Components
GE/2.5GE hybrid optical-electrical port	SFP	A GE/2.5GE hybrid optical-electrical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s. It can receive PoE power from a central switch through a hybrid cable.	<ul style="list-style-type: none">• GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)• GE SFP Hybrid Modules• 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)• 2.5GE eSFP Hybrid Modules (supported in V200R023C00 or V600R023C00 and later versions)• First-generation hybrid cable• Second-generation hybrid cable

Indicators and Buttons

The S5731S-L4P2HT-RUA has similar indicators to those on the S5731S-L8P2HT-RUA. For details, see the S5731S-L8P2HT-RUA.

Power Supply System

The remote unit supports the following power supply modes:

- Powered by an external power adapter (separately purchased)
- Powered by a central switch using an Ethernet cable of Cat5e or higher category (occupies the uplink electrical port, which is used for both PoE power input and data transmission)
- Powered by a central switch using the second-generation hybrid cable (occupies the uplink hybrid optical-electrical port, which is used for both PoE power input and data transmission)
- Powered by a central switch using the first-generation hybrid cable (occupies the uplink electrical port and uplink hybrid optical-electrical port. The uplink electrical port is used for PoE power input, and the uplink hybrid optical-electrical port is used for data transmission.)

When different power supply modes are used at the same time, the system preferentially uses the power adapter for power supply. The cold backup mode is used between different power supply modes and cannot supply power to the remote unit at the same time. The two uplink ports have no default priority, and the connection time is used as the priority.

The remote unit can provide PoE power for external PDs. The PoE power supply capability varies according to the power supply mode.

Table 4-1184 Power supply configurations

Power Supply Mode	Available PoE Power	Maximum Number of Ports (Fully Loaded)	Remark
Powered by an external power adapter	77 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 4 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1 	-
Powered by a central switch	Forcible power supply disabled (default): max 60 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 3 • 802.3at (30 W per port): 2 • 802.3bt (60 W per port): 1 	<ul style="list-style-type: none"> • If no PD is connected to the remote unit, the central switch only supplies power to the remote unit. The PoE standard of the central switch must be 802.3at at least. • If PDs are connected to the remote unit, the central switch supplies power to the remote unit and the connected PDs. It is recommended that the output PoE standard of the

Power Supply Mode	Available PoE Power	Maximum Number of Ports (Fully Loaded)	Remark
	Forcible power supply enabled: max 83 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 4802.3at (30 W per port): 2802.3bt (60 W per port): 1	central switch be 802.3bt and the output power be 90 W. If the 802.3at standard is used, the available power of the PDs connected to the remote unit may be insufficient.

NOTICE

When the remote unit is powered by the central switch, the total power consumption of the remote unit and its connected PDs cannot exceed 71.3 W. If the power consumption exceeds 71.3 W, the remote unit and its connected PDs will be powered off and restarted.

When the remote unit is powered by the central switch, the maximum available PoE power in the preceding table can be provided only when the following conditions are met:

- When forcible power supply is disabled by default:
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
- When forcible power supply is enabled (using the **poE force-power port** command):
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
 - The central switch and the remote unit must be connected for a short distance (less than 8 m, with the line loss ignored). If the distance between the central switch and the remote unit is longer than 8 m and the PD is supplied with power based on the maximum power supply capability displayed on the central switch, the remote unit and the connected PD may be powered off and restarted.
 - The output voltage of the power module used by the central switch cannot be lower than 55.5 V.

The actual available PoE power provided by the remote unit is calculated based on the cabling distance between the central switch and the remote unit, the cabling distance between the remote unit and the connected PD, the maximum power consumption of the remote unit, the PoE output voltage of the central switch, and PoE class level output by the central switch.

If the power output of the remote unit is manually configured to comply with 802.3at or 802.3af, the PD connected to the remote unit will be power-cycled when the remote unit is reset due to a cause other than power-off.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1185 Technical specifications of the S5731S-L4P2HT-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 38.0 mm x 185.0 mm x 115.0 mm (1.5 in. x 7.28 in. x 4.53 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 270.0 mm x 178.0 mm (3.23 in. x 10.63 in. x 7.01 in.)
Chassis height [U]	0.855 U
Weight without packaging [kg(lb)]	0.60 kg (1.32 lb)
Weight with packaging [kg(lb)]	0.81 kg (1.79 lb)
Typical power consumption [W]	6.82 W (device) 8.30 W (device + power adapter)
Typical heat dissipation [BTU/hour]	23.27 (device) 28.32 (device + power adapter)
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 7.00 W (device)/8.48 W (device + power adapter) Full PoE load: 88.0 W (PoE: 77 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 23.88 (device)/28.94 (device + power adapter) Full PoE load: 300.265
Static power consumption [W]	4.88 W
MTBF [years]	73.98 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30

Item	Specification
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Cold backup of uplink hybrid optical-electrical ports or electrical ports and power adapters, cold backup of uplink hybrid optical-electrical ports and electrical ports, and preferential power supply by power adapters (By default, no power adapter is provided, and the power adapter 02221024 can be used.)
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.).</p> <p>The device cannot start when the temperature is lower than 0°C (32°F).</p> <p>The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules:</p> <ul style="list-style-type: none"> - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	<ul style="list-style-type: none"> • Power adapter • PoE_IN
Rated input voltage [V]	<p>Power adapter input: 100-240 V AC; 50/60 Hz</p> <p>PoE input: 56 V DC</p>

Item	Specification
Input voltage range [V]	Power adapter input: 90–290 V AC; 47–63 Hz PoE input: 54–57 V DC
Maximum input current [A]	1.8 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.24.7 S5731S-L8T2ST-RUA

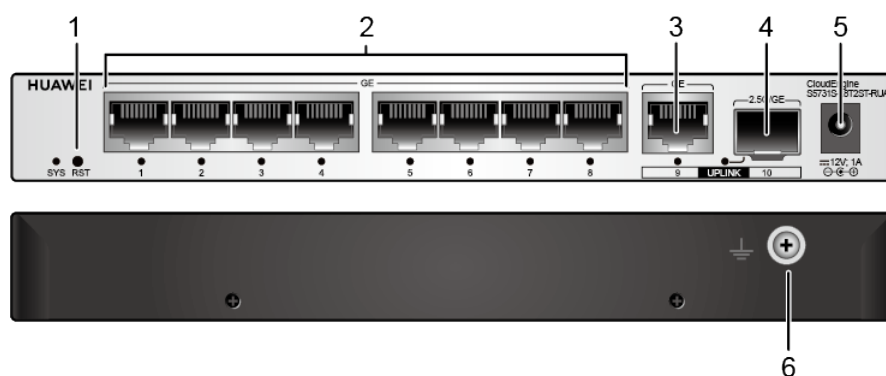
Overview

Table 4-1186 Basic information about the S5731S-L8T2ST-RUA

Item	Details
Description	S5731S-L8T2ST-RUA (8*10/100/1000BASE-T ports, 1*GE SFP port, 1*10/100/1000BASE-T port, AC power, power adapter)
Part Number	98011779
Model	S5731S-L8T2ST-RUA
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-472 S5731S-L8T2ST-RUA appearance



1	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.	2	Eight 10/100/1000BASE-T ports
---	--	---	-------------------------------

3	One 10/100/1000BASE-T port NOTE The port is an uplink port.	4	One GE/2.5GE optical port NOTE The port is an uplink port. The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.
5	Power adapter socket NOTE Use the power adapter (12 V, 1 A) delivered with the device.	6	Ground screw

Ports

Table 4-1187 Ports on the S5731S-L8T2ST-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none"> GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Indicators and Buttons

The S5731S-L8T2ST-RUA has similar indicators to those on the S5731S-L8P2HT-RUA except that the S5731S-L8T2ST-RUA does not have PoE indicators. For details, see the S5731S-L8P2HT-RUA.

Power Supply System

The remote unit is powered by the power adapter delivered with the device.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1188 Technical specifications of the S5731S-L8T2ST-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 27.0 mm x 210.0 mm x 130.0 mm (1.06 in. x 8.27 in. x 5.12 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 27.0 mm x 210.0 mm x 130.0 mm (1.06 in. x 8.27 in. x 5.12 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 347.0 mm x 242.0 mm (3.23 in. x 13.66 in. x 9.53 in.)
Chassis height [U]	0.61 U
Weight without packaging [kg(lb)]	0.84 kg (1.85 lb)
Weight with packaging [kg(lb)]	1.14 kg (2.51 lb)
Typical power consumption [W]	7.73 W (device) 7.98 W (device + power adapter)
Typical heat dissipation [BTU/hour]	26.38 (device) 27.23 (device + power adapter)
Maximum power consumption [W]	7.86 W (device) 8.11 W (device + power adapter)
Maximum heat dissipation [BTU/hour]	26.82 (device) 27.67 (device + power adapter)
Static power consumption [W]	3.23 W
MTBF [years]	84.79 years

Item	Specification
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.).</p> <p>The device cannot start when the temperature is lower than 0°C (32°F).</p> <p>The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules:</p> <ul style="list-style-type: none"> - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz Power adapter output: 12 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz

Item	Specification
Maximum input current [A]	1 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.24.8 S5731S-L8P2ST-RUA

Overview

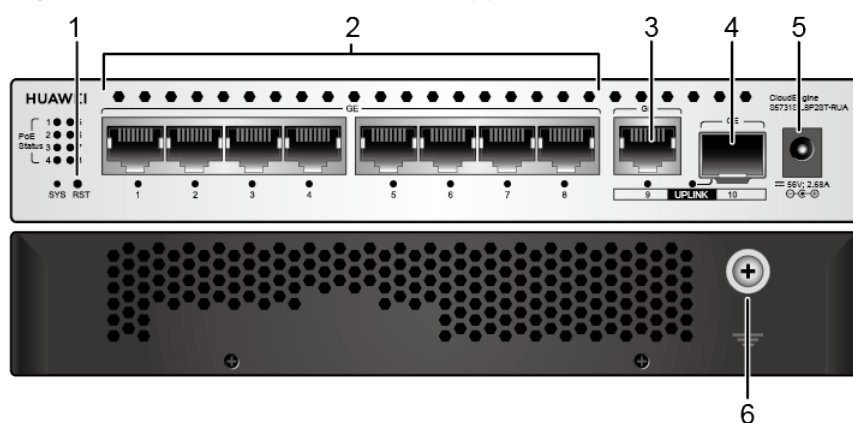
Table 4-1189 Basic information about the S5731S-L8P2ST-RUA

Item	Details
Description	S5731S-L8P2ST-RUA (8*10/100/1000BASE-T ports, PoE+, 1*GE SFP port, 1*10/100/1000BASE-T port, AC power, power adapter)
Part Number	98011781
Model	S5731S-L8P2ST-RUA

Item	Details
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-473 S5731S-L8P2ST-RUA appearance



1	One RST button NOTICE To reset the device, press and hold down the button for less than 6s.	2	Eight 10/100/1000BASE-T PoE+ ports
3	One 10/100/1000BASE-T port NOTE The port is an uplink port.	4	One GE/2.5GE optical port NOTE The port is an uplink port. The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.
5	Power adapter socket NOTE Use the power adapter (56 V, 2.68 A) delivered with the device.	6	Ground screw

Ports

Table 4-1190 Ports on the S5731S-L8P2ST-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T PoE+ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)• 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Indicators and Buttons

The S5731S-L8P2ST-RUA has similar indicators to those on the S5731S-L8P2HT-RUA. For details, see the S5731S-L8P2HT-RUA.

Power Supply System

The remote unit uses the power adapter delivered with the device to supply power to the remote unit and the connected PDs.

Table 4-1191 Power supply configurations

Power Supply Mode	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External power adapter	131 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 4

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1192 Technical specifications of the S5731S-L8P2ST-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	<p>Basic dimensions (excluding the parts protruding from the body): 38.0 mm x 210.0 mm x 130.0 mm (1.5 in. x 8.27 in. x 5.12 in.)</p> <p>Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 38.0 mm x 210.0 mm x 130.0 mm (1.5 in. x 8.27 in. x 5.12 in.)</p>
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 375.0 mm x 242.0 mm (3.23 in. x 14.76 in. x 9.53 in.)
Chassis height [U]	0.855 U
Weight without packaging [kg(lb)]	1.59 kg (3.51 lb)
Weight with packaging [kg(lb)]	1.98 kg (4.37 lb)
Typical power consumption [W]	<p>9.69 W (device)</p> <p>11.36 W (device + power adapter)</p>

Item	Specification
Typical heat dissipation [BTU/hour]	33.06 (device) 38.76 (device + power adapter)
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 10.0 W (device)/11.67 W (device + power adapter) Full PoE load: 146.0 W (PoE: 131 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 34.12 (device)/39.82 (device + power adapter) Full PoE load: 498.17
Static power consumption [W]	6.48 W
MTBF [years]	75.78 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.).</p> <p>The device cannot start when the temperature is lower than 0°C (32°F).</p> <p>The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules:</p> <ul style="list-style-type: none"> - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)

Item	Specification
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz Power adapter output: 56 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz
Maximum input current [A]	2.68 A
Memory	--
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.24.9 S5731S-L8P2HT-RUA

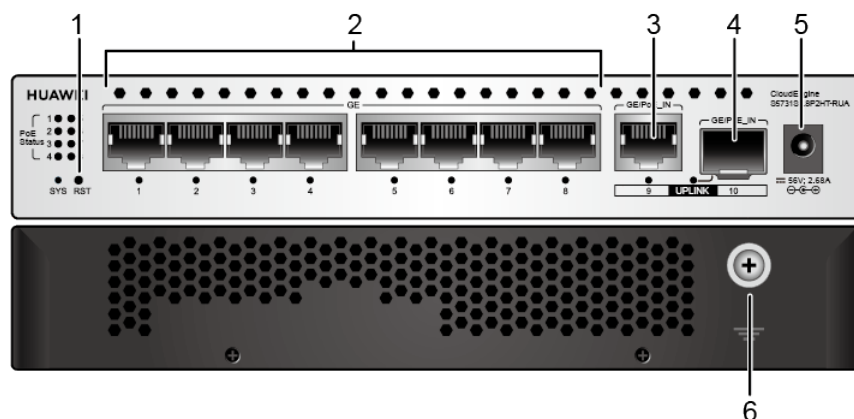
Overview

Table 4-1193 Basic information about the S5731S-L8P2HT-RUA

Item	Details
Description	S5731S-L8P2HT-RUA (8*10/100/1000BASE-T ports, PoE+, 1*GE hybrid optical-electrical SFP port, 1*10/100/1000BASE-T port, PoE input)
Part Number	98011783
Model	S5731S-L8P2HT-RUA
First supported version	V200R021C10SPC500 V600R022C10
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-474 S5731S-L8P2HT-RUA appearance



1	<p>One RST button</p> <p>NOTICE</p> <p>To reset the device, press and hold down the button for less than 6s.</p>	2	<p>Eight 10/100/1000BASE-T PoE+ ports</p>
---	---	---	---

3	<p>One 10/100/1000BASE-T port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The port can receive PoE power from a central switch through an Ethernet cable or the first-generation hybrid cable.</p>	4	<p>One GE/2.5GE hybrid optical-electrical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.</p> <p>The port can receive PoE power from a central switch through the second-generation hybrid cable.</p> <p>When using a hybrid cable to receive power, you must use the pigtailed or jumpers and hybrid modules matching the second-generation hybrid cable.</p>
5	<p>Power adapter socket</p> <p>NOTE</p> <p>The power adapter is not delivered with the device by default and can be purchased separately (part number: 02221024).</p>	6	<p>Ground screw</p>

Ports

Table 4-1194 Ports on the S5731S-L8P2HT-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	<p>A 10/100/1000BASE-T PoE+ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.</p> <p>The port supports the PoE function.</p>	<p>Ethernet cable</p>

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. It can receive PoE power from a central switch through an Ethernet cable.	<ul style="list-style-type: none"> • Ethernet cable • First-generation hybrid cable

Port	Connector Type	Description	Available Components
GE/2.5GE hybrid optical-electrical port	SFP	A GE/2.5GE hybrid optical-electrical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s. It can receive PoE power from a central switch through a hybrid cable.	<ul style="list-style-type: none"> • GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • GE SFP Hybrid Modules • 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions) • 2.5GE eSFP Hybrid Modules (supported in V200R023C00 or V600R023C00 and later versions) • First-generation hybrid cable • Second-generation hybrid cable

Indicators and Buttons

Figure 4-475 Indicators on the S5731S-L8P2HT-RUA

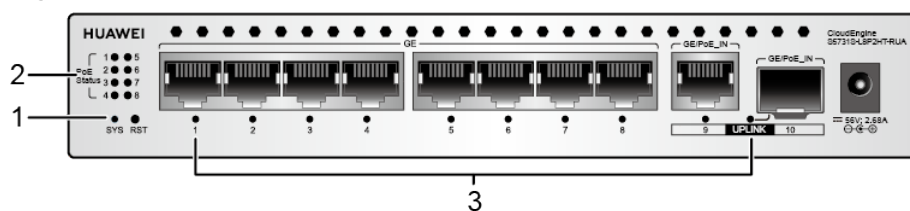


Table 4-1195 Description of indicators on the device

No.	Indicator	Name	Color	Status	Description
1	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
2	PoE STATUS	PoE status indicator	-	Off	The port is connected to a non-PD device or is not supplying PoE power.
			Yellow	Steady on	The port is supplying power to the connected PD.
			Yellow	Blinking	The port is connected to a non-standard PD that can be powered by the port. You can change the power supply mode of the port to force-power so that it can provide power to the PD. The PoE power of the switch is insufficient, and the port cannot provide power to the PD.
3	1-10	Service port indicator	-	Off	The port is not connected.
			Green	Steady on	The port is connected.
			Green	Blinking	The port is sending or receiving data.

Power Supply System

The remote unit supports the following power supply modes:

- Powered by an external power adapter (separately purchased)
- Powered by a central switch using an Ethernet cable of Cat5e or higher category (occupies the uplink electrical port, which is used for both PoE power input and data transmission)
- Powered by a central switch using the second-generation hybrid cable (occupies the uplink hybrid optical-electrical port, which is used for both PoE power input and data transmission)
- Powered by a central switch using the first-generation hybrid cable (occupies the uplink electrical port and uplink hybrid optical-electrical port. The uplink electrical port is used for PoE power input, and the uplink hybrid optical-electrical port is used for data transmission.)

When different power supply modes are used at the same time, the system preferentially uses the power adapter for power supply. The cold backup mode is used between different power supply modes and cannot supply power to the remote unit at the same time. The two uplink ports have no default priority, and the connection time is used as the priority.

The remote unit can provide PoE power for external PDs. The PoE power supply capability varies according to the power supply mode.

Table 4-1196 Power supply configurations

Power Supply Mode	Available PoE Power	Maximum Number of Ports (Fully Loaded)	Remark
Powered by an external power adapter	131 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 4 	-
Powered by a central switch	Forcible power supply disabled (default): max 57 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 3 802.3at (30 W per port): 1 	<ul style="list-style-type: none"> If no PD is connected to the remote unit, the central switch only supplies power to the remote unit. The PoE standard of the central switch must be 802.3at at least. If PDs are connected to the remote unit, the central switch supplies power to the remote unit and the connected PDs. It is recommended that the output PoE standard of the central switch be 802.3bt and the output power be 90 W. If the 802.3at standard is used, the available power of the PDs connected to the remote unit may be insufficient.
	Enable forcible power supply: max 80 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 5 802.3at (30 W per port): 2 	

NOTICE

When the remote unit is powered by the central switch, the total power consumption of the remote unit and its connected PDs cannot exceed 71.3 W. If the power consumption exceeds 71.3 W, the remote unit and its connected PDs will be powered off and restarted.

When the remote unit is powered by the central switch, the maximum available PoE power in the preceding table can be provided only when the following conditions are met:

- When forcible power supply is disabled by default:
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
- When forcible power supply is enabled (using the **poE force-power port** command):
 - The PoE output of the central switch must comply with the 802.3bt class8 standard.
 - The central switch and the remote unit must be connected for a short distance (less than 8 m, with the line loss ignored). If the distance between the central switch and the remote unit is longer than 8 m and the PD is supplied with power based on the maximum power supply capability displayed on the central switch, the remote unit and the connected PD may be powered off and restarted.
 - The output voltage of the power module used by the central switch cannot be lower than 55.5 V.

The actual available PoE power provided by the remote unit is calculated based on the cabling distance between the central switch and the remote unit, the cabling distance between the remote unit and the connected PD, the maximum power consumption of the remote unit, the PoE output voltage of the central switch, and PoE class level output by the central switch.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1197 Technical specifications of the S5731S-L8P2HT-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 38.0 mm x 210.0 mm x 130.0 mm (1.5 in. x 8.27 in. x 5.12 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 38.0 mm x 210.0 mm x 130.0 mm (1.5 in. x 8.27 in. x 5.12 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	82.0 mm x 275.0 mm x 196.0 mm (3.23 in. x 10.83 in. x 7.72 in.)
Chassis height [U]	0.855 U
Weight without packaging [kg(lb)]	0.75 kg (1.65 lb)
Weight with packaging [kg(lb)]	0.94 kg (2.07 lb)
Typical power consumption [W]	8.82 W (device) 10.82 W (device + power adapter)
Typical heat dissipation [BTU/hour]	30.09 (device) 36.92 (device + power adapter)
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 9.60 W (device)/11.60 W (device + power adapter) Full PoE load: 146 W (PoE: 131 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 32.76 (device)/39.58 (device + power adapter) Full PoE load: 498.17
Static power consumption [W]	5.6 W
MTBF [years]	71.36 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans): < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans): < 20
Number of card slots	0
Number of power slots	0

Item	Specification
Number of fans modules	0
Redundant power supply	Cold backup of uplink hybrid optical-electrical ports or electrical ports and power adapters, cold backup of uplink hybrid optical-electrical ports and electrical ports, and preferential power supply by power adapters (By default, no power adapter is provided, and the power adapter 02221024 can be used.)
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5905.44-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (721.78 ft.). The device cannot start when the temperature is lower than 0°C (32°F). The operating temperature of a device ranges from -5°C to +45°C (23°F to 113°F) when the device uses the following optical modules: - GE optical modules with a transmission distance of less than or equal to 10 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	<ul style="list-style-type: none"> • Power adapter • PoE_IN
Rated input voltage [V]	Power adapter input: 100-240 V AC; 50/60 Hz PoE input: 56 V DC
Input voltage range [V]	Power adapter input: 90-290 V AC; 47-63 Hz PoE input: 54-57 V DC
Maximum input current [A]	2.68 A
Memory	--

Item	Specification
Flash memory	--
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Power adapter: ± 6 kV in differential mode and ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.24.10 S5731S-L16P2SR-RUA

Overview

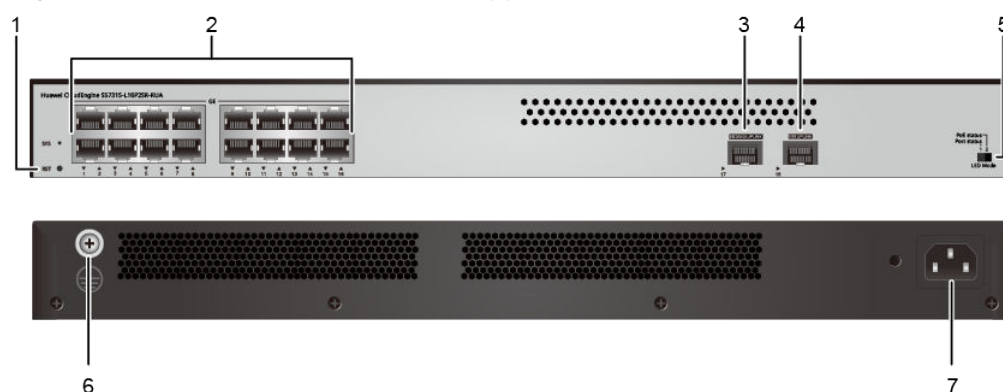
Table 4-1198 Basic information about the S5731S-L16P2SR-RUA

Item	Details
Description	S5731S-L16P2SR-RUA(16*10/100/1000BASE-T ports, 2*GE SFP ports, PoE+, AC power)
Part Number	98012159
Model	S5731S-L16P2SR-RUA
First supported version	V200R022C10 V600R022C10

Item	Details
Remarks	The RU itself does not have a software version. Instead, the first supported version of the RU depends on the software version of the central switch and varies for central switches running V200 and V600.

Components

Figure 4-476 S5731S-L16P2SR-RUA appearance



1	<p>One RST button</p> <p>NOTICE</p> <p>To reset the device, press and hold down the button for less than 6s.</p>	2	<p>Sixteen 10/100/1000BASE-T PoE+ ports</p>
3	<p>One GE/2.5GE optical port</p> <p>NOTE</p> <p>The port is an uplink port.</p> <p>The 2.5GE rate is supported in V200R023C00 or V600R023C00 and later versions.</p>	4	<p>One GE optical port</p> <p>NOTE</p> <p>The port is an uplink port.</p>
5	<p>Port indicator status switch</p> <p>NOTE</p> <p>Port status: The port indicator indicates the data connection status of the port.</p> <p>PoE status: The port indicator indicates the PoE status of the port.</p>	6	<p>Ground screw</p>

7	AC socket NOTE Use the power cable delivered with the device.	-	-
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Ports

Table 4-1199 Ports on the S5731S-L16P2SR-RUA

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
GE optical port	SFP	A GE optical port can send and receive data at 1000 Mbit/s.	GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)

Port	Connector Type	Description	Available Components
GE/2.5GE optical port	SFP	A GE/2.5GE optical port can send and receive data at 1000 Mbit/s or 2.5 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • 2.5GE eSFP Optical Modules (supported in V200R023C00 or V600R023C00 and later versions)

Indicators and Buttons

Table 4-1200 Description of indicators on the device

Name	Color	Status	Description
System status indicator	-	Off	The system is not running.
	Green	Fast blinking	The system is starting.
	Green	Slow blinking	The system is running normally.
Port indicator (service status)	-	Off	The port is not connected.
	Green	Steady on	The port is connected.
	Green	Blinking	The port is sending or receiving data.
Port indicator (PoE status)	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Name	Color	Status	Description
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port.

Power Supply System

The remote unit has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 125 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The remote unit has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1201 Technical specifications of the S5731S-L16P2SR-RUA

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 260.0 mm (1.72 in. x 17.40 in. x 10.24 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 267.0 mm (1.72 in. x 17.40 in. x 10.51 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 555.0 mm x 400.0 mm (3.54 in. x 21.85 in. x 15.75 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.19 kg (7.03 lb)
Weight with packaging [kg(lb)]	3.83 kg (8.44 lb)
Typical power consumption [W]	16.42 W
Typical heat dissipation [BTU/hour]	56.03 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 16.7 W Full PoE load: 160.45 W (PoE: 125 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 56.98 Full PoE load: 547.47

Item	Specification
Static power consumption [W]	9.28 W
MTBF [years]	78.68 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100-240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 300 V AC; 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	-
Flash memory	-
Console port	Not supported

Item	Specification
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	Differential mode: ± 6 kV; common mode: ± 6 kV
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation without fans
Airflow direction	N/A
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.25 S5731-S

4.25.1 S5731-S24T4X (02353AHU/02353AHU-001)

Version Mapping

Table 4-1202 lists the mapping between the S5731-S24T4X chassis and software versions.

Table 4-1202 Version mapping

Series	Model	Software Version
S5731-S	S5731-S24T4X	02353AHU: V200R019C00 and later versions 02353AHU-001: V200R020C10 and later versions

Appearance and Structure

Figure 4-477 S5731-S24T4X (02353AHU) appearance

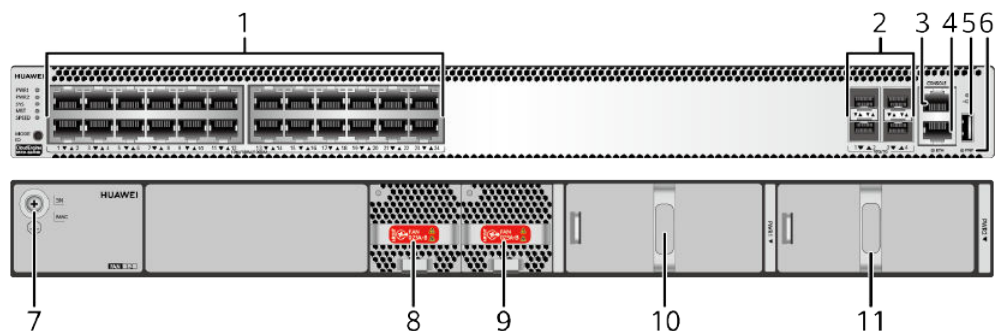
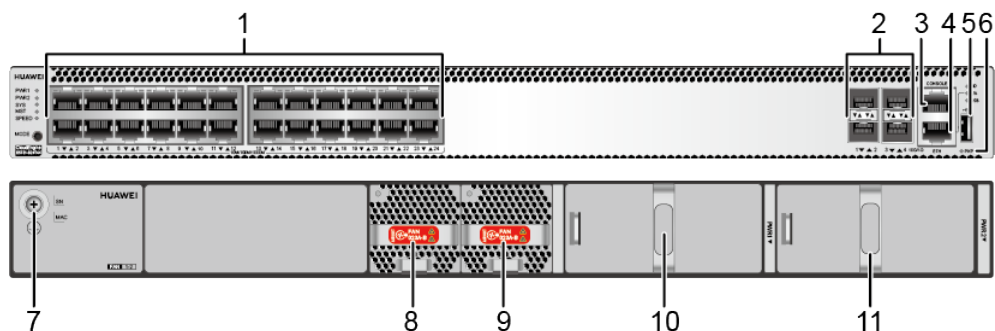


Figure 4-478 S5731-S24T4X (02353AHU-001) appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port

5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
9	<p>Fan module slot 2</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	10	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)

1 1	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1203](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1203 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1204](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1204 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1205](#).

Table 4-1205 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1206](#) describes the attributes of an ETH management port.

Table 4-1206 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

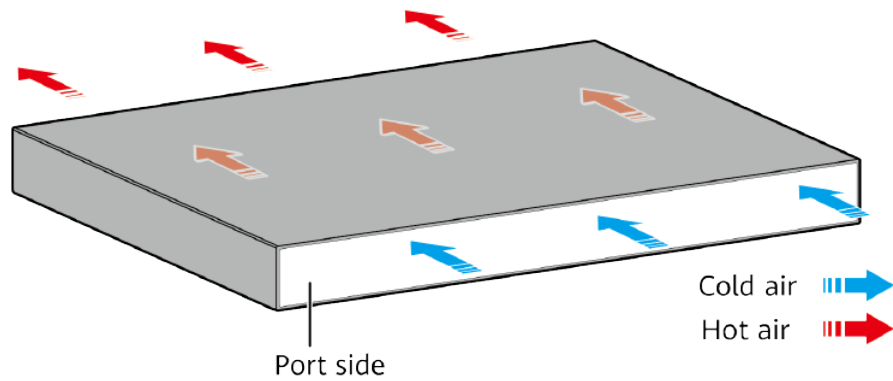
The S5731-S24T4X has similar indicators to those on the S5731-S48P4X except that the S5731-S24T4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731-S24T4X uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1207 lists technical specifications of the S5731-S24T4X.

Table 4-1207 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)

Item	Description
Weight (with packaging)	8.4 kg (18.52 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	114 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	88 W
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353AHU 02353AHU-001

4.25.2 S5731-S24T4X (98011851)

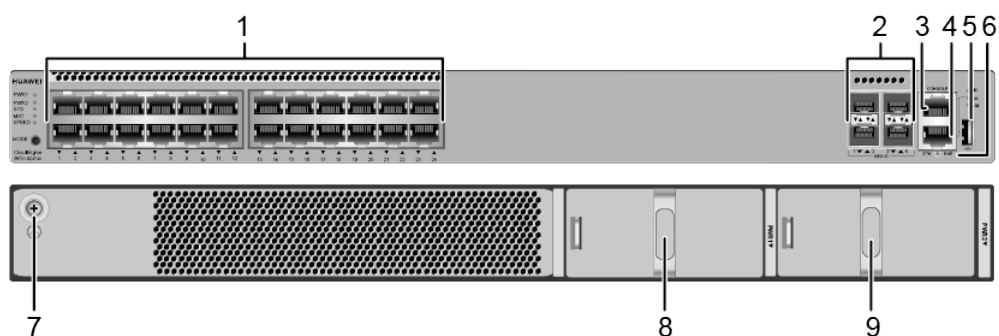
Overview

Table 4-1208 Basic information about the S5731-S24T4X

Item	Details
Description	S5731-S24T4X (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, without power module)
Part Number	98011851
Model	S5731-S24T4X
First supported version	V200R021C10SPC600
Supported Patch Version	If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.

Components

Figure 4-479 S5731-S24T4X appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	-	-

Ports

Table 4-1209 Ports on the S5731-S24T4X

Port	Connector Type	Description	Available Components
10/100/1000BASE -T port	RJ45	A 10/100/1000BASE -T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

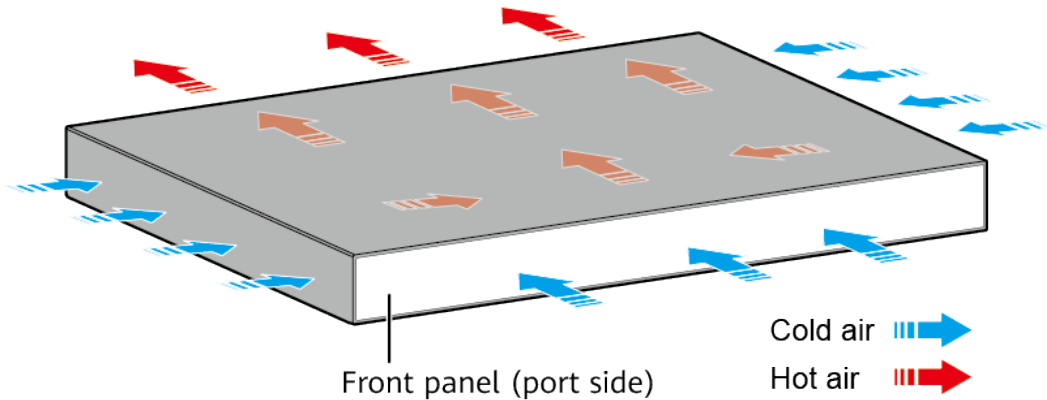
The S5731-S24T4X has similar indicators to those on the S5731-S48P4X except that the S5731-S24T4X does not have a PoE mode indicator. For details, see the S5731-S48P4X.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1210 Technical specifications of the S5731-S24T4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	4.84 kg (10.67 lb)
Weight with packaging [kg(lb)]	7.37 kg (16.25 lb)
Typical power consumption [W]	61 W
Typical heat dissipation [BTU/hour]	208.14 BTU/hour
Maximum power consumption [W]	87 W
Maximum heat dissipation [BTU/hour]	296.85 BTU/hour
Static power consumption [W]	44 W
MTBF [years]	86.81 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.62 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.94 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode ● Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air flows in from the left, right, and front, and flows out from the rear.
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.3 S5731-S24T4X-A (98011858)

Overview

Table 4-1211 Basic information about the S5731-S24T4X-A

Item	Details
Description	S5735-L24T4X-A (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011858
Model	S5731-S24T4X-A
First supported version	V200R021C10SPC500

Components

Figure 4-480 S5731-S24T4X-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1212 Ports on the S5731-S24T4X-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

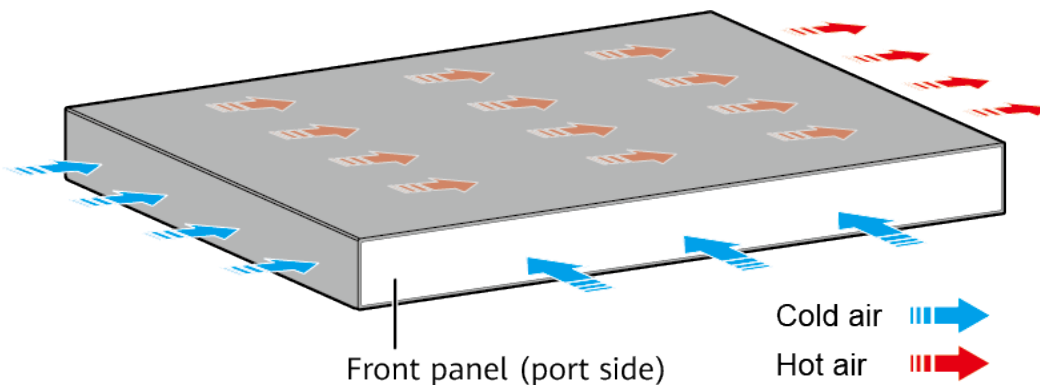
The S5731-S24T4X-A has the same types of indicators as the S5731-S48T4X-A. For details, see the S5731-S48T4X-A.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1213 Technical specifications of the S5731-S24T4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 355.0 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.04 kg (6.7 lb)
Weight with packaging [kg(lb)]	4.40 kg (9.7 lb)
Typical power consumption [W]	63 W
Typical heat dissipation [BTU/hour]	214.96 BTU/hour
Maximum power consumption [W]	80 W
Maximum heat dissipation [BTU/hour]	272.97 BTU/hour
Static power consumption [W]	48 W
MTBF [years]	47.34 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	44.90 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.21 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.

Item	Specification
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.4 S5731-S24T4X-A (98011858-001)

Overview

Table 4-1214 Basic information about the S5731-S24T4X-A

Item	Details
Description	S5735-L24T4X-A (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011858-001
Model	S5731-S24T4X-A
First supported version	V200R021C10SPC600

Item	Details
Supported Patch Version	If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.

Components

Figure 4-481 S5731-S24T4X-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1215 Ports on the S5731-S24T4X-A

Port	Connector Type	Description	Available Components
10/100/1000BASE -T port	RJ45	A 10/100/1000BASE -T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

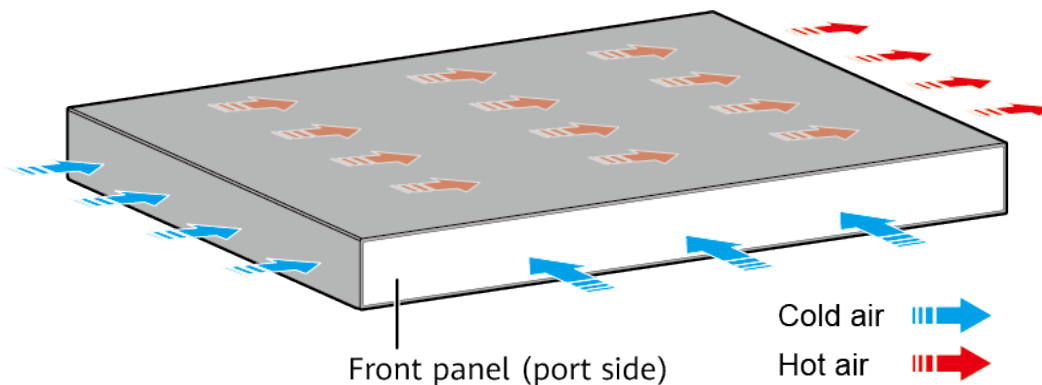
The S5731-S24T4X-A has the same types of indicators as the S5731-S48T4X-A. For details, see the S5731-S48T4X-A.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1216 Technical specifications of the S5731-S24T4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 355.0 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.04 kg (6.7 lb)
Weight with packaging [kg(lb)]	4.40 kg (9.7 lb)
Typical power consumption [W]	63 W
Typical heat dissipation [BTU/hour]	214.96 BTU/hour
Maximum power consumption [W]	80 W
Maximum heat dissipation [BTU/hour]	272.97 BTU/hour
Static power consumption [W]	48 W
MTBF [years]	47.34 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	44.90 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.21 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100-240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45

Item	Specification
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	Differential mode: ± 6 kV; common mode: ± 6 kV
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.5 S5731-S24T4X-D (98011860)

Overview

Table 4-1217 Basic information about the S5731-S24T4X-D

Item	Details
Description	S5731-S24T4X-D (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, DC power)
Part Number	98011860
Model	S5731-S24T4X-D
First supported version	V200R021C10SPC500

Components

Figure 4-482 S5731-S24T4X-D appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	DC power terminal NOTE It is used with DC Power Cable .

Ports

Table 4-1218 Ports on the S5731-S24T4X-D

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

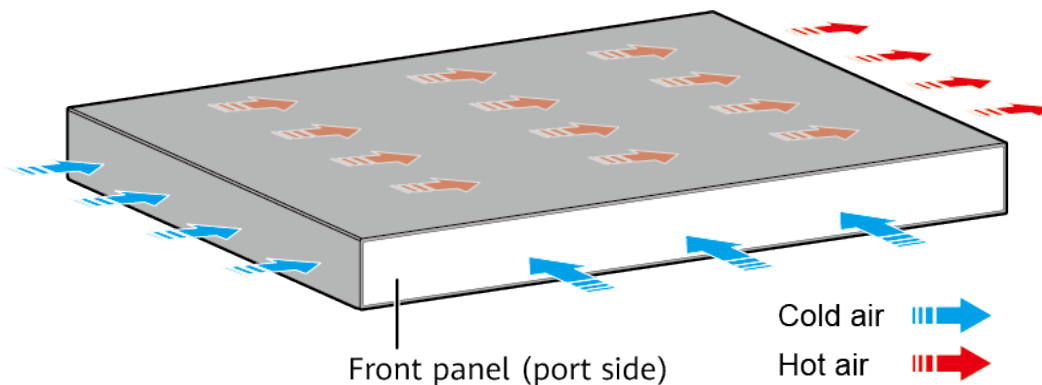
The S5731-S24T4X-D has the same types of indicators as the S5731-S48T4X-A. For details, see the S5731-S48T4X-A.

Power Supply System

The switch has a built-in DC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1219 Technical specifications of the S5731-S24T4X-D

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.40 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 236.0 mm (1.72 in. x 17.40 in. x 9.29 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 355.0 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.26 kg (7.19 lb)
Weight with packaging [kg(lb)]	4.62 kg (10.19 lb)
Typical power consumption [W]	57 W
Typical heat dissipation [BTU/hour]	194.49 BTU/hour
Maximum power consumption [W]	76 W
Maximum heat dissipation [BTU/hour]	259.32 BTU/hour
Static power consumption [W]	42 W
MTBF [years]	47.34 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	44.90 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.21 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	DC built-in
Rated input voltage [V]	-48 V DC to -60 V DC
Input voltage range [V]	-38.4 V DC to -72 V DC
Maximum input current [A]	6 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45

Item	Specification
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.6 S5731-S24T4X-D (98011860-001)

Overview

Table 4-1220 Basic information about the S5731-S24T4X-D

Item	Details
Description	S5731-S24T4X-D (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, DC power)
Part Number	98011860-001
Model	S5731-S24T4X-D
First supported version	V200R021C10SPC600
Supported Patch Version	If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.

Components

Figure 4-483 S5731-S24T4X-D appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	DC power terminal NOTE It is used with DC Power Cable .

Ports

Table 4-1221 Ports on the S5731-S24T4X-D

Port	Connector Type	Description	Available Components
10/100/1000BASE -T port	RJ45	A 10/100/1000BASE -T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

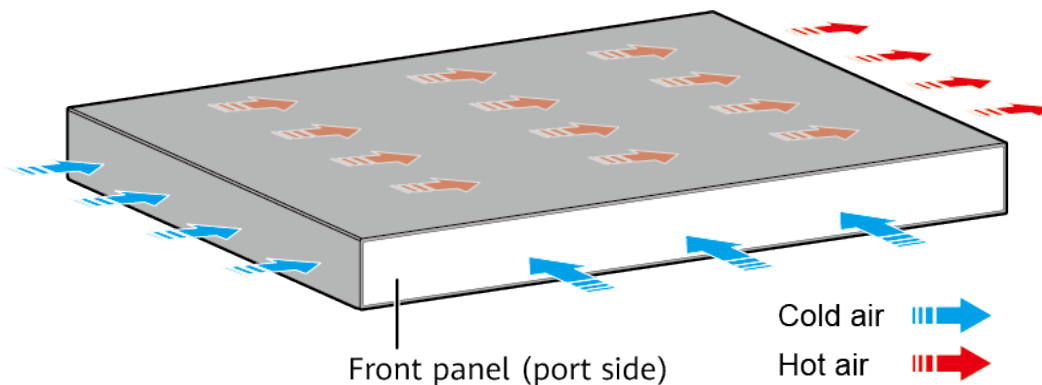
The S5731-S24T4X-D has the same types of indicators as the S5731-S48T4X-A. For details, see the S5731-S48T4X-A.

Power Supply System

The switch has a built-in DC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1222 Technical specifications of the S5731-S24T4X-D

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.40 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 236.0 mm (1.72 in. x 17.40 in. x 9.29 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 355.0 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.26 kg (7.19 lb)
Weight with packaging [kg(lb)]	4.62 kg (10.19 lb)
Typical power consumption [W]	57 W
Typical heat dissipation [BTU/hour]	194.49 BTU/hour
Maximum power consumption [W]	76 W
Maximum heat dissipation [BTU/hour]	259.32 BTU/hour
Static power consumption [W]	42 W
MTBF [years]	47.34 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	44.90 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.21 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	DC built-in
Rated input voltage [V]	-48 V DC to -60 V DC
Input voltage range [V]	-38.4 V DC to -72 V DC
Maximum input current [A]	6 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45

Item	Specification
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.7 S5731-S24P4X (02353AHX/02353AHX-001/02353AHX-003)

Version Mapping

[Table 4-1223](#) lists the mapping between the S5731-S24P4X chassis and software versions.

Table 4-1223 Version mapping

Series	Model	Software Version
S5731-S	S5731-S24P4X	02353AHX: V200R019C00 and later versions 02353AHX-001: V200R020C10 and later versions 02353AHX-003: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.)

Appearance and Structure

Figure 4-484 S5731-S24P4X (02353AHX) appearance

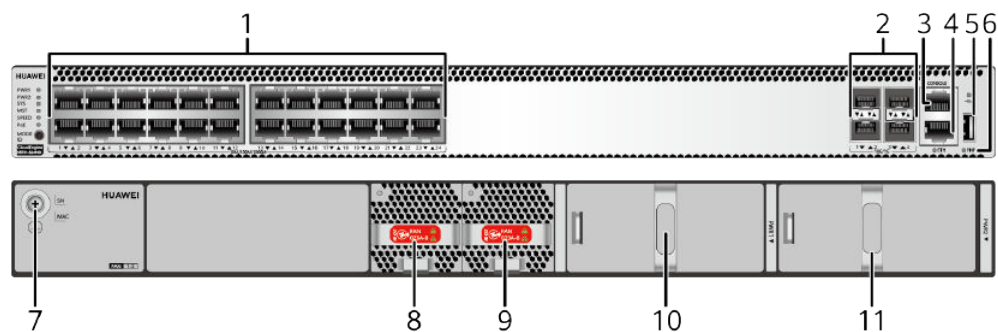
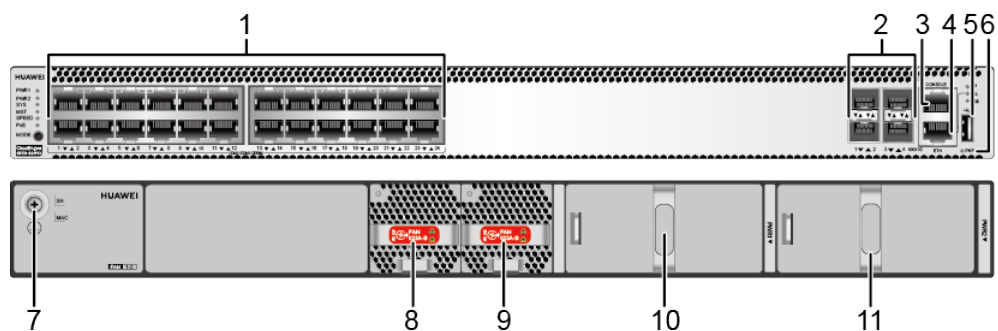


Figure 4-485 S5731-S24P4X (02353AHX-001/02353AHX-003) appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

9	<p>Fan module slot 2</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	1 0	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions)
1 1	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1224](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1224 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1225](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1225 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1226](#).

Table 4-1226 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1227](#) describes the attributes of an ETH management port.

Table 4-1227 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5731-S24P4X has the same types of indicators as the S5731-S48P4X. For details, see [Indicator Description](#).

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1228 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	760 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W AC (110 V)	–	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 22
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	Versions earlier than V200R021C10: 1330 W V200R021C10 and later versions: 1520 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
600 W AC (220 V)	–	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
600 W AC (110 V)	–	95 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 6 802.3at (30 W per port): 3

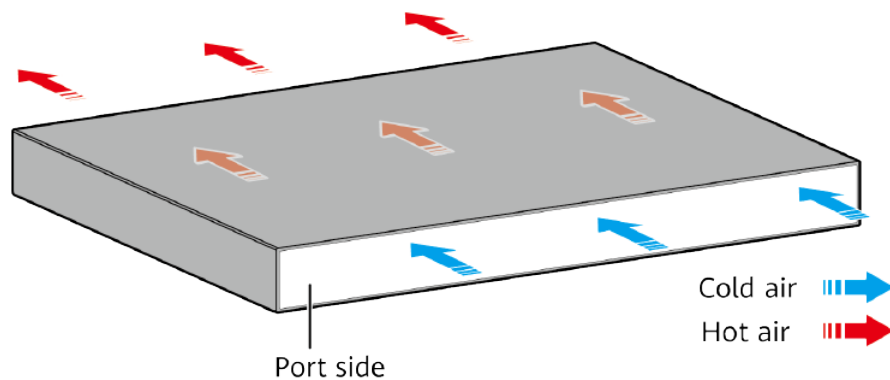
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	600 W AC (220 V)	950 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
600 W AC (110 V)	600 W AC (110 V)	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731-S24P4X uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



Technical Specifications

[Table 4-1229](#) lists technical specifications of the S5731-S24P4X.

Table 4-1229 Technical specifications

Item	Description
Memory (RAM)	2 GB

Item	Description
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.21 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.6 kg (18.96 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 121 W 100% PoE loads: 977 W (PoE: 720 W)

Item	Description
Typical power consumption (30% of traffic load, tested according to ATIS standard)	95 W
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	02353AHX 02353AHX-001 02353AHX-003

4.25.8 S5731-S48T4X (02353AJB/02353AJB-003)

Version Mapping

[Table 4-1230](#) lists the mapping between the S5731-S48T4X chassis and software versions.

Table 4-1230 Version mapping

Series	Model	Software Version
S5731-S	S5731-S48T4X	02353AJB: V200R019C00 and later versions 02353AJB-003: V200R020C10 and later versions

Appearance and Structure

Figure 4-486 S5731-S48T4X (02353AJB) appearance

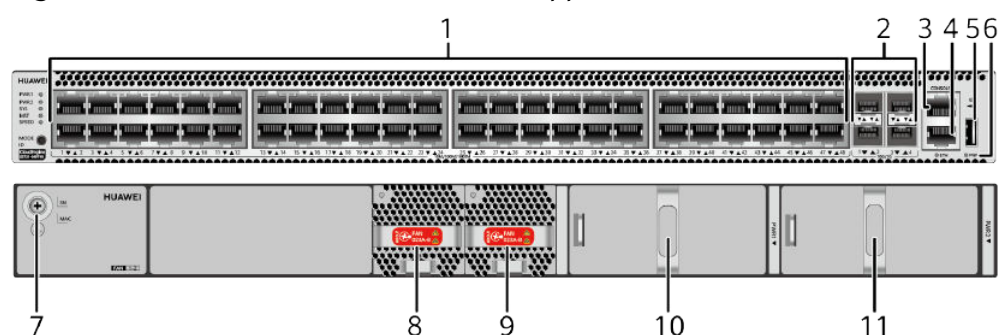
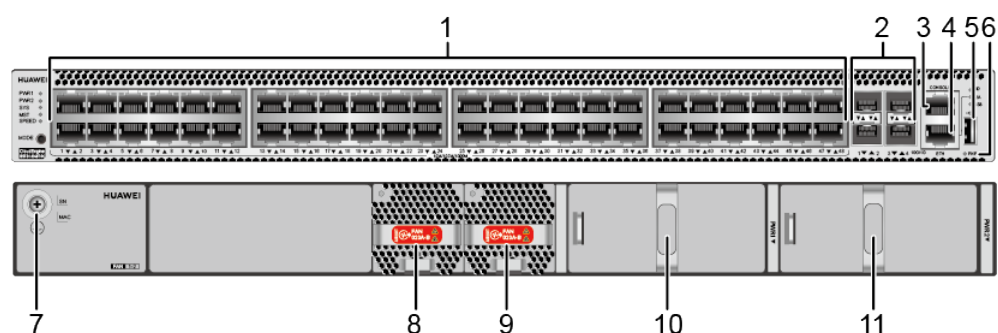


Figure 4-487 S5731-S48T4X (02353AJB-003) appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

9	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	1 0	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
1 1	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1231](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1231 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1232](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1232 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1233](#).

Table 4-1233 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1234](#) describes the attributes of an ETH management port.

Table 4-1234 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

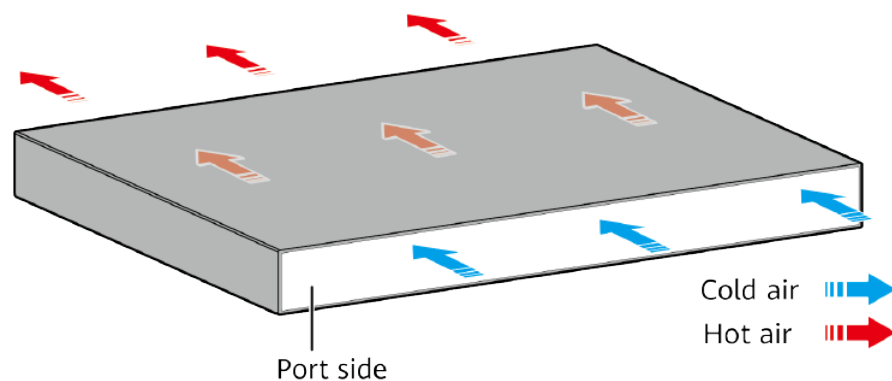
The S5731-S48T4X has similar indicators to those on the S5731-S48P4X except that the S5731-S48T4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731-S48T4X uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1235](#) lists technical specifications of the S5731-S48T4X.

Table 4-1235 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> ● Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode ● Using DC power modules: ±2 kV in differential mode, ±4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.55 kg (18.85 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	101 W

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353AJB 02353AJB-003

4.25.9 S5731-S48T4X (98011847)

Overview

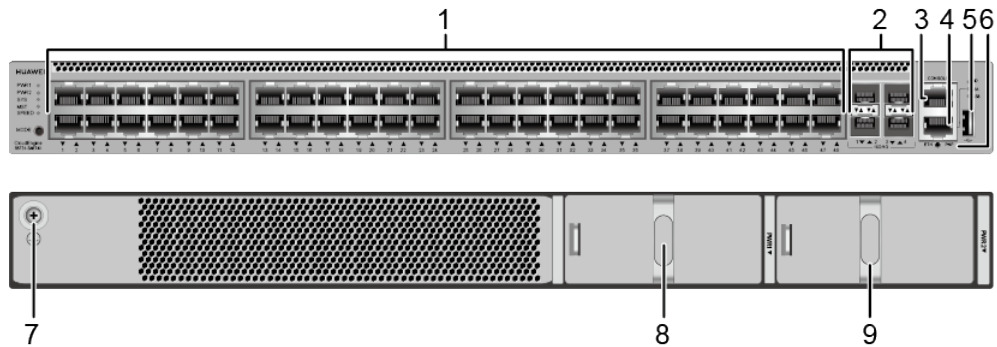
Table 4-1236 Basic information about the S5731-S48T4X

Item	Details
Description	S5731-S48T4X (48*10/100/1000BASE-T ports,4*10GE SFP+ ports,without power module)
Part Number	98011847
Model	S5731-S48T4X
First supported version	V200R021C10SPC600

Item	Details
Supported Patch Version	If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.

Components

Figure 4-488 S5731-S48T4X appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)
9	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	-	-

Ports

Table 4-1237 Ports on the S5731-S48T4X

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

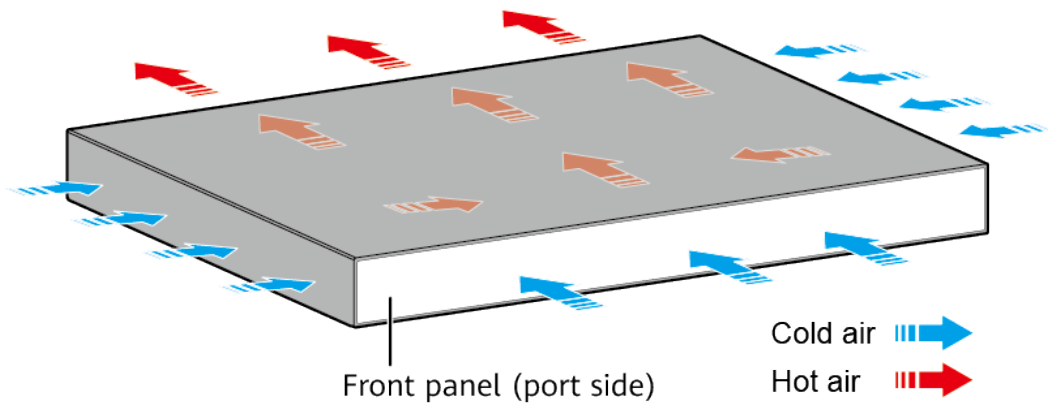
The S5731-S48T4X has similar indicators to those on the S5731-S48P4X except that the S5731-S48T4X does not have a PoE mode indicator. For details, see the S5731-S48P4X.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1238 Technical specifications of the S5731-S48T4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.01 kg (11.05 lb)
Weight with packaging [kg(lb)]	7.54 kg (16.62 lb)
Typical power consumption [W]	78 W
Typical heat dissipation [BTU/hour]	266.14 BTU/hour
Maximum power consumption [W]	111 W
Maximum heat dissipation [BTU/hour]	378.74 BTU/hour
Static power consumption [W]	50 W
MTBF [years]	73.81 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.62 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.94 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC; 45–65 Hz High-voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications depend on the pluggable power modules in use. For details, see the related power module specifications.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	<ul style="list-style-type: none"> Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air flows in from the left, right, and front, and flows out from the rear.
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.10 S5731-S48T4X-A (98011854)

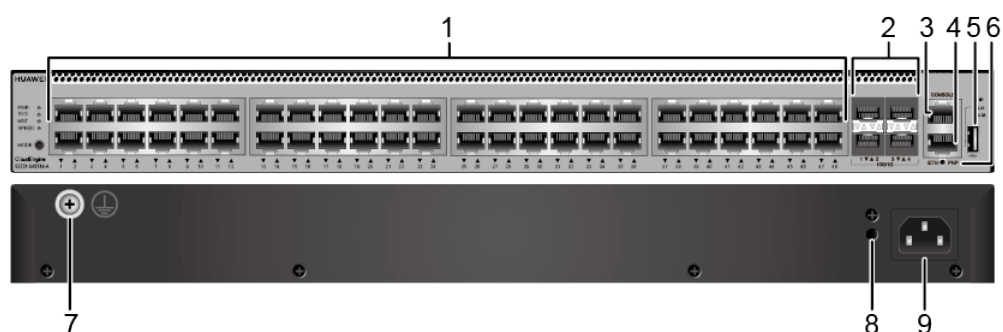
Overview

Table 4-1239 Basic information about the S5731-S48T4X-A

Item	Details
Description	S5731-S48T4X-A (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011854
Model	S5731-S48T4X-A
First supported version	V200R021C10SPC500

Components

Figure 4-489 S5731-S48T4X-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1240 Ports on the S5731-S48T4X-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-490 Indicators on the S5731-S48T4X-A

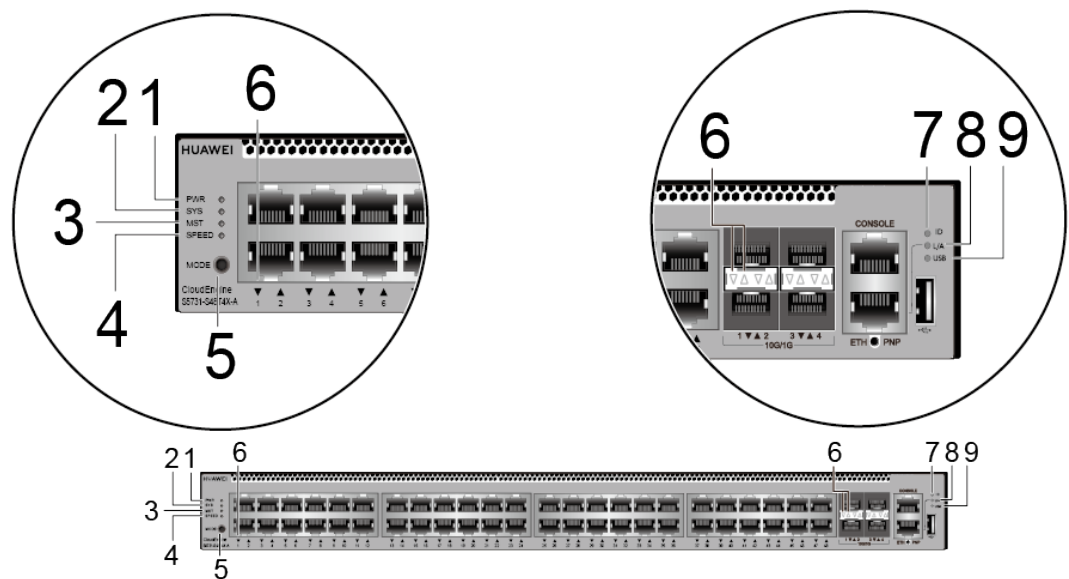


Table 4-1241 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED indicator is off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
6	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see Table 4-1242 and Table 4-1243 .
		Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
7	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
8	L/A	ETH port indicator	-	Off	The ETH port is not connected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
9	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1242 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s.

Table 4-1243 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

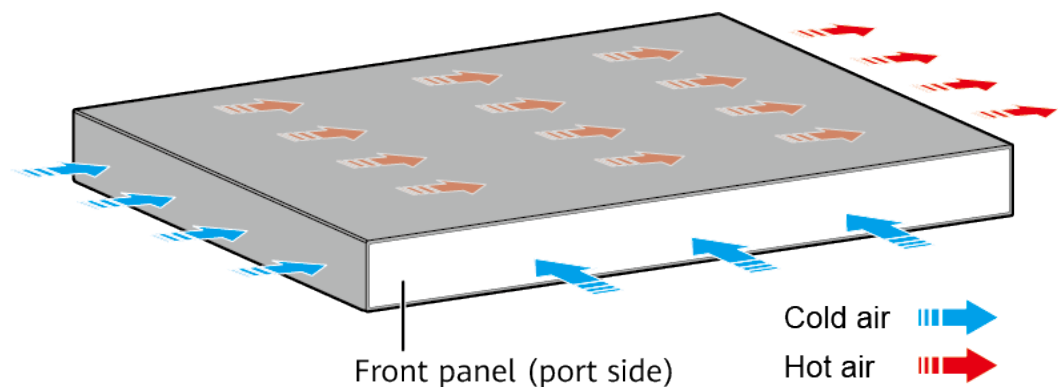
Display Mode	Color	Status	Description
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s. 1000M port: The port is operating at 1000 Mbit/s.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1244 Technical specifications of the S5731-S48T4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 355.0 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.21 kg (7.08 lb)
Weight with packaging [kg(lb)]	4.57 kg (10.08 lb)
Typical power consumption [W]	76 W
Typical heat dissipation [BTU/hour]	259.32 BTU/hour
Maximum power consumption [W]	102 W
Maximum heat dissipation [BTU/hour]	348.03 BTU/hour
Static power consumption [W]	48 W
MTBF [years]	43.17 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	44.90 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.21 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	±6 kV in differential mode, ±6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20

Item	Specification
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.11 S5731-S48T4X-A (98011854-001)

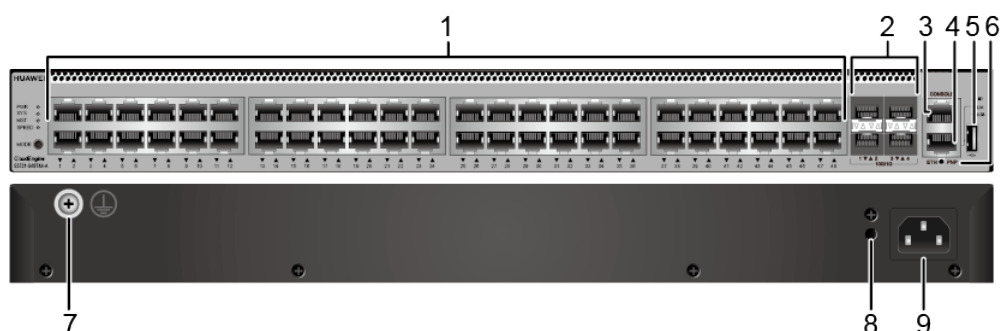
Overview

Table 4-1245 Basic information about the S5731-S48T4X-A

Item	Details
Description	S5731-S48T4X-A (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011854-001
Model	S5731-S48T4X-A
First supported version	V200R021C10SPC600
Supported Patch Version	If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.

Components

Figure 4-491 S5731-S48T4X-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1246 Ports on the S5731-S48T4X-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-492 Indicators on the S5731-S48T4X-A

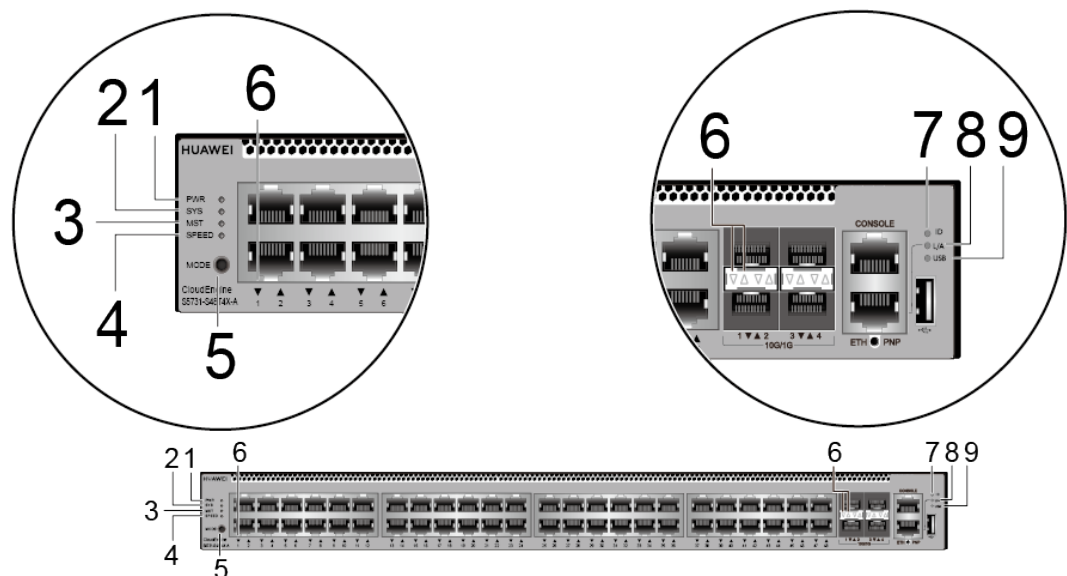


Table 4-1247 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none">• If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled.• If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	<ul style="list-style-type: none">• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch.• When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port.• When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED indicator is off.</p> <p>NOTE</p> <p>Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none">• If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:<ul style="list-style-type: none">• If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.• If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.• If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
6	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see Table 4-1248 and Table 4-1249 .
		Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
7	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
8	L/A	ETH port indicator	-	Off	The ETH port is not connected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
9	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1248 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s.

Table 4-1249 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

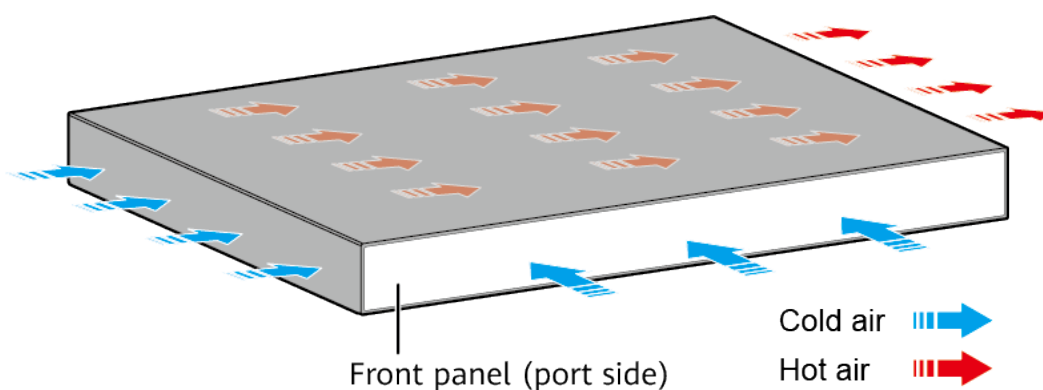
Display Mode	Color	Status	Description
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s. 1000M port: The port is operating at 1000 Mbit/s.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1250 Technical specifications of the S5731-S48T4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 355.0 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.21 kg (7.08 lb)
Weight with packaging [kg(lb)]	4.57 kg (10.08 lb)
Typical power consumption [W]	76 W
Typical heat dissipation [BTU/hour]	259.32 BTU/hour
Maximum power consumption [W]	102 W
Maximum heat dissipation [BTU/hour]	348.03 BTU/hour
Static power consumption [W]	48 W
MTBF [years]	43.17 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	44.90 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.21 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100-240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in

Item	Specification
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.12 S5731-S48P4X (02353AJH/02353AJH-001/02353AJH-003)

Version Mapping

Table 4-1251 lists the mapping between the S5731-S48P4X chassis and software versions.

Table 4-1251 Version mapping

Series	Model	Software Version
S5731-S	S5731-S48P4X	02353AJH: V200R019C00 and later versions 02353AJH-001: V200R020C10 and later versions 02353AJH-003: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.)

Appearance and Structure

Figure 4-493 S5731-S48P4X (02353AJH) appearance

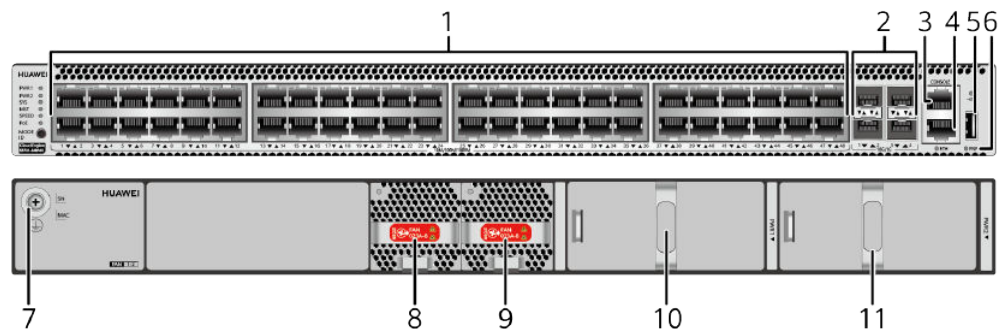
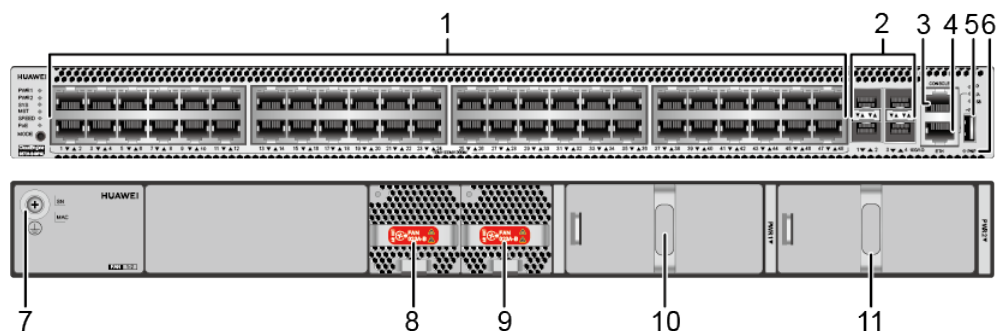


Figure 4-494 S5731-S48P4X (02353AJH-001/02353AJH-003) appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
9	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	10	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions)
11	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1252](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1252 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1253](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1253 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1254](#).

Table 4-1254 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1255](#) describes the attributes of an ETH management port.

Table 4-1255 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

 NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-495 Indicators on the S5731-S48P4X (02353AJH)

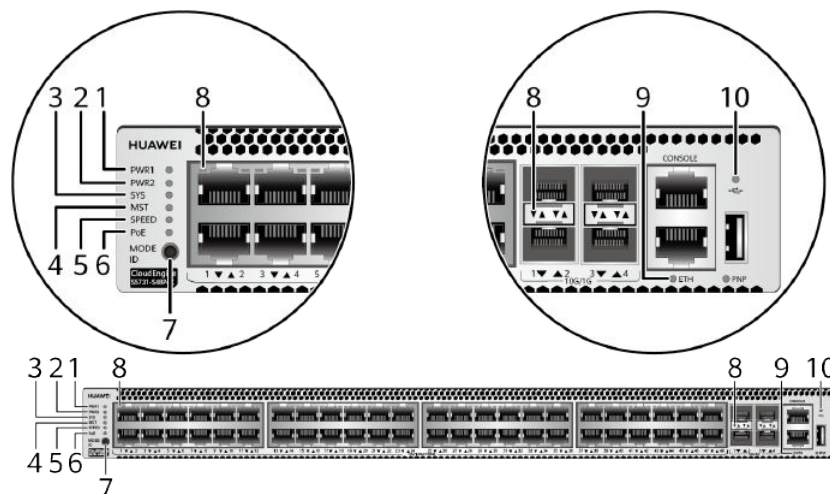


Figure 4-496 Indicators on the S5731-S48P4X (02353AJH-001/02353AJH-003)

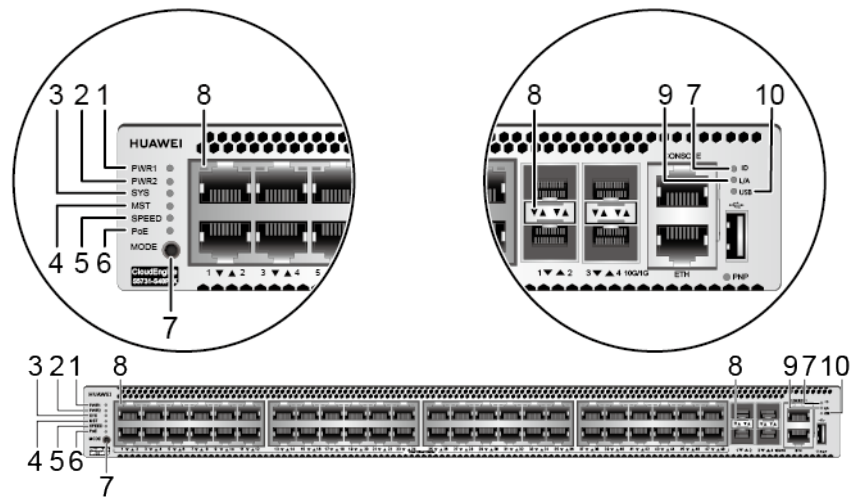


Table 4-1256 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	<p>The switch has two power modules installed. Any of the following situations occurs in power module slot 2:</p> <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> • If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. • If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none">If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled.If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>
	ID	ID indicator NOTE The mode switch button on the 02353AJ H has an ID indicator.	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.

No.	Indicator	Name	Color	Status	Description
8	-	Electrical service port indicator (one indicator for each port)	The indicator in the upper left corner of a port indicates the indicator of a port at the top, and the indicator in the upper right corner indicates the indicator of a port at the bottom.		Meanings of service port indicators vary in different modes. For details, see Table 4-1257 and Table 4-1258 .
		Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
9	ETH	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1257 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	Green	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
		Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
		Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-1258 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s. 1000M port: The port is operating at 1000 Mbit/s.

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1259 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	-	760 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W AC (110 V)	-	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 43 802.3at (30 W per port): 22
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	Versions earlier than V200R021C10: 1330 W V200R021C10 and later versions: 1520 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48

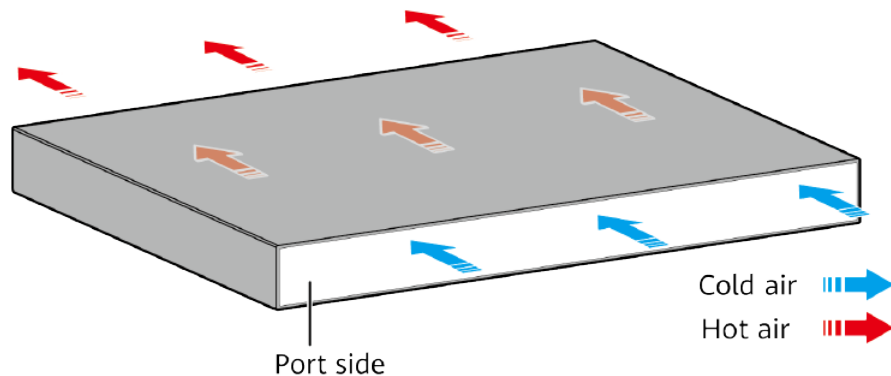
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	-	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
600 W AC (110 V)	-	95 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 6 802.3at (30 W per port): 3
600 W AC (220 V)	600 W AC (220 V)	950 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 31
600 W AC (110 V)	600 W AC (110 V)	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 44

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731-S48P4X uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1260](#) lists technical specifications of the S5731-S48P4X.

Table 4-1260 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	54.96 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.8 kg (19.40 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Not providing the PoE function: 132 W ● 100% PoE loads: 1750 W (PoE: 1440 W)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	108 W
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification

Item	Description
Part number	02353AJH 02353AJH-001 02353AJH-003

4.25.13 S5731-S32ST4X (98011813)

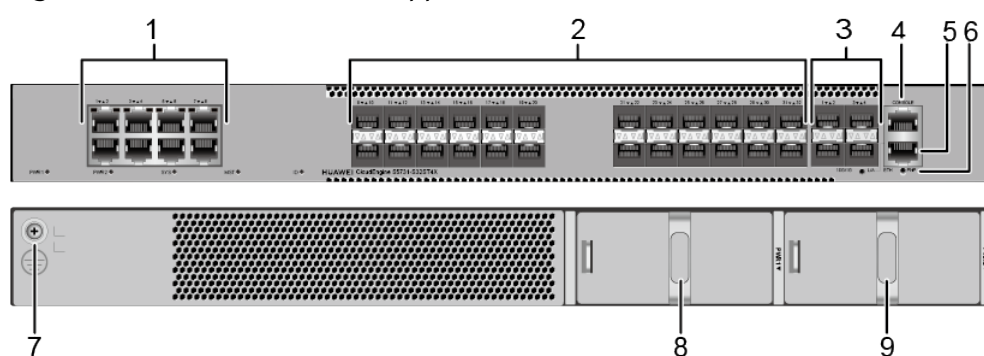
Overview

Table 4-1261 Basic information about the S5731-S32ST4X

Item	Details
Description	S5731-S32ST4X(8*10/100/1000BASE-T ports, 24*GE SFP ports, 4*10GE SFP+ ports, without power module)
Part Number	98011813
Model	S5731-S32ST4X
First supported version	V200R021C01

Components

Figure 4-497 S5731-S32ST4X appearance



1	Eight 10/100/1000BASE-T ports	2	Twenty-four 100/1000BASE-X ports NOTE In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.
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3	Four 10GE SFP+ ports	4	One console port
5	One ETH management port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	-	-

Ports

Table 4-1262 Ports on the S5731-S32ST4X

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-498 Indicators on the S5731-S32ST4X

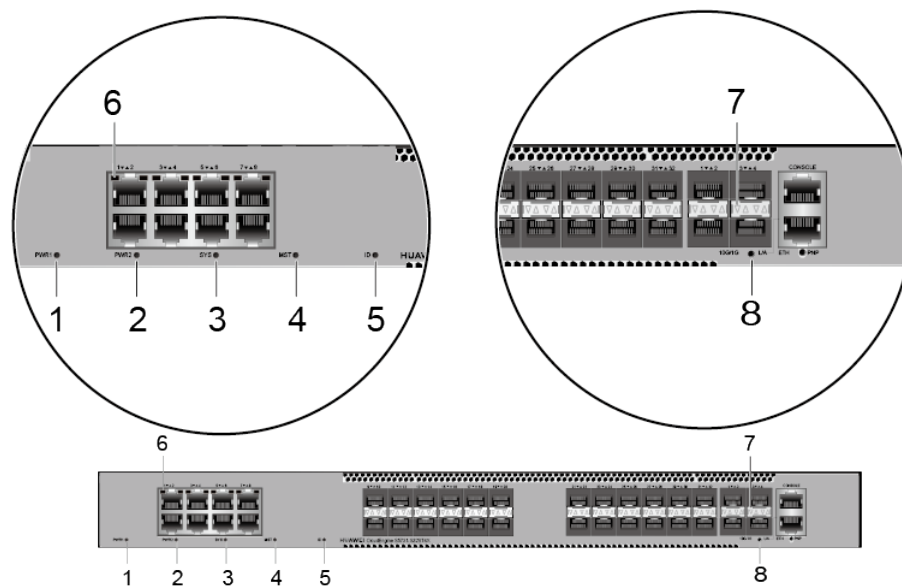


Table 4-1263 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Blinking	The switch is the master switch in a stack or a standalone switch.
5	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
6	-	Service port indicator (electrical port) The indicator in the upper left corner of a port indicates the indicator of a port at the top, and the indicator in the upper right	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.

No.	Indicator	Name	Color	Status	Description
		corner indicates the indicator of a port at the bottom.		Blinking	The port is sending or receiving data.
7	-	Service port indicator (optical port) Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead	Green	Off	The port is not connected or has been shut down.
				Steady on	A link has been established on the port.
			Yellow	Off	The port is not sending or receiving data.

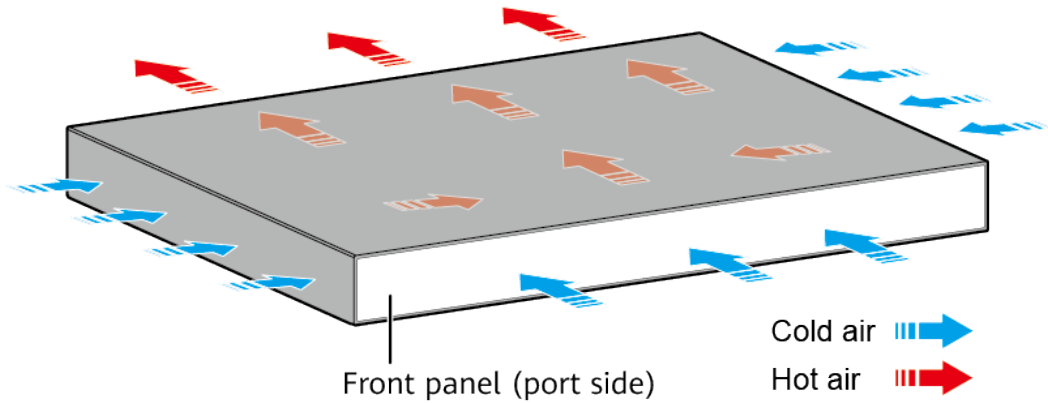
No.	Indicator	Name	Color	Status	Description
		indicates a port at the top. NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.		Blinking	The port is sending or receiving data.
8	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The Eth port is sending or receiving data.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1264 Technical specifications of the S5731-S32ST4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.40 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	4.9 kg (10.8 lb)
Weight with packaging [kg(lb)]	7.43 kg (16.38 lb)
Typical power consumption [W]	73.56 W
Typical heat dissipation [BTU/hour]	250.99 BTU/hour
Maximum power consumption [W]	104.82 W (150 W AC or 180 W DC) 119.23 W (600 W AC)

Item	Specification
Maximum heat dissipation [BTU/hour]	357.66 (150 W AC or 180 W DC) 406.82 (600 W AC)
Static power consumption [W]	44.5 W
MTBF [years]	71.54 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.79 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	3
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC; 45 Hz to 65 HzHigh-voltage DC input: 190 V DC to 290 V DCDC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications depend on the pluggable power modules in use. For details, see the related power module specifications.
Memory	2 GB
Flash memory	The physical space is 1 GB. You can run the display version command to view the actual available space.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	<ul style="list-style-type: none">Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common modeConfigured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.14 S5731-S32ST4X (98011813-002)

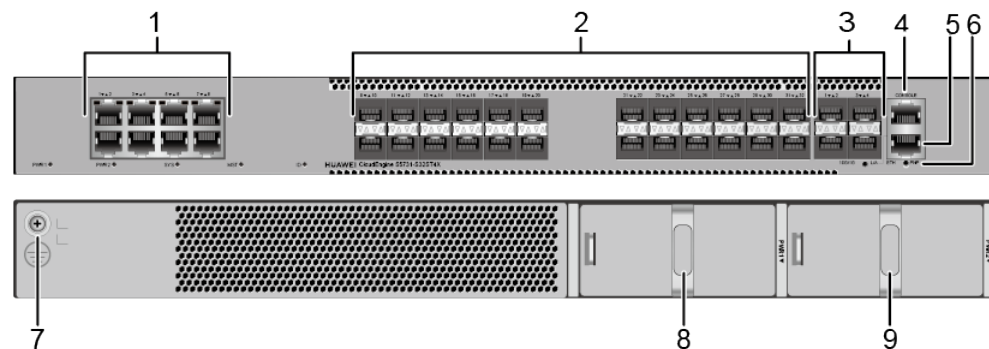
Overview

Table 4-1265 Basic information about the S5731-S32ST4X

Item	Details
Description	S5731-S32ST4X(8*10/100/1000BASE-T ports, 24*GE SFP ports, 4*10GE SFP+ ports, without power module)
Part Number	98011813-002
Model	S5731-S32ST4X
First supported version	V200R021C10SPC600

Components

Figure 4-499 S5731-S32ST4X appearance



1	Eight 10/100/1000BASE-T ports	2	Twenty-four 100/1000BASE-X ports NOTE In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.
3	Four 10GE SFP+ ports	4	One console port

5	One ETH management port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	-	-

Ports

Table 4-1266 Ports on the S5731-S32ST4X

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-500 Indicators on the S5731-S32ST4X

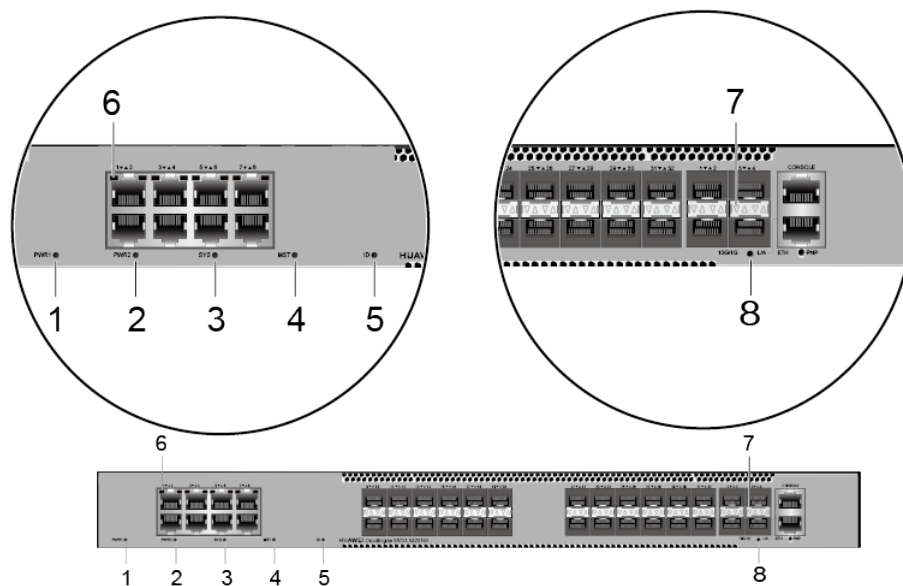


Table 4-1267 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Blinking	The switch is the master switch in a stack or a standalone switch.
5	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
6	-	Service port indicator (electrical port) The indicator in the upper left corner of a port indicates the indicator of a port at the top, and the indicator in the upper right	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.

No.	Indicator	Name	Color	Status	Description
		corner indicates the indicator of a port at the bottom.		Blinking	The port is sending or receiving data.
7	-	Service port indicator (optical port) Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead	Green	Off	The port is not connected or has been shut down.
				Steady on	A link has been established on the port.
			Yellow	Off	The port is not sending or receiving data.

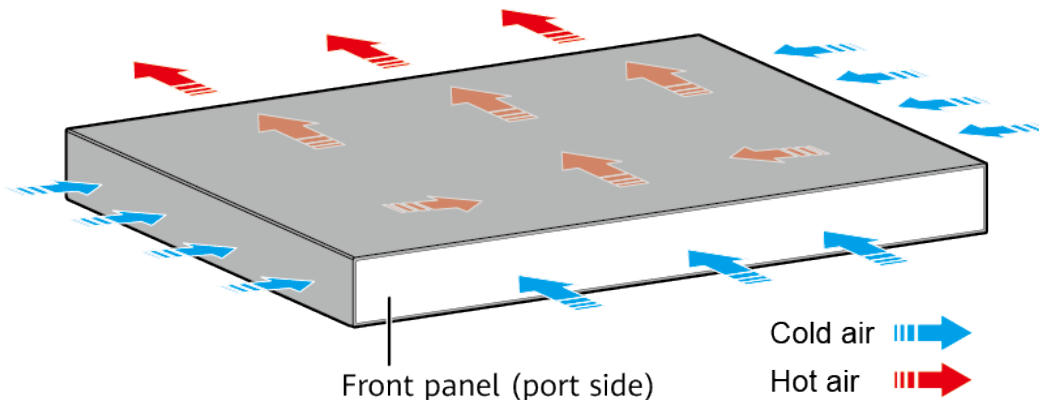
No.	Indicator	Name	Color	Status	Description
		indicates a port at the top. NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.		Blinking	The port is sending or receiving data.
8	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The Eth port is sending or receiving data.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1268 Technical specifications of the S5731-S32ST4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	4.9 kg (10.8 lb)
Weight with packaging [kg(lb)]	7.43 kg (16.38 lb)
Typical power consumption [W]	73.56 W
Typical heat dissipation [BTU/hour]	250.99 BTU/hour
Maximum power consumption [W]	104.82 W (150 W AC or 180 W DC) 119.23 W (600 W AC)

Item	Specification
Maximum heat dissipation [BTU/hour]	357.66 (150 W AC or 180 W DC) 406.82 (600 W AC)
Static power consumption [W]	44.5 W
MTBF [years]	71.54 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.79 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	3
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode ● Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.15 S5731-S32ST4X-A (98011808)

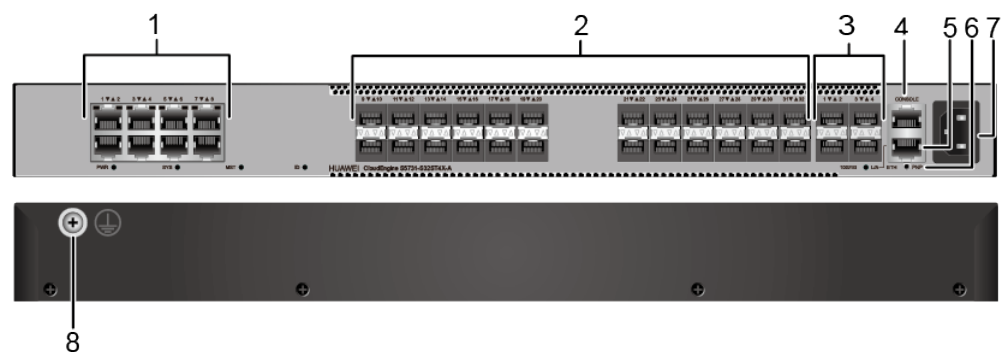
Overview

Table 4-1269 Basic information about the S5731-S32ST4X-A

Item	Details
Description	S5731-S32ST4X-A(8*10/100/1000BASE-T ports, 24*GE SFP ports, 4*10GE SFP+ ports, AC power, front access)
Part Number	98011808
Model	S5731-S32ST4X-A
First supported version	V200R021C01

Components

Figure 4-501 S5731-S32ST4X-A appearance



1	Eight 10/100/1000BASE-T ports	2	Twenty-four 100/1000BASE-X ports NOTE In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.
3	Four 10GE SFP+ ports	4	One console port

5	One ETH management port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	AC socket NOTE It is used with an AC power cable .	8	Ground screw NOTE It is used with a ground cable .

Ports

Table 4-1270 Ports on the S5731-S32ST4X-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-502 Indicators on the S5731-S32ST4X-A

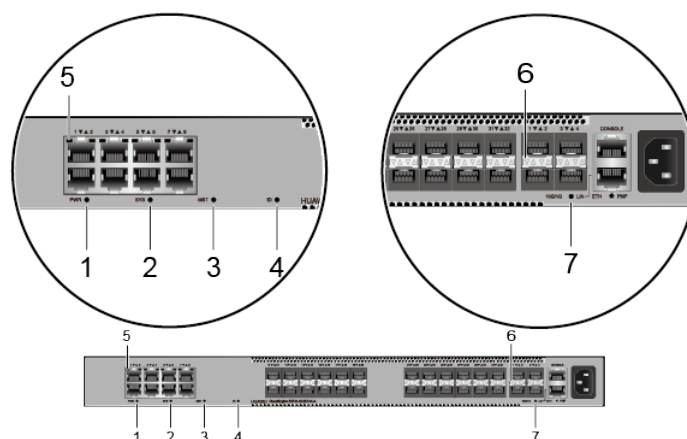


Table 4-1271 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Blinking	The switch is the master switch in a stack or a standalone switch.
4	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
5	-	Service port indicator (electrical port) The indicator in the upper left corner of a port	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.

No.	Indicator	Name	Color	Status	Description
		indicates the indicator of a port at the top, and the indicator in the upper right corner indicates the indicator of a port at the bottom.		Blinking	The port is sending or receiving data.
6	-	Service port indicator (optical port) Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports.	Green	Off	The port is not connected or has been shut down.
				Steady on	A link has been established on the port.
			Yellow	Off	The port is not sending or receiving data.

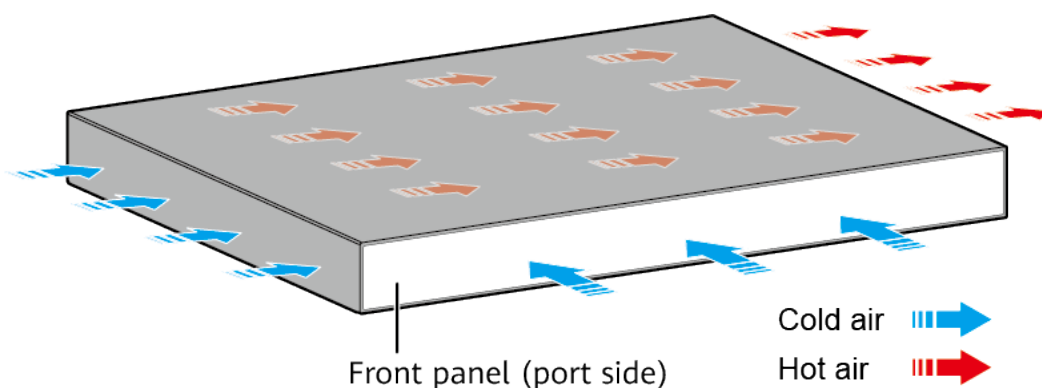
No.	Indicator	Name	Color	Status	Description
		A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top. NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.		Blinking	The port is sending or receiving data.
7	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The Eth port is sending or receiving data.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1272 Technical specifications of the S5731-S32ST4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.40 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.40 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 355 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.13 kg (6.9 lb)
Weight with packaging [kg(lb)]	4.49 kg (9.9 lb)

Item	Specification
Typical power consumption [W]	66.85 W
Typical heat dissipation [BTU/hour]	228.10 BTU/hour
Maximum power consumption [W]	93.92 W
Maximum heat dissipation [BTU/hour]	320.46 BTU/hour
Static power consumption [W]	41.71 W
MTBF [years]	32.56 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	41.42 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.74 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	- AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	- AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB

Item	Specification
Flash memory	The physical space is 1 GB. You can run the display version command to view the actual available space.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode; ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.16 S5731-S32ST4X-A (98011808-001)

Overview

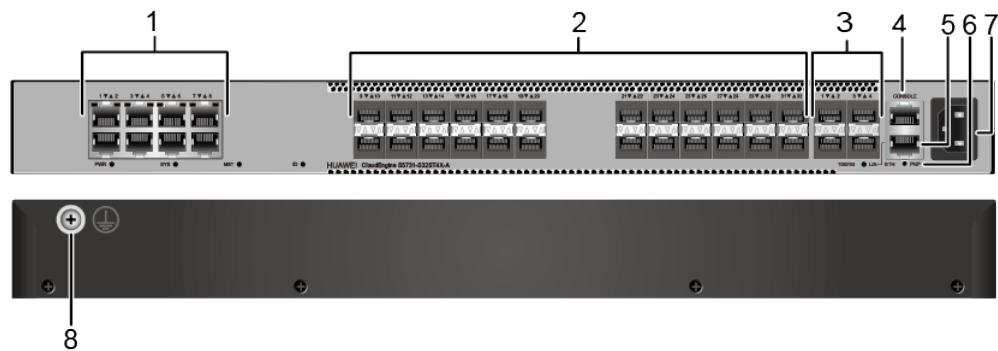
Table 4-1273 Basic information about the S5731-S32ST4X-A

Item	Details
Description	S5731-S32ST4X-A(8*10/100/1000BASE-T ports, 24*GE SFP ports, 4*10GE SFP+ ports, AC power, front access)
Part Number	98011808-001

Item	Details
Model	S5731-S32ST4X-A
First supported version	V200R021C10SPC600

Components

Figure 4-503 S5731-S32ST4X-A appearance



1	Eight 10/100/1000BASE-T ports	2	Twenty-four 100/1000BASE-X ports NOTE In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.
3	Four 10GE SFP+ ports	4	One console port
5	One ETH management port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	AC socket NOTE It is used with an AC power cable .	8	Ground screw NOTE It is used with a ground cable .

Ports

Table 4-1274 Ports on the S5731-S32ST4X-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s. In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-504 Indicators on the S5731-S32ST4X-A

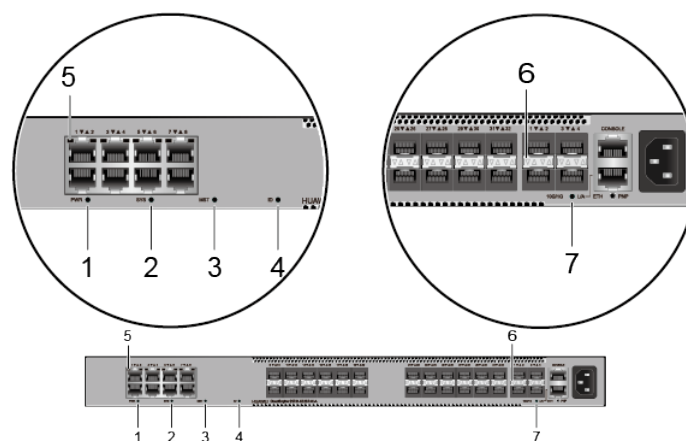


Table 4-1275 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Blinking	The switch is the master switch in a stack or a standalone switch.
4	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
5	-	Service port indicator (electrical port) The indicator in the upper left corner of a port	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.

No.	Indicator	Name	Color	Status	Description
		indicates the indicator of a port at the top, and the indicator in the upper right corner indicates the indicator of a port at the bottom.		Blinking	The port is sending or receiving data.
6	-	Service port indicator (optical port) Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrows show the positions of ports.	Green	Off	The port is not connected or has been shut down.
				Steady on	A link has been established on the port.
			Yellow	Off	The port is not sending or receiving data.

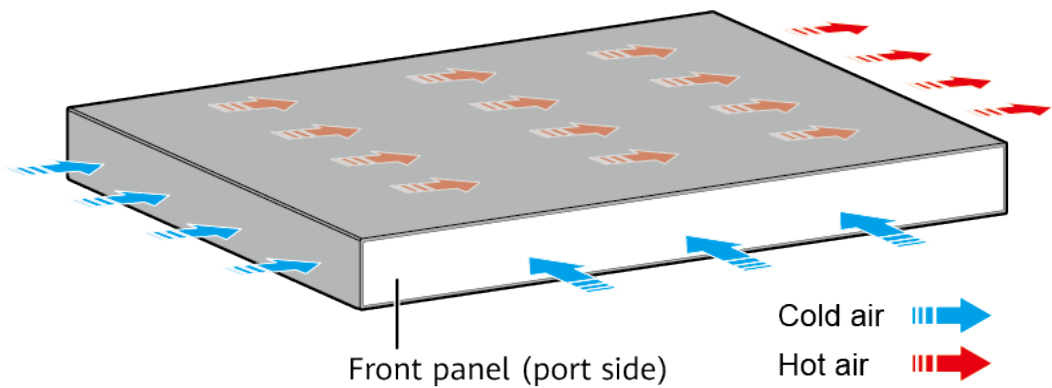
No.	Indicator	Name	Color	Status	Description
		A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top. NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.		Blinking	The port is sending or receiving data.
7	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The Eth port is sending or receiving data.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1276 Technical specifications of the S5731-S32ST4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 355 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.13 kg (6.9 lb)
Weight with packaging [kg(lb)]	4.49 kg (9.9 lb)

Item	Specification
Typical power consumption [W]	66.85 W
Typical heat dissipation [BTU/hour]	228.10 BTU/hour
Maximum power consumption [W]	93.92 W
Maximum heat dissipation [BTU/hour]	320.46 BTU/hour
Static power consumption [W]	41.71 W
MTBF [years]	32.56 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	41.42 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.74 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	- AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	- AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB

Item	Specification
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	Differential mode: ± 6 kV; common mode: ± 6 kV
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.17 S5731-S32ST4X-D (98011810)

Overview

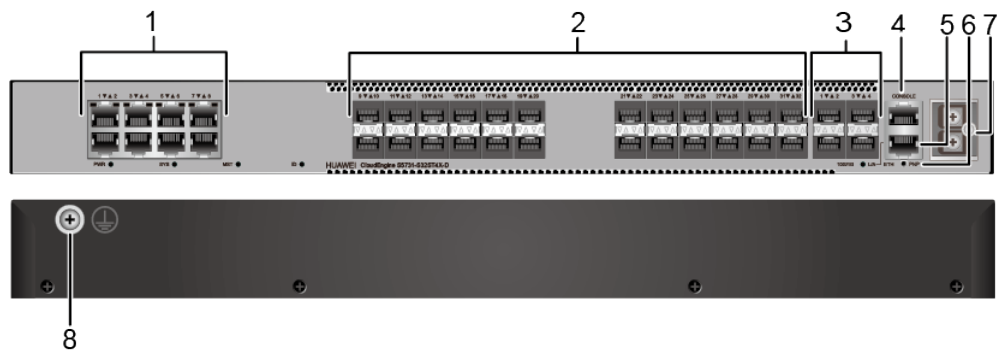
Table 4-1277 Basic information about the S5731-S32ST4X-D

Item	Details
Description	S5731-S32ST4X-D(8*10/100/1000BASE-T ports, 24*GE SFP ports, 4*10GE SFP+ ports, DC power, front access)
Part Number	98011810

Item	Details
Model	S5731-S32ST4X-D
First supported version	V200R021C01

Components

Figure 4-505 S5731-S32ST4X-D appearance



1	Eight 10/100/1000BASE-T ports	2	Twenty-four 100/1000BASE-X ports NOTE In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.
3	Four 10GE SFP+ ports	4	One console port
5	One ETH management port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	DC power terminal NOTE It is used with DC Power Cable .	8	Ground screw NOTE It is used with a ground cable .

Ports

Table 4-1278 Ports on the S5731-S32ST4X-D

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s. In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

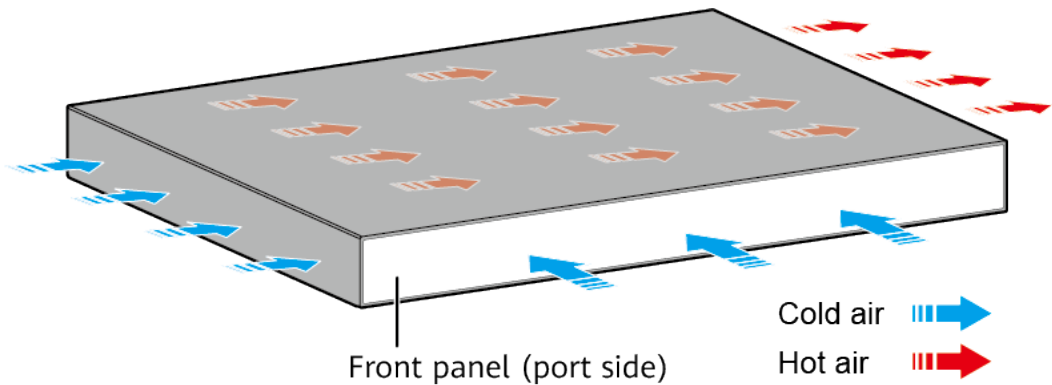
The S5731-S32ST4X-D has the same types of indicators as the S5731-S32ST4X-A. For details, see the S5731-S32ST4X-A.

Power Supply System

The switch has a built-in DC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1279 Technical specifications of the S5731-S32ST4X-D

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.40 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 236.0 mm (1.72 in. x 17.40 in. x 9.29 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 355 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.98 kg (6.57 lb)
Weight with packaging [kg(lb)]	4.34 kg (9.57 lb)
Typical power consumption [W]	69.46 W
Typical heat dissipation [BTU/hour]	237.00 BTU/hour
Maximum power consumption [W]	93.39 W
Maximum heat dissipation [BTU/hour]	318.66 BTU/hour
Static power consumption [W]	41.42 W
MTBF [years]	32.56 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	41.42 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.74 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	DC built-in
Rated input voltage [V]	-48 V DC to -60 V DC
Input voltage range [V]	-38.4 V DC to -72 V DC
Maximum input current [A]	6 A
Memory	2 GB

Item	Specification
Flash memory	The physical space is 1 GB. You can run the display version command to view the actual available space.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 2 kV in differential mode; ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.18 S5731-S32ST4X-D (98011810-001)

Overview

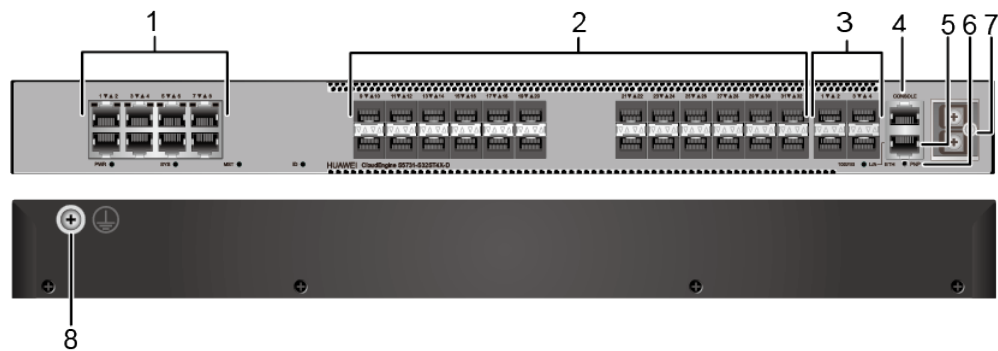
Table 4-1280 Basic information about the S5731-S32ST4X-D

Item	Details
Description	S5731-S32ST4X-D(8*10/100/1000BASE-T ports, 24*GE SFP ports, 4*10GE SFP+ ports, DC power, front access)
Part Number	98011810-001

Item	Details
Model	S5731-S32ST4X-D
First supported version	V200R021C10SPC600

Components

Figure 4-506 S5731-S32ST4X-D appearance



1	Eight 10/100/1000BASE-T ports	2	Twenty-four 100/1000BASE-X ports NOTE In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.
3	Four 10GE SFP+ ports	4	One console port
5	One ETH management port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	DC power terminal NOTE It is used with DC Power Cable .	8	Ground screw NOTE It is used with a ground cable .

Ports

Table 4-1281 Ports on the S5731-S32ST4X-D

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

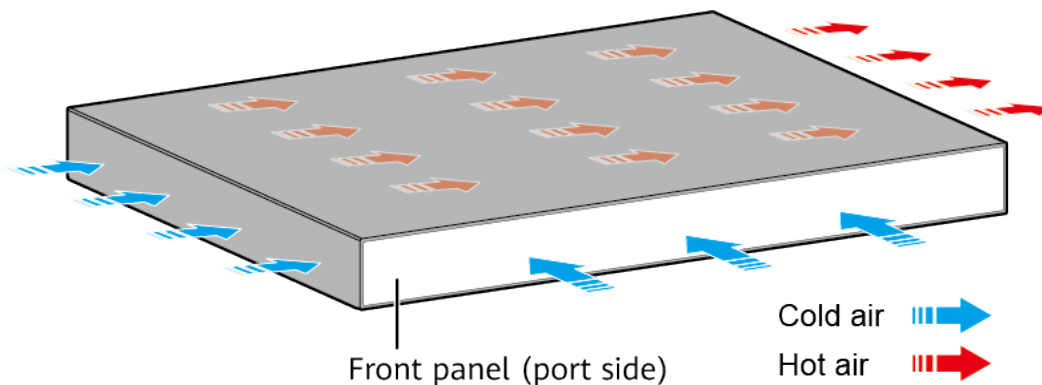
The S5731-S32ST4X-D has the same types of indicators as the S5731-S32ST4X-A. For details, see the S5731-S32ST4X-A.

Power Supply System

The switch has a built-in DC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1282 Technical specifications of the S5731-S32ST4X-D

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.40 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 236.0 mm (1.72 in. x 17.40 in. x 9.29 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 355 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.98 kg (6.57 lb)
Weight with packaging [kg(lb)]	4.34 kg (9.57 lb)
Typical power consumption [W]	69.46 W
Typical heat dissipation [BTU/hour]	237.00 BTU/hour
Maximum power consumption [W]	93.39 W
Maximum heat dissipation [BTU/hour]	318.66 BTU/hour
Static power consumption [W]	41.42 W
MTBF [years]	32.56 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	41.42 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.74 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	DC built-in
Rated input voltage [V]	–48 V DC to –60 V DC
Input voltage range [V]	–38.4 V DC to –72 V DC
Maximum input current [A]	6 A
Memory	2 GB

Item	Specification
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.19 S5731-S48S4X (98011805)

Overview

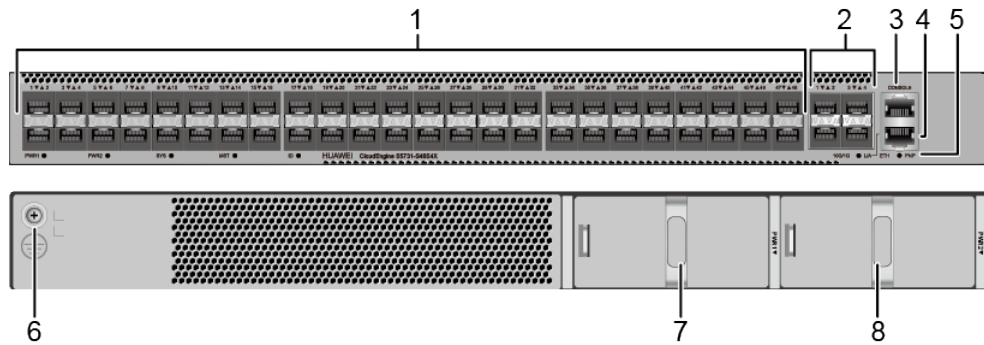
Table 4-1283 Basic information about the S5731-S48S4X

Item	Details
Description	S5731-S48S4X(48*GE SFP ports, 4*10GE SFP+ ports, without power module)
Part Number	98011805
Model	S5731-S48S4X

Item	Details
First supported version	V200R021C01

Components

Figure 4-507 S5731-S48S4X appearance



1	Forty-eight 100/1000BASE-X ports NOTE In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port
5	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	Ground screw NOTE It is used with a ground cable .

7	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	8	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)
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Ports

Table 4-1284 Ports on the S5731-S48S4X

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

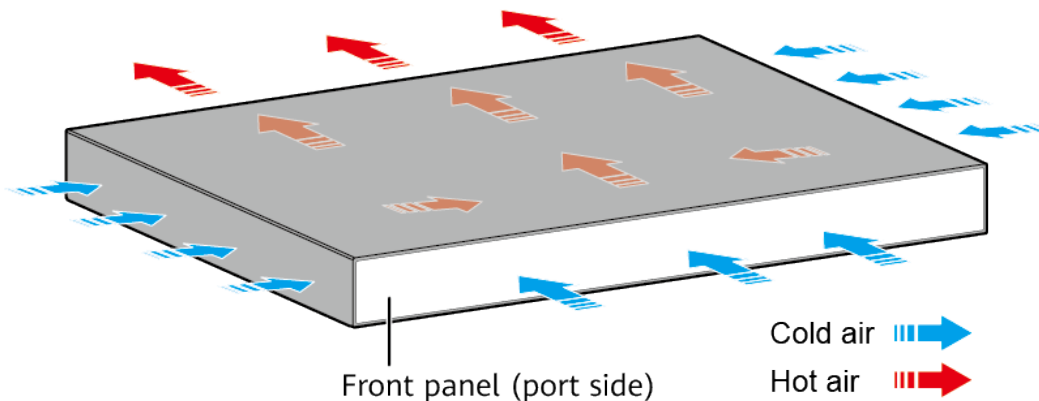
The S5731-S48S4X has the same types of indicators as the S5731-S32ST4X. For details, see the S5731-S32ST4X.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1285 Technical specifications of the S5731-S48S4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.40 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.12 kg (11.29 lb)
Weight with packaging [kg(lb)]	7.65 kg (16.87 lb)
Typical power consumption [W]	93.69 W
Typical heat dissipation [BTU/hour]	319.68 BTU/hour
Maximum power consumption [W]	128.89 W (150 W AC or 180 W DC) 141.96 W (600 W AC)
Maximum heat dissipation [BTU/hour]	439.79 (150 W AC or 180 W DC) 484.38 (600 W AC)
Static power consumption [W]	50.44 W

Item	Specification
MTBF [years]	64.97 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.79 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	3
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC; 45 Hz to 65 HzHigh-voltage DC input: 190 V DC to 290 V DCDC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications depend on the pluggable power modules in use. For details, see the related power module specifications.
Memory	2 GB
Flash memory	The physical space is 1 GB. You can run the display version command to view the actual available space.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none">Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common modeConfigured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.20 S5731-S48S4X (98011805-001)

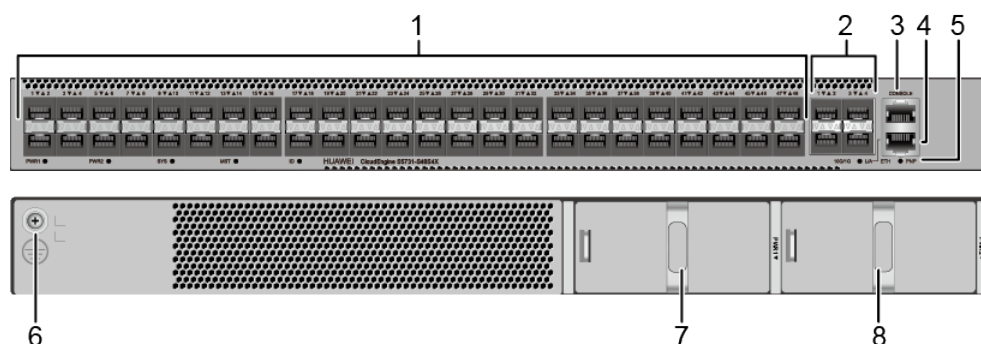
Overview

Table 4-1286 Basic information about the S5731-S48S4X

Item	Details
Description	S5731-S48S4X(48*GE SFP ports, 4*10GE SFP+ ports, without power module)
Part Number	98011805-001
Model	S5731-S48S4X
First supported version	V200R021C10SPC600

Components

Figure 4-508 S5731-S48S4X appearance



1	Forty-eight 100/1000BASE-X ports NOTE In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	8	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)

Ports

Table 4-1287 Ports on the S5731-S48S4X

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

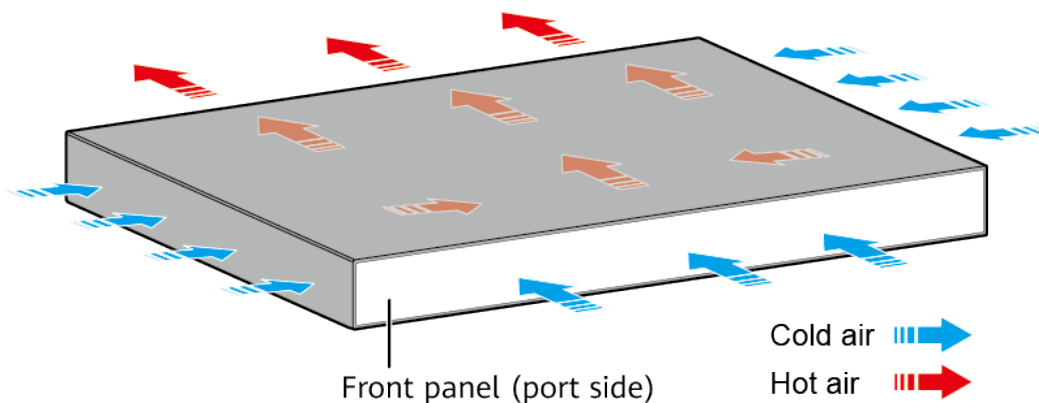
The S5731-S48S4X has the same types of indicators as the S5731-S32ST4X. For details, see the S5731-S32ST4X.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1288 Technical specifications of the S5731-S48S4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.12 kg (11.29 lb)
Weight with packaging [kg(lb)]	7.65 kg (16.87 lb)
Typical power consumption [W]	93.69 W
Typical heat dissipation [BTU/hour]	319.68 BTU/hour
Maximum power consumption [W]	128.89 W (150 W AC or 180 W DC) 141.96 W (600 W AC)
Maximum heat dissipation [BTU/hour]	439.79 (150 W AC or 180 W DC) 484.38 (600 W AC)
Static power consumption [W]	50.44 W

Item	Specification
MTBF [years]	64.97 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.79 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	3
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode ● Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.21 S5731-S48S4X-A (98011801)

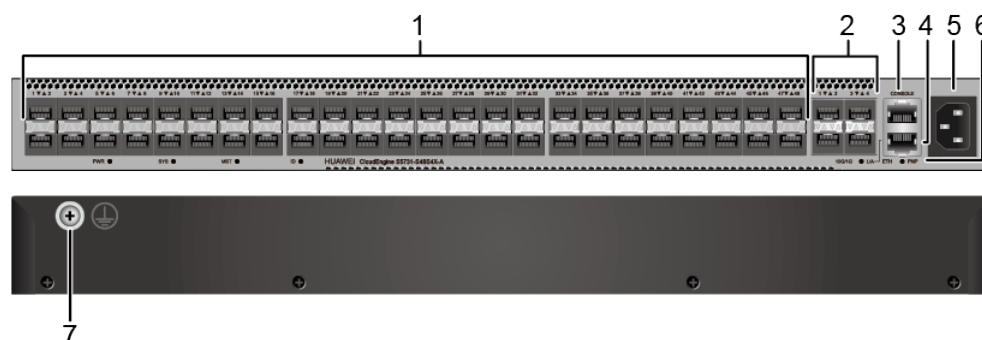
Overview

Table 4-1289 Basic information about the S5731-S48S4X-A

Item	Details
Description	S5731-S48S4X-A(48*GE SFP ports, 4*10GE SFP+ ports, AC power, front access)
Part Number	98011801
Model	S5731-S48S4X-A
First supported version	V200R021C01

Components

Figure 4-509 S5731-S48S4X-A appearance



1	Forty-eight 100/1000BASE-X ports NOTE In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port

5	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	6	<p>One PNP button</p> <p>NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	-	-

Ports

Table 4-1290 Ports on the S5731-S48S4X-A

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

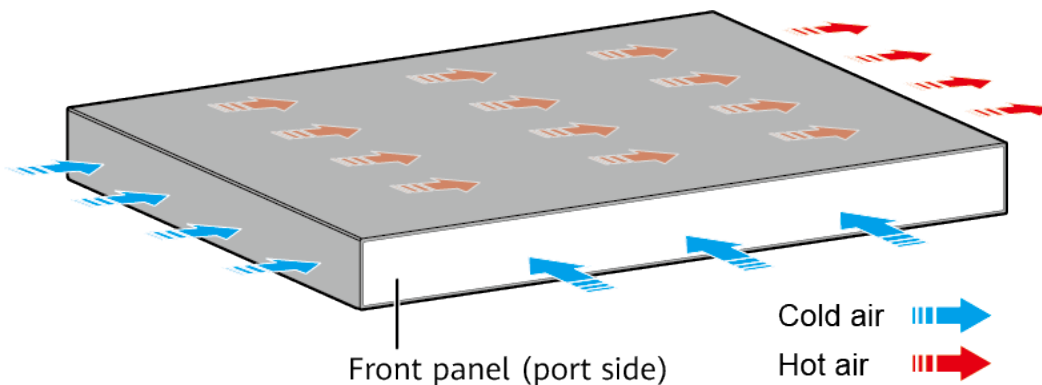
The S5731-S48S4X-A has the same types of indicators as the S5731-S32ST4X-A. For details, see the S5731-S32ST4X-A.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1291 Technical specifications of the S5731-S48S4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.40 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.40 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 355 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.49 kg (7.69 lb)
Weight with packaging [kg(lb)]	4.85 kg (10.69 lb)
Typical power consumption [W]	87.89 W
Typical heat dissipation [BTU/hour]	299.89 BTU/hour
Maximum power consumption [W]	121.04 W
Maximum heat dissipation [BTU/hour]	413.00 BTU/hour
Static power consumption [W]	47.28 W
MTBF [years]	31.39 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	41.42 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.74 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	- AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	- AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB

Item	Specification
Flash memory	The physical space is 1 GB. You can run the display version command to view the actual available space.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	±6 kV in differential mode; ±6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.22 S5731-S48S4X-A (98011801-001)

Overview

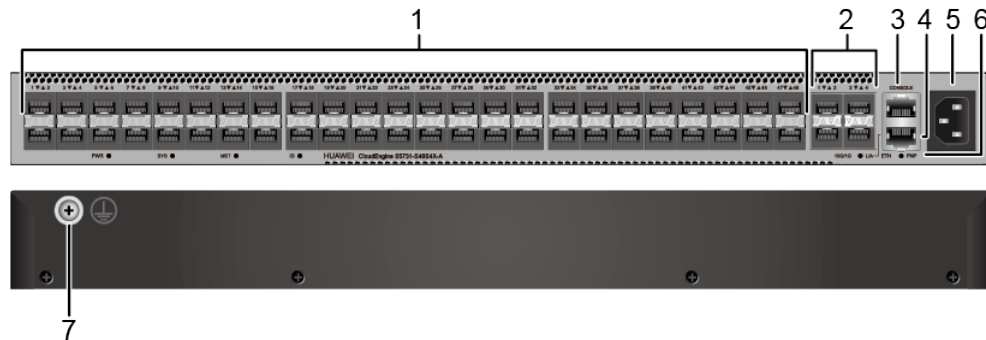
Table 4-1292 Basic information about the S5731-S48S4X-A

Item	Details
Description	S5731-S48S4X-A(48*GE SFP ports, 4*10GE SFP+ ports, AC power, front access)
Part Number	98011801-001
Model	S5731-S48S4X-A

Item	Details
First supported version	V200R021C10SPC600

Components

Figure 4-510 S5731-S48S4X-A appearance



1	Forty-eight 100/1000BASE-X ports NOTE In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port
5	AC socket NOTE It is used with an AC power cable .	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	-	-

Ports

Table 4-1293 Ports on the S5731-S48S4X-A

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

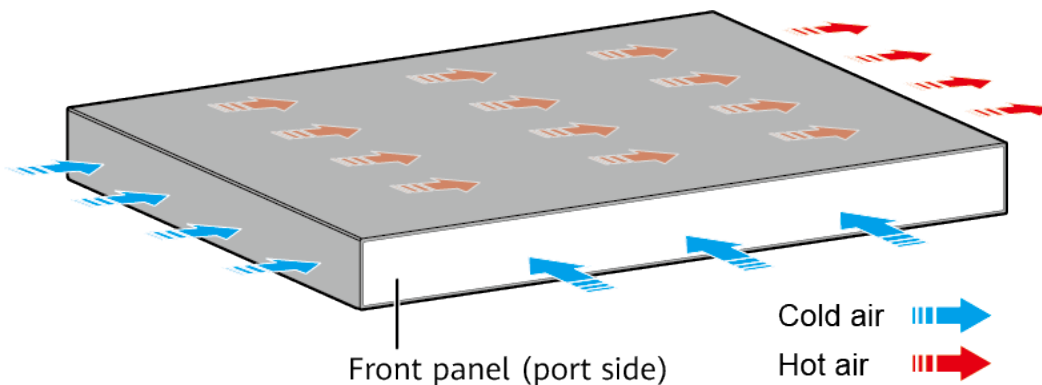
The S5731-S48S4X-A has the same types of indicators as the S5731-S32ST4X-A. For details, see the S5731-S32ST4X-A.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1294 Technical specifications of the S5731-S48S4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 355 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.49 kg (7.69 lb)
Weight with packaging [kg(lb)]	4.85 kg (10.69 lb)
Typical power consumption [W]	87.89 W
Typical heat dissipation [BTU/hour]	299.89 BTU/hour
Maximum power consumption [W]	121.04 W
Maximum heat dissipation [BTU/hour]	413.00 BTU/hour
Static power consumption [W]	47.28 W
MTBF [years]	31.39 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	41.42 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.74 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>

Item	Specification
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	- AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	- AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.23 S5731-S24N4X2Q-A

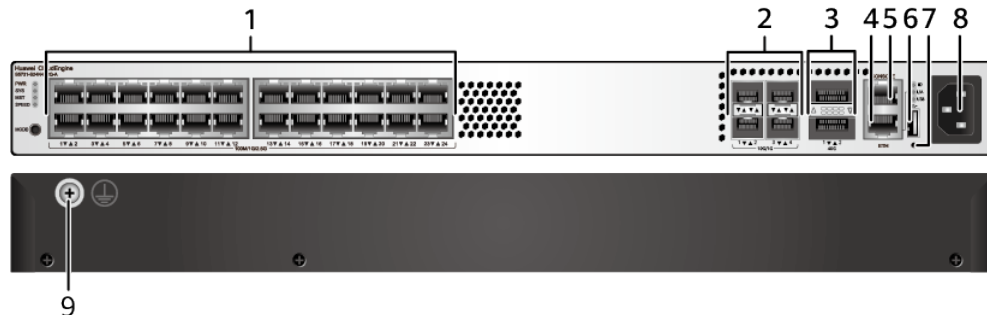
Overview

Table 4-1295 Basic information about the S5731-S24N4X2Q-A

Item	Details
Description	S5731-S24N4X2Q-A(24*100M/1G/2.5G Ethernet ports, 4*10GE SFP+ ports, 2*40GE QSFP ports, AC power, front access)
Part Number	02354VBY
Model	S5731-S24N4X2Q-A
First supported version	V200R022C00

Components

Figure 4-511 S5731-S24N4X2Q-A appearance



1	Twenty-four 100M/1000M/2.5GE BASE-T ports (multi-GE ports)	2	Four 10GE SFP+ ports
3	Two 40GE QSFP+ ports	4	One ETH management port
5	One console port	6	One USB port

7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>
9	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	-	-

Ports

Table 4-1296 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)	
	100M/1000M	2.5GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

Table 4-1297 Ports on the S5731-S24N4X2Q-A

Port	Connector Type	Description	Available Components
100M/1000M/ 2.5GE BASE-T port (multi-GE port)	RJ45	A 100M/1000M/ 2.5GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s.	If the 2.5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category.
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
40GE SFP+ optical port	QSFP+	<p>A 40GE QSFP+ optical port sends and receives service traffic at 40 Gbit/s.</p> <p>A 40GE QSFP+ optical port can be split into four 10GE ports.</p>	<ul style="list-style-type: none"> ● 40GE QSFP+ optical modules ● 1 m, 3 m, and 5 m QSFP+ high-speed copper cables ● 10 m QSFP+ AOC cable ● 2 m QSFP28 dedicated stack cable
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-512 Indicators on the S5731-S24N4X2Q-A

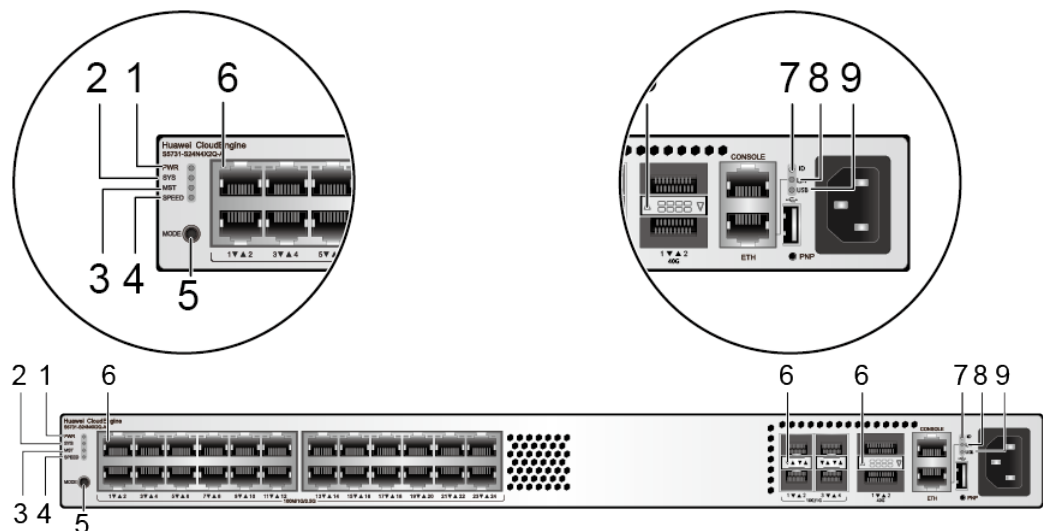


Table 4-1298 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED indicator is off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
6	-	Multi-GE port indicator (one indicator for each port)			Meanings of service port indicators vary in different modes. For details, see Table 4-1299 and Table 4-1300 .
		40GE optical port indicator (one indicator for each port)			

No.	Indicator	Name	Color	Status	Description
		10GE optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
7	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
8	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
9	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1299 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	100M/1000M/2.5GE port: The port is operating at 100 Mbit/s or 1000 Mbit/s.
	Green	Blinking	100M/1000M/2.5GE port: The port is operating at 2.5 Gbit/s. 40GE port: The port is operating at 40 Gbit/s.

Table 4-1300 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.

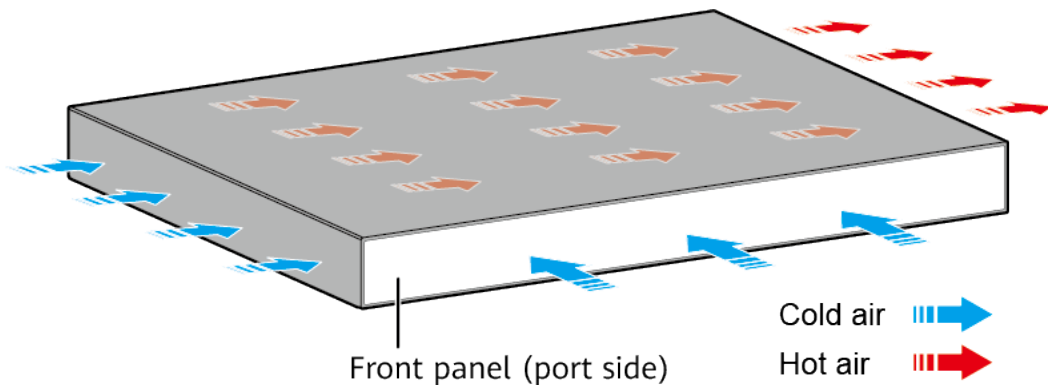
Display Mode	Color	Status	Description
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1301 Technical specifications of the S5731-S24N4X2Q-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 236.0 mm (1.72 in. x 17.4 in. x 9.29 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 547 mm x 357 mm (3.54 in. x 21.54 in. x 14.06 in.)

Item	Specification
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	4.76 kg (10.49 lb)
Weight with packaging [kg(lb)]	5.4 kg(lb)
Typical power consumption [W]	106 W
Typical heat dissipation [BTU/hour]	361.69 BTU/hour
Maximum power consumption [W]	134 W
Maximum heat dissipation [BTU/hour]	457.23 BTU/hour
Static power consumption [W]	70 W
MTBF [years]	40.40 years
MTTR [hours]	2.97 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	43.70 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.70 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none">• The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year.• The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours.• The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB

Item	Specification
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	Differential mode: ± 6 kV; common mode: ± 6 kV
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.24 S5731-S24UN4X2Q

Overview

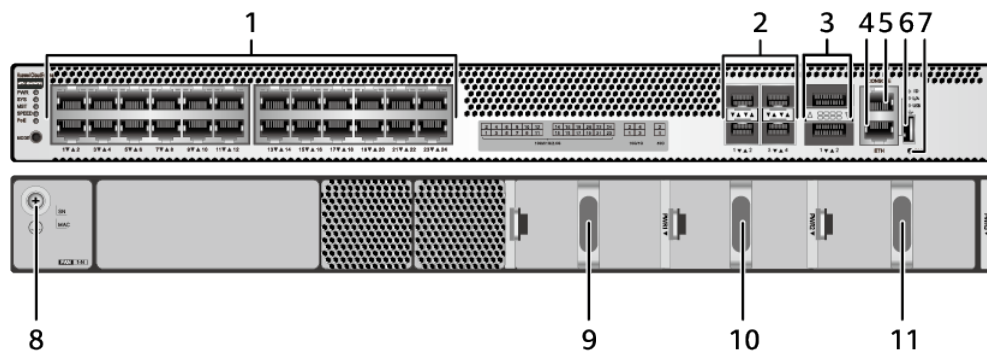
Table 4-1302 Basic information about the S5731-S24UN4X2Q

Item	Details
Description	S5731-S24UN4X2Q (24*100M/1G/2.5G Ethernet ports, 4*10GE SFP+ ports, 2*40GE QSFP ports, PoE++, without power module)
Part Number	02354VCC

Item	Details
Model	S5731-S24UN4X2Q
First supported version	V200R022C00

Components

Figure 4-513 S5731-S24UN4X2Q appearance



1	Twenty-four 100M/1000M/2.5GE BASE-T PoE++ ports (multi-GE ports)	2	Four 10GE SFP+ ports
3	Two 40GE QSFP+ ports	4	One ETH management port
5	One console port	6	One USB port
7	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	8	Ground screw NOTE It is used with a ground cable .
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • PAC600S56-EB • PAC1000S56-EB • PDC1000S56-EB 	10	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • PAC600S56-EB • PAC1000S56-EB • PDC1000S56-EB

1	Power module slot 3	-	-
1	NOTE Applicable power modules: <ul style="list-style-type: none"> • PAC600S56-EB • PAC1000S56-EB • PDC1000S56-EB 		

Ports

Table 4-1303 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)	
	100M/1000M	2.5GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m

NOTE

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

Table 4-1304 Ports on the S5731-S24UN4X2Q

Port	Connector Type	Description	Available Components
100M/1000M/ 2.5GE BASE-T PoE ++ port (multi-GE port)	RJ45	A 100M/1000M/ 2.5GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s. The port supports the PoE function.	If the 2.5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category.

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
40GE SFP+ optical port	QSFP+	<p>A 40GE QSFP+ optical port sends and receives service traffic at 40 Gbit/s.</p> <p>A 40GE QSFP+ optical port can be split into four 10GE ports.</p>	<ul style="list-style-type: none"> ● 40GE QSFP+ optical modules ● 1 m, 3 m, and 5 m QSFP+ high-speed copper cables ● 10 m QSFP+ AOC cable ● 2 m QSFP28 dedicated stack cable
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-514 Indicators on the S5731-S24N4X2Q

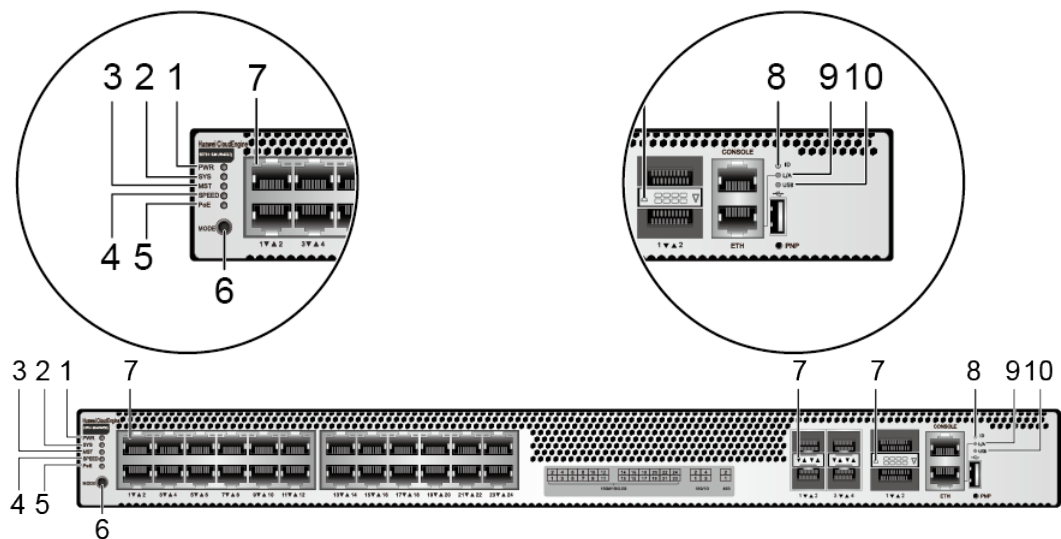


Table 4-1305 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none">If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled.If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
5	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
6	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
7	-	Multi-GE port indicator (one indicator for each port)			Meanings of service port indicators vary in different modes. For details, see Table 4-1306 and Table 4-1307 .
		40GE optical port indicator (one indicator for each port)			

No.	Indicator	Name	Color	Status	Description
		10GE optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
8	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
9	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
10	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1306 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	100M/1000M/2.5GE port: The port is operating at 100 Mbit/s or 1000 Mbit/s. 100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 100 Mbit/s or 1000 Mbit/s.
	Green	Blinking	100M/1000M/2.5GE port: The port is operating at 2.5 Gbit/s. 100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s. 40GE port: The port is operating at 40 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-1307 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply System

The switch is a PoE switch and supports three power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1308 Power supply configurations

Power Module 1	Power Module 2	Power Module 3	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V)	-	-	778 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W AC (110 V)	-	-	688 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 22 ● 802.3bt (60 W per port): 11 ● 802.3bt (90 W per port): 7

Power Module 1	Power Module 2	Power Module 3	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W DC	-	-	778 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 12 • 802.3bt (90 W per port): 8
600 W AC (220 V)	-	-	441 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 14 • 802.3bt (60 W per port): 7 • 802.3bt (90 W per port): 4
600 W AC (110 V)	-	-	156 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 10 • 802.3at (30 W per port): 5 • 802.3bt (60 W per port): 2 • 802.3bt (90 W per port): 1
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	-	1678 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24 • 802.3bt (90 W per port): 18
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	-	1498 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24 • 802.3bt (90 W per port): 16

Power Module 1	Power Module 2	Power Module 3	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	600 W AC (220 V)	–	998 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 16 • 802.3bt (90 W per port): 11
600 W AC (110 V)	600 W AC (110 V)	–	441 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 14 • 802.3bt (60 W per port): 7 • 802.3bt (90 W per port): 4
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	–	1318 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 21 • 802.3bt (90 W per port): 14
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	2268 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24 • 802.3bt (90 W per port): 24
600 W AC (220 V)	600 W AC (220 V)	600 W AC (220 V)	1581 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24 • 802.3bt (90 W per port): 17

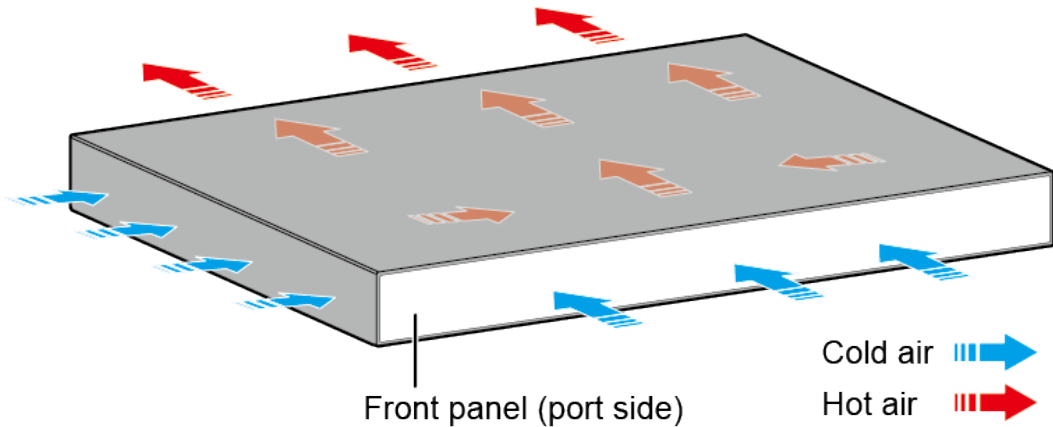
Power Module 1	Power Module 2	Power Module 3	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	2218 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 24 802.3bt (90 W per port): 24
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	600 W AC (220 V)	1858 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 24 802.3bt (90 W per port): 20
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	2268 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 24 802.3bt (90 W per port): 24
600 W AC (110 V)	600 W AC (110 V)	600 W AC (110 V)	726 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 12 802.3bt (90 W per port): 8

 **NOTE**

When a switch has multiple power modules installed, the multiple power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1309 Technical specifications of the S5731-S24UN4X2Q

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 454.0 mm (1.72 in. x 17.4 in. x 17.87 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	6.83 kg (15.06 lb)
Weight with packaging [kg(lb)]	9.81 kg (21.63 lb)
Typical power consumption [W]	126 W
Typical heat dissipation [BTU/hour]	429.93 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 171 W Full PoE load: 2571 W (PoE: 2268 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 583.48 Full PoE load: 8772.60

Item	Specification
Static power consumption [W]	81 W
MTBF [years]	54.08 years
MTTR [hours]	2.22 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Three 600 W AC PoE power modules with 30% load: 50.50 dBA Three 1000 W AC PoE power modules with 30% load: 52.50 dBA Three 1000 W DC PoE power modules with 30% load: 52.50 dBA
Noise at normal temperature (acoustic pressure) [dB(A)]	Three 600 W AC PoE power modules with 30% load: 36.82 dBA Three 1000 W AC PoE power modules with 30% load: 38.82 dBA Three 1000 W DC PoE power modules with 30% load: 38.82 dBA
Number of card slots	0
Number of power slots	3
Number of fans modules	2
Redundant power supply	1+1+1 Pluggable AC and DC power modules can be used together in the same switch.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45 Hz to 66 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode ● Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from the front and left and air exhaust from the rear
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.25.25 S5731-S8UM16UN2Q

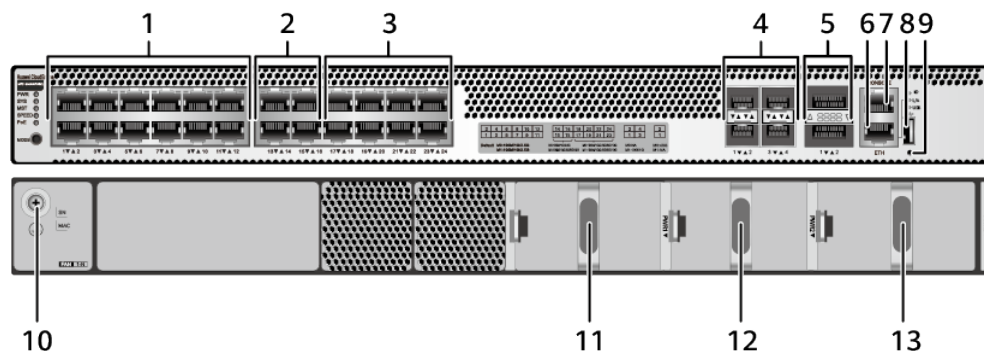
Overview

Table 4-1310 Basic information about the S5731-S8UM16UN2Q

Item	Details
Description	S5731-S8UM16UN2Q (8*100M/1/2.5/5/10G,16*100M/1/2.5G ports, 2*40GE QSFP ports or 12*100M/1/2.5/5/10G,12*100M/1/2.5G ports, 4*10GE SFP+ ports, PoE++, without power module)
Part Number	02354VCD
Model	S5731-S8UM16UN2Q
First supported version	V200R022C00

Components

Figure 4-515 S5731-S8UM16UN2Q appearance



1	Twelve 100M/1000M/2.5GE BASE-T PoE++ ports (multi-GE ports)	2	<p>Four 100M/1000M/2.5GE BASE-T PoE++ ports or four 100M/1000M/2.5GE/5GE/10GE BASE-T PoE++ ports (multi-GE ports)</p> <p>NOTE</p> <p>You can run the set device port-config-mode enable command to change the working mode of multi-GE, SFP+ and QSFP+ ports. By default, the working mode is "8*10G+16*2.5G+2*40G" and can be set to "12*10G+12*2.5G+4*10G".</p> <ul style="list-style-type: none"> • In 8*10G+16*2.5G+2*40G mode, the maximum rate of multi-GE ports numbered from 1 to 16 is 2.5 Gbit/s, and the maximum rate of multi-GE ports numbered from 17 to 24 is 10 Gbit/s. The 10GE SFP+ optical ports cannot be used, and the 40GE QSFP+ optical ports can be used. • In 12*10G+12*2.5G+4*10G mode, the maximum rate of multi-GE ports numbered from 1 to 12 is 2.5 Gbit/s, and the maximum rate of multi-GE ports numbered from 13 to 24 is 10 Gbit/s. The 10GE SFP+ optical ports can be used, but the 40GE QSFP+ optical ports cannot be used.
3	Eight 100M/1000M/2.5GE/5GE/10GE BASE-T PoE++ ports (multi-GE ports)	4	<p>Four 10GE SFP+ ports</p> <p>NOTE</p> <p>You can run the set device port-config-mode enable command to change the working mode of multi-GE, SFP+ and QSFP+ ports. By default, the working mode is "8*10G+16*2.5G+2*40G" and can be set to "12*10G+12*2.5G+4*10G".</p> <ul style="list-style-type: none"> • In 8*10G+16*2.5G+2*40G mode, the maximum rate of multi-GE ports numbered from 1 to 16 is 2.5 Gbit/s, and the maximum rate of multi-GE ports numbered from 17 to 24 is 10 Gbit/s. The 10GE SFP+ optical ports cannot be used, and the 40GE QSFP+ optical ports can be used. • In 12*10G+12*2.5G+4*10G mode, the maximum rate of multi-GE ports numbered from 1 to 12 is 2.5 Gbit/s, and the maximum rate of multi-GE ports numbered from 13 to 24 is 10 Gbit/s. The 10GE SFP+ optical ports can be used, but the 40GE QSFP+ optical ports cannot be used.

5	<p>Two 40GE QSFP+ ports</p> <p>NOTE</p> <p>You can run the set device port-config-mode enable command to change the working mode of multi-GE, SFP+ and QSFP+ ports. By default, the working mode is "8*10G+16*2.5G+2*40G" and can be set to "12*10G+12*2.5G+4*10G".</p> <ul style="list-style-type: none"> • In 8*10G+16*2.5G+2*40G mode, the maximum rate of multi-GE ports numbered from 1 to 16 is 2.5 Gbit/s, and the maximum rate of multi-GE ports numbered from 17 to 24 is 10 Gbit/s. The 10GE SFP+ optical ports cannot be used, and the 40GE QSFP+ optical ports can be used. • In 12*10G+12*2.5G+4*10G mode, the maximum rate of multi-GE ports numbered from 1 to 12 is 2.5 Gbit/s, and the maximum rate of multi-GE ports numbered from 13 to 24 is 10 Gbit/s. The 10GE SFP+ optical ports can be used, but the 40GE QSFP+ optical ports cannot be used. 	6	One ETH management port
7	One console port	8	One USB port
9	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	10	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
11	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • PAC600S56-EB • PAC1000S56-EB • PDC1000S56-EB 	12	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • PAC600S56-EB • PAC1000S56-EB • PDC1000S56-EB

1 3	Power module slot 3 NOTE Applicable power modules: <ul style="list-style-type: none"> • PAC600S56-EB • PAC1000S56-EB • PDC1000S56-EB 	-	-
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Ports

Table 4-1311 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m	<ul style="list-style-type: none"> • 55 m • 100 m (6-a-1 bundle only for the first 30 m) Not recommended due to high risks	Not supported
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m	100 m	Not supported
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m	100 m Not recommended due to high risks	Not supported
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m	100 m	Not supported
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m	100 m Not recommended due to high risks	Not supported

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m	100 m	100 m

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

If a port works at a rate of 5 Gbit/s, you are advised not to use unshielded Ethernet cables due to the following causes:

- 802.3bz requires that the ALSNR value for alien crosstalk between Ethernet cables be greater than 0, but the standards for Cat5e and Cat6 unshielded twisted pairs do not specify the required ALSNR value. Therefore, such cables may not meet the crosstalk requirement in 802.3bz, causing severe problems such as continuous packet loss or port flapping may occur.
- According the cabling specification TIA TSB-5021, using Cat5e and Cat6 cables for 5G poses high risks.
- Currently, no clear onsite testing or evaluation method is available for checking whether ALSNR of cables conforms to 802.3bz.

If a port works at a rate of 5 Gbit/s and a Cat6 shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL Class E (+All) or TIA Cat 6 Channel (+All). If a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If a port works at a rate of 10 Gbit/s and a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If Cat5e and Cat6 unshielded twisted pairs do not meet the 5G requirement, you are advised to replace them with shielded twisted pairs or reduce the rate of ports to 2.5G.

If Cat5E, Cat6, or Cat6A unshielded twisted pairs are used on electrical ports working at 10 Gbit/s, severe problems such as continuous packet loss or port flapping may occur.

Table 4-1312 Ports on the S5731-S8UM16UN2Q

Port	Connector Type	Description	Available Components
100M/1000M/ 2.5GE BASE-T PoE ++ port (multi-GE port)	RJ45	A 100M/1000M/ 2.5GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s. The port supports the PoE function.	If the 2.5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category.
100M/1000M/ 2.5GE/5GE/10GE BASE-T PoE++ port (multi-GE port)	RJ45	A 100M/1000M/ 2.5GE/5GE/10GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s. The port supports the PoE function.	If the 2.5 Gbit/s or 5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. If the 10 Gbit/s speed is required, the port must use an Ethernet cable of Cat6A F/UTP or higher category.

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
40GE SFP+ optical port	QSFP+	<p>A 40GE QSFP+ optical port sends and receives service traffic at 40 Gbit/s.</p> <p>A 40GE QSFP+ optical port can be split into four 10GE ports.</p>	<ul style="list-style-type: none"> ● 40GE QSFP+ optical modules ● 1 m, 3 m, and 5 m QSFP+ high-speed copper cables ● 10 m QSFP+ AOC cable ● 2 m QSFP28 dedicated stack cable
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

The S5731-S8UM16UN2Q has the same types of indicators as the S5731-S24UN4X2Q. For details, see the S5731-S24UN4X2Q.

Power Supply System

The switch is a PoE switch and supports three power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1313 Power supply configurations

Power Module 1	Power Module 2	Power Module 3	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V)	-	-	778 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W AC (110 V)	-	-	688 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 22 ● 802.3bt (60 W per port): 11 ● 802.3bt (90 W per port): 7
1000 W DC	-	-	778 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
600 W AC (220 V)	-	-	441 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 14 ● 802.3bt (60 W per port): 7 ● 802.3bt (90 W per port): 4
600 W AC (110 V)	-	-	156 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 10 ● 802.3at (30 W per port): 5 ● 802.3bt (60 W per port): 2 ● 802.3bt (90 W per port): 1

Power Module 1	Power Module 2	Power Module 3	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	–	1678 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24 • 802.3bt (90 W per port): 18
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	–	1498 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24 • 802.3bt (90 W per port): 16
600 W AC (220 V)	600 W AC (220 V)	–	998 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 16 • 802.3bt (90 W per port): 11
600 W AC (110 V)	600 W AC (110 V)	–	441 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 14 • 802.3bt (60 W per port): 7 • 802.3bt (90 W per port): 4
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	–	1318 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 21 • 802.3bt (90 W per port): 14

Power Module 1	Power Module 2	Power Module 3	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	2268 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 24
600 W AC (220 V)	600 W AC (220 V)	600 W AC (220 V)	1581 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 17
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	2218 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 24
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	600 W AC (220 V)	1858 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 20
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	2268 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 24

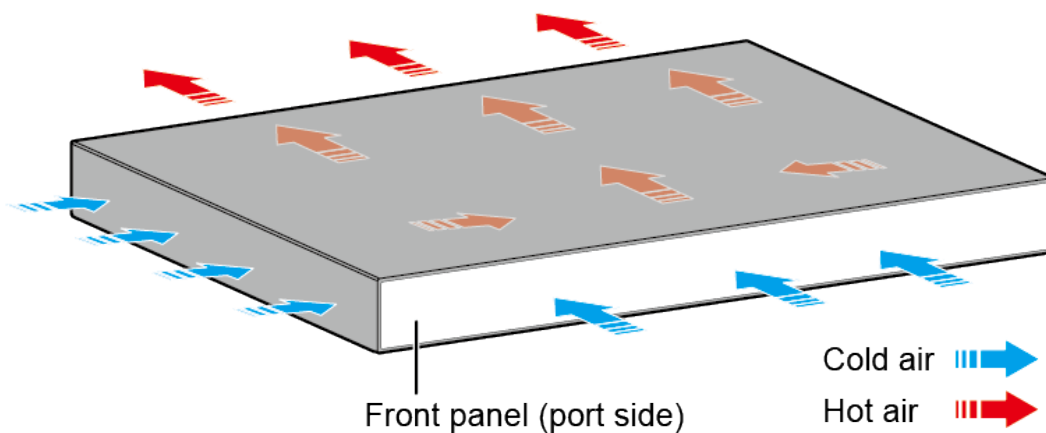
Power Module 1	Power Module 2	Power Module 3	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (110 V)	600 W AC (110 V)	600 W AC (110 V)	726 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 12 • 802.3bt (90 W per port): 8

NOTE

When a switch has multiple power modules installed, the multiple power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1314 Technical specifications of the S5731-S8UM16UN2Q

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 454.0 mm (1.72 in. x 17.4 in. x 17.87 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	6.83 kg (15.06 lb)
Weight with packaging [kg(lb)]	9.81 kg (21.63 lb)
Typical power consumption [W]	126 W
Typical heat dissipation [BTU/hour]	429.93 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 171 W Full PoE load: 2571 W (PoE: 2268 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 583.48 Full PoE load: 8772.60
Static power consumption [W]	81 W
MTBF [years]	54.08 years
MTTR [hours]	2.22 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Three 600 W AC PoE power modules with 30% load: 50.50 dBA Three 1000 W AC PoE power modules with 30% load: 52.50 dBA Three 1000 W DC PoE power modules with 30% load: 52.50 dBA

Item	Specification
Noise at normal temperature (acoustic pressure) [dB(A)]	Three 600 W AC PoE power modules with 30% load: 36.82 dBA Three 1000 W AC PoE power modules with 30% load: 38.82 dBA Three 1000 W DC PoE power modules with 30% load: 38.82 dBA
Number of card slots	0
Number of power slots	3
Number of fans modules	2
Redundant power supply	1+1+1 Pluggable AC and DC power modules can be used together in the same switch.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45 Hz to 66 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode ● Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from the front and left and air exhaust from the rear
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.26 S5731S-S

4.26.1 S5731S-S24T4X-A (02353AHV/02353AHV-001)

Version Mapping

Table 4-1315 lists the mapping between the S5731S-S24T4X-A chassis and software versions.

Table 4-1315 Version mapping

Series	Model	Software Version
S5731S-S	S5731S-S24T4X-A	02353AHV: V200R019C00 and later versions 02353AHV-001: V200R020C10 and later versions

Appearance and Structure

Figure 4-516 S5731S-S24T4X-A (02353AHV) appearance

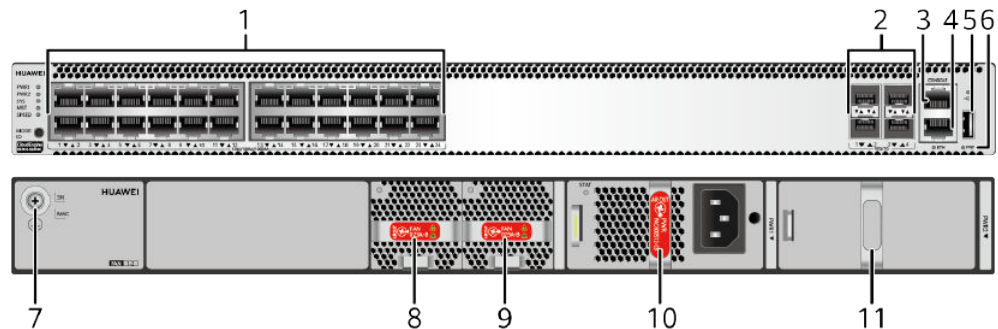
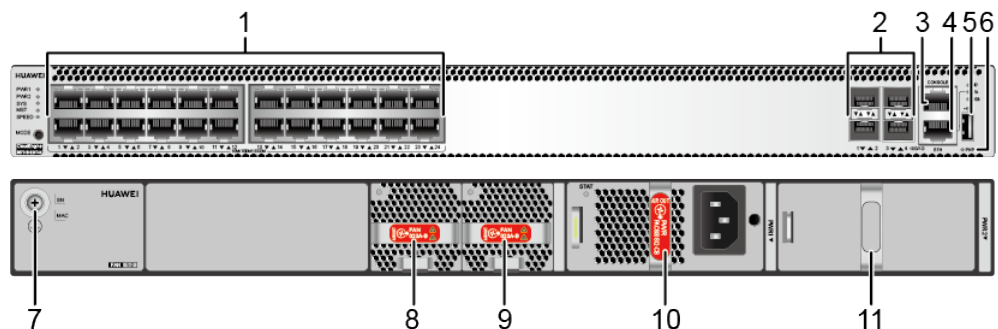


Figure 4-517 S5731S-S24T4X-A (02353AHV-001) appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

9	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	1 0	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
1 1	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1316](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1316 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1317](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1317 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1318](#).

Table 4-1318 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-1319** describes the attributes of an ETH management port.

Table 4-1319 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

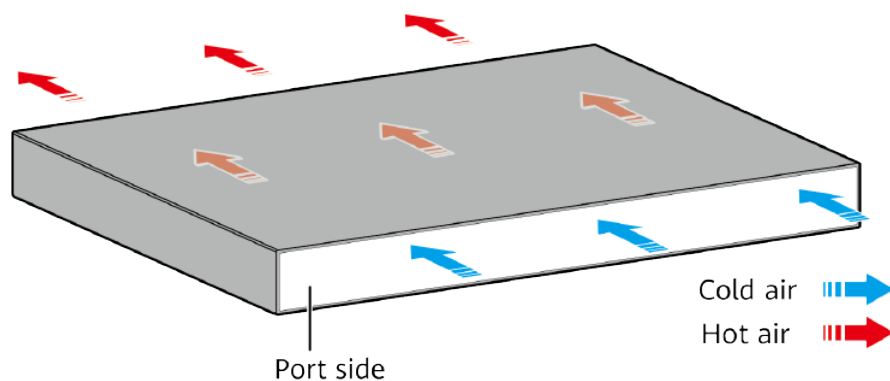
The S5731S-S24T4X-A has similar indicators to those on the S5731S-S48P4X-A except that the S5731S-S24T4X-A does not have a PoE mode indicator. For details, see **Indicator Description**.

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731S-S24T4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1320](#) lists technical specifications of the S5731S-S24T4X-A.

Table 4-1320 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> ● Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode ● Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.35 kg (20.61 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	114 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	88 W

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353AHV 02353AHV-001

4.26.2 S5731S-S24T4X-A (98011852)

Overview

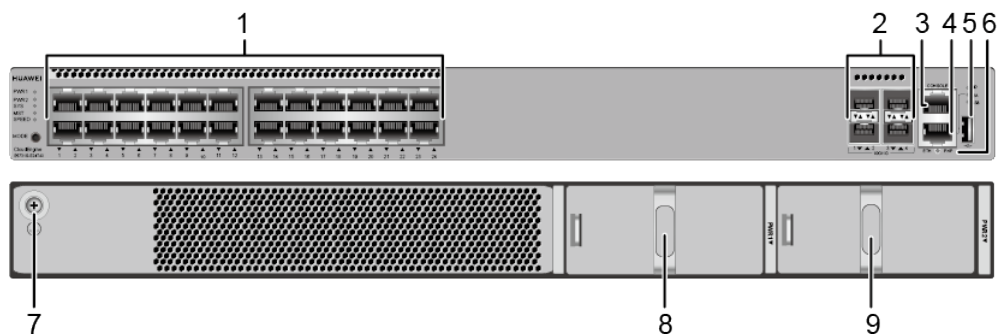
Table 4-1321 Basic information about the S5731S-S24T4X-A

Item	Details
Description	S5731S-S24T4X Bundle (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, 1*AC power)
Part Number	98011852
Model	S5731S-S24T4X-A
First supported version	V200R021C10SPC600

Item	Details
Supported Patch Version	If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.

Components

Figure 4-518 S5731S-S24T4X-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)
9	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	-	-

Ports

Table 4-1322 Ports on the S5731S-S24T4X-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

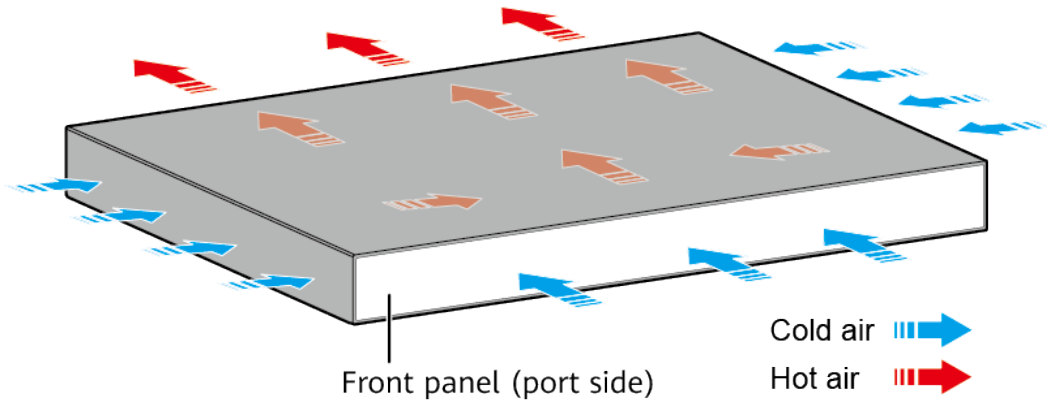
The S5731S-S24T4X-A has similar indicators to those on the S5731S-S48P4X-A except that the S5731S-S24T4X-A does not have a PoE mode indicator. For details, see the S5731S-S48P4X-A.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1323 Technical specifications of the S5731S-S24T4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.60 kg (12.35 lb)
Weight with packaging [kg(lb)]	8.13 kg (17.92 lb)
Typical power consumption [W]	61 W
Typical heat dissipation [BTU/hour]	208.14 BTU/hour
Maximum power consumption [W]	87 W
Maximum heat dissipation [BTU/hour]	296.85 BTU/hour
Static power consumption [W]	44 W
MTBF [years]	86.81 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.62 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.94 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode ● Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air flows in from the left, right, and front, and flows out from the rear.
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.26.3 S5731S-S24T4X-A1

Overview

Table 4-1324 Basic information about the S5731S-S24T4X-A1

Item	Details
Description	S5731S-S24T4X-A1 (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011859
Model	S5731S-S24T4X-A1
First supported version	V200R021C10SPC600
Supported Patch Version	If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.

Components

Figure 4-519 S5731S-S24T4X-A1 appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1325 Ports on the S5731S-S24T4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

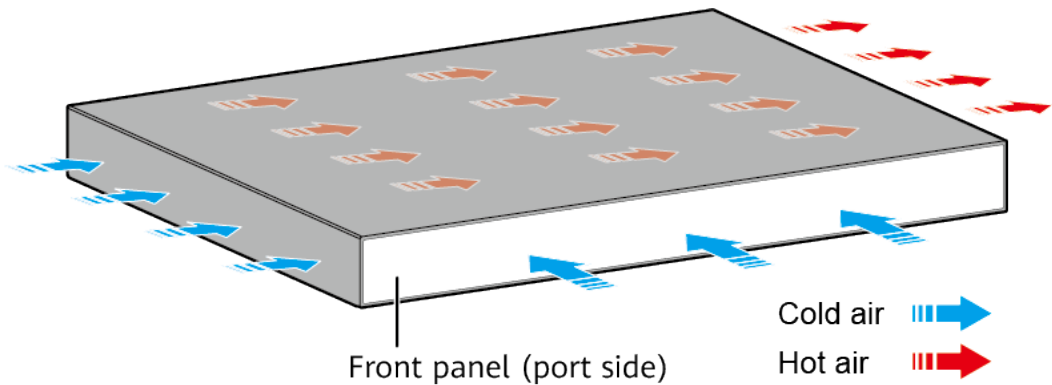
The S5731S-S24T4X-A1 has the same types of indicators as the S5731S-S48T4X-A1. For details, see the S5731S-S48T4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1326 Technical specifications of the S5731S-S24T4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 355.0 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.04 kg (6.7 lb)
Weight with packaging [kg(lb)]	4.40 kg (9.7 lb)
Typical power consumption [W]	63 W
Typical heat dissipation [BTU/hour]	214.96 BTU/hour
Maximum power consumption [W]	80 W
Maximum heat dissipation [BTU/hour]	272.97 BTU/hour
Static power consumption [W]	48 W
MTBF [years]	47.34 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	44.90 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.21 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.

Item	Specification
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.26.4 S5731S-S24P4X-A (02353AHY/02353AHY-001/02353AHY-003)

Version Mapping

[Table 4-1327](#) lists the mapping between the S5731S-S24P4X-A chassis and software versions.

Table 4-1327 Version mapping

Series	Model	Software Version
S5731S-S	S5731S-S24P4X-A	02353AHY: V200R019C00 and later versions 02353AHY-001: V200R020C10 and later versions 02353AHY-003: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.)

Appearance and Structure

Figure 4-520 S5731S-S24P4X-A (02353AHY) appearance

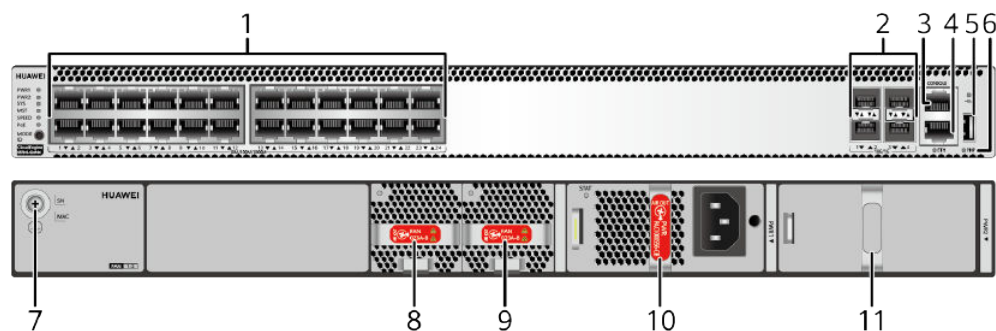
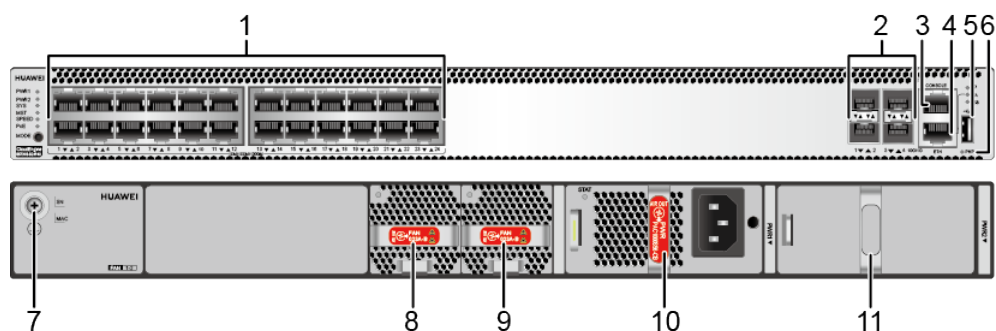


Figure 4-521 S5731S-S24P4X-A (02353AHY-001/02353AHY-003) appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

9	Fan module slot 2 NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))	1 0	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions)
1 1	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1328](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1328 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1329](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1329 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1330](#).

Table 4-1330 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1331](#) describes the attributes of an ETH management port.

Table 4-1331 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5731S-S24P4X-A has the same types of indicators as the S5731S-S48P4X-A. For details, see [Indicator Description](#).

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1332 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	760 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W AC (110 V)	–	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 22
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	Versions earlier than V200R021C10: 1330 W V200R021C10 and later versions: 1520 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
600 W AC (220 V)	–	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
600 W AC (110 V)	–	95 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 6 802.3at (30 W per port): 3

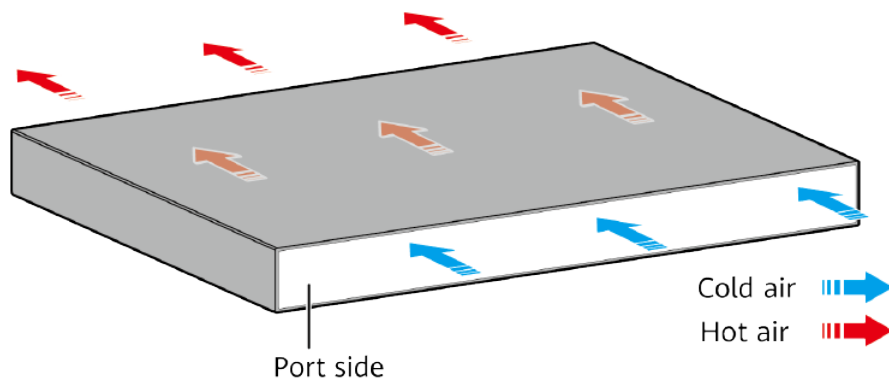
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	600 W AC (220 V)	950 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
600 W AC (110 V)	600 W AC (110 V)	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731S-S24P4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



Technical Specifications

[Table 4-1333](#) lists technical specifications of the S5731S-S24P4X-A.

Table 4-1333 Technical specifications

Item	Description
Memory (RAM)	2 GB

Item	Description
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.21 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.7 kg (21.38 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 121 W 100% PoE loads: 977 W (PoE: 720 W)

Item	Description
Typical power consumption (30% of traffic load, tested according to ATIS standard)	95 W
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	02353AHY 02353AHY-001 02353AHY-003

4.26.5 S5731S-S48T4X-A (02353AJC/02353AJC-003)

Version Mapping

[Table 4-1334](#) lists the mapping between the S5731S-S48T4X-A chassis and software versions.

Table 4-1334 Version mapping

Series	Model	Software Version
S5731S-S	S5731S-S48T4X-A	02353AJC: V200R019C00 and later versions 02353AJC-003: V200R020C10 and later versions

Appearance and Structure

Figure 4-522 S5731S-S48T4X-A (02353AJC) appearance

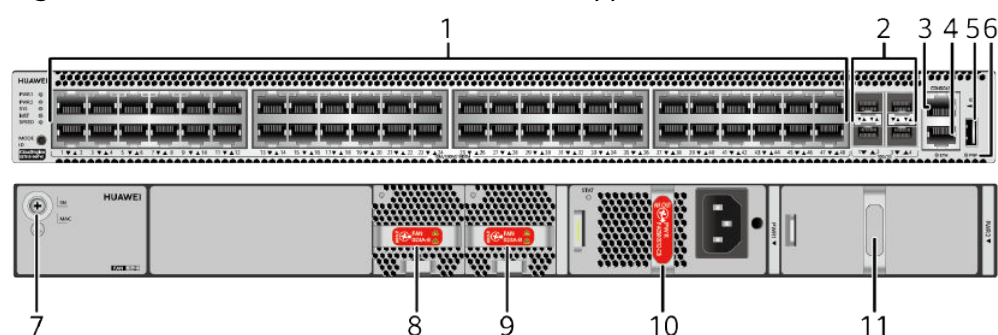
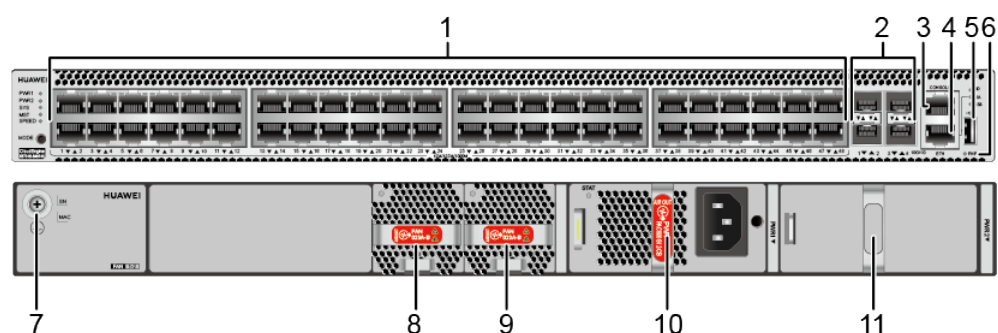


Figure 4-523 S5731S-S48T4X-A (02353AJC-003) appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

9	Fan module slot 2 NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))	1 0	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
1 1	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1335](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1335 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1336](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1336 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1337](#).

Table 4-1337 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-1338** describes the attributes of an ETH management port.

Table 4-1338 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

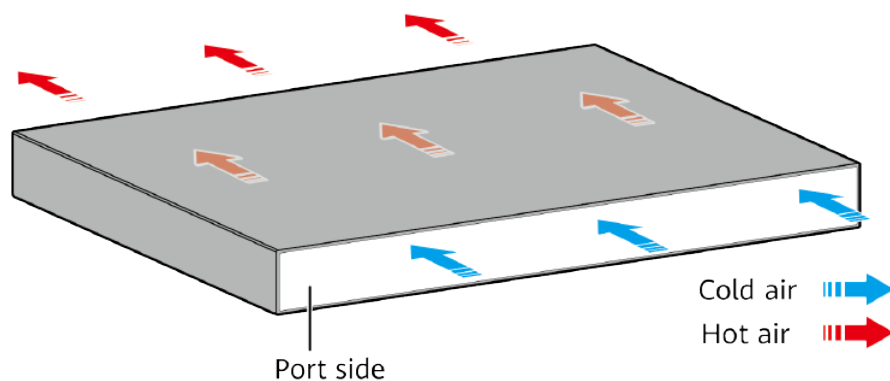
The S5731S-S48T4X-A has similar indicators to those on the S5731S-S48P4X-A except that the S5731S-S48T4X-A does not have a PoE mode indicator. For details, see **Indicator Description**.

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731S-S48T4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1339](#) lists technical specifications of the S5731S-S48T4X-A.

Table 4-1339 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> ● Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode ● Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.5 kg (20.94 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	101 W

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353AJC 02353AJC-003

4.26.6 S5731S-S48T4X-A (98011848)

Overview

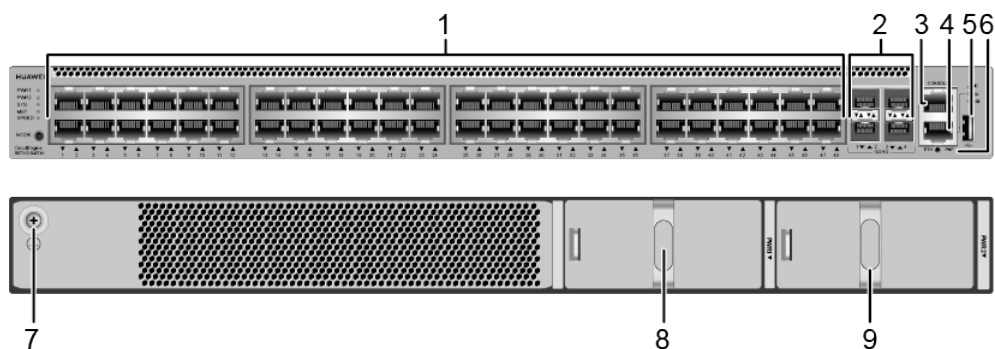
Table 4-1340 Basic information about the S5731S-S48T4X-A

Item	Details
Description	S5731S-S48T4X Bundle(48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, 1*AC power)
Part Number	98011848
Model	S5731S-S48T4X-A
First supported version	V200R021C10SPC600

Item	Details
Supported Patch Version	If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.

Components

Figure 4-524 S5731S-S48T4X-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)
9	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	-	-

Ports

Table 4-1341 Ports on the S5731S-S48T4X-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

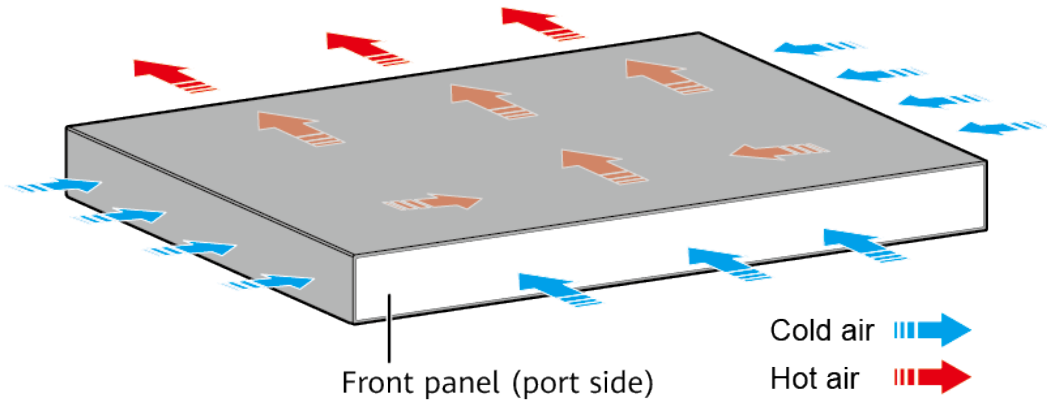
The S5731S-S48T4X-A has similar indicators to those on the S5731S-S48P4X-A except that the S5731S-S48T4X-A does not have a PoE mode indicator. For details, see the S5731S-S48P4X-A.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1342 Technical specifications of the S5731S-S48T4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.77 kg (12.72 lb)
Weight with packaging [kg(lb)]	8.30 kg (18.3 lb)
Typical power consumption [W]	78 W
Typical heat dissipation [BTU/hour]	266.14 BTU/hour
Maximum power consumption [W]	111 W
Maximum heat dissipation [BTU/hour]	378.74 BTU/hour
Static power consumption [W]	50 W
MTBF [years]	73.81 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.62 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.94 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode ● Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air flows in from the left, right, and front, and flows out from the rear.
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.26.7 S5731S-S48T4X-A1

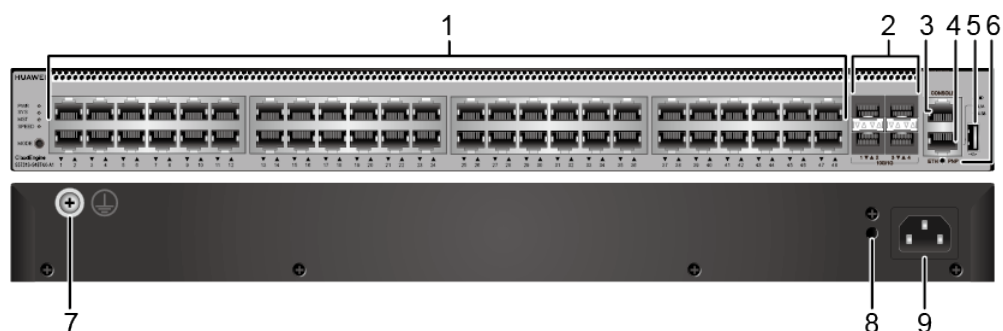
Overview

Table 4-1343 Basic information about the S5731S-S48T4X-A1

Item	Details
Description	S5731S-S48T4X-A1 (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011855
Model	S5731S-S48T4X-A1
First supported version	V200R021C10SPC600
Supported Patch Version	If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.

Components

Figure 4-525 S5731S-S48T4X-A1 appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1344 Ports on the S5731S-S48T4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-526 Indicators on the S5731S-S48T4X-A1

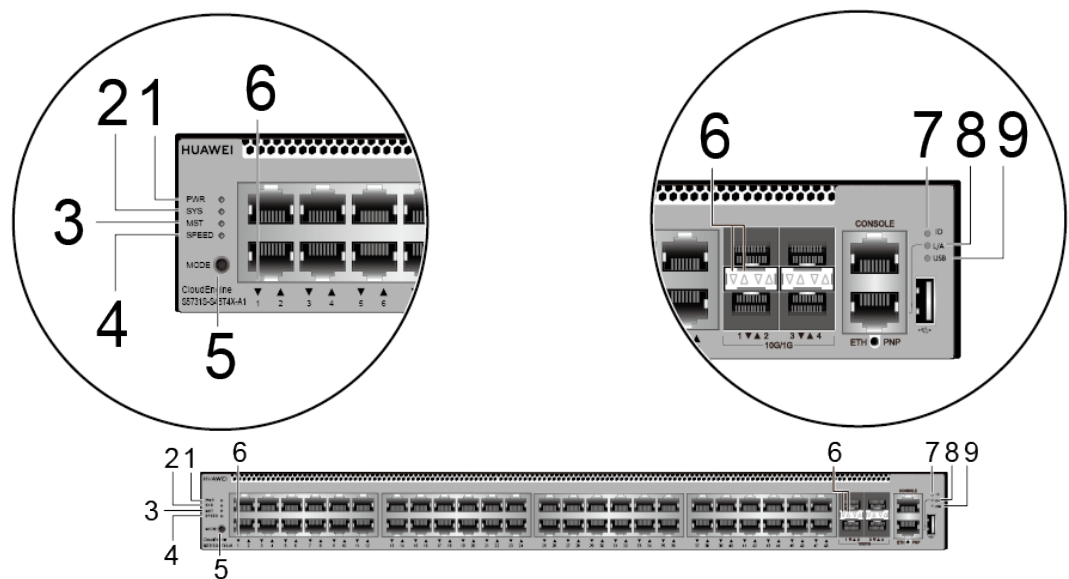


Table 4-1345 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none">If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled.If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED indicator is off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
6	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see Table 4-1346 and Table 4-1347 .
		Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
7	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
8	L/A	ETH port indicator	-	Off	The ETH port is not connected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
9	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1346 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s.

Table 4-1347 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

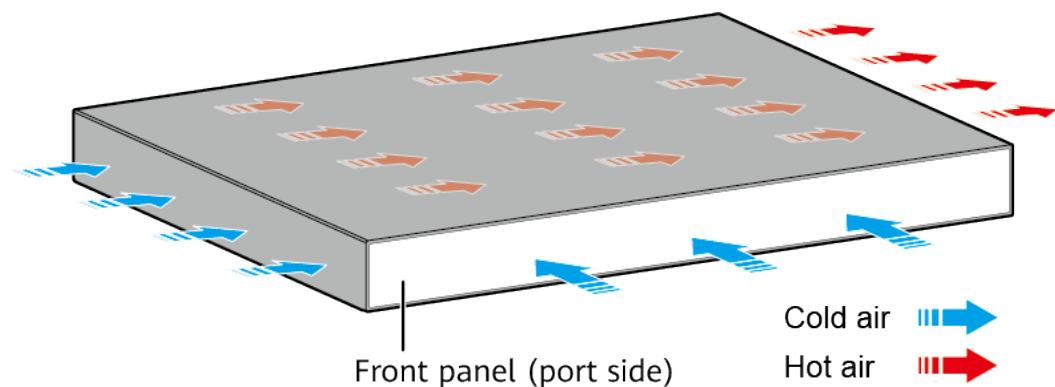
Display Mode	Color	Status	Description
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s. 1000M port: The port is operating at 1000 Mbit/s.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1348 Technical specifications of the S5731S-S48T4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 355.0 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.21 kg (7.08 lb)
Weight with packaging [kg(lb)]	4.57 kg (10.08 lb)
Typical power consumption [W]	76 W
Typical heat dissipation [BTU/hour]	259.32 BTU/hour
Maximum power consumption [W]	102 W
Maximum heat dissipation [BTU/hour]	348.03 BTU/hour
Static power consumption [W]	48 W
MTBF [years]	43.17 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	44.90 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.21 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when 10GE SFP+ optical modules with 40 km or longer transmission distances are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	±6 kV in differential mode, ±6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20

Item	Specification
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.26.8 S5731S-S48P4X-A (02353AJJ/ 02353AJJ-001/02353AJJ-003)

Version Mapping

Table 4-1349 lists the mapping between the S5731S-S48P4X-A chassis and software versions.

Table 4-1349 Version mapping

Series	Model	Software Version
S5731S-S	S5731S-S48P4X-A	02353AJJ: V200R019C00 and later versions 02353AJJ-001: V200R020C10 and later versions 02353AJJ-003: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch.)

Appearance and Structure

Figure 4-527 S5731S-S48P4X-A (02353AJJ) appearance

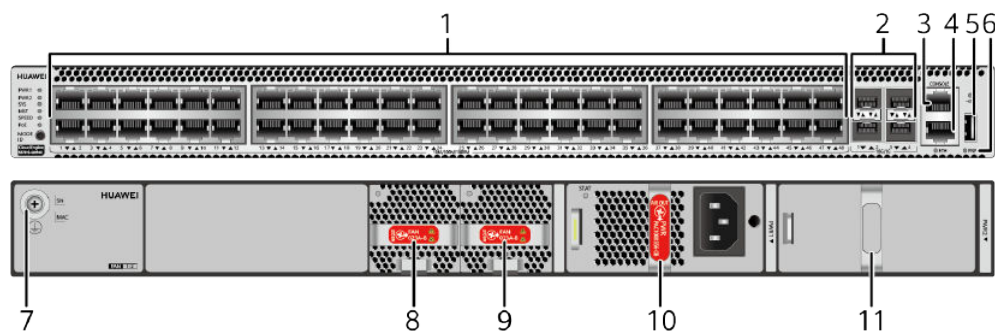
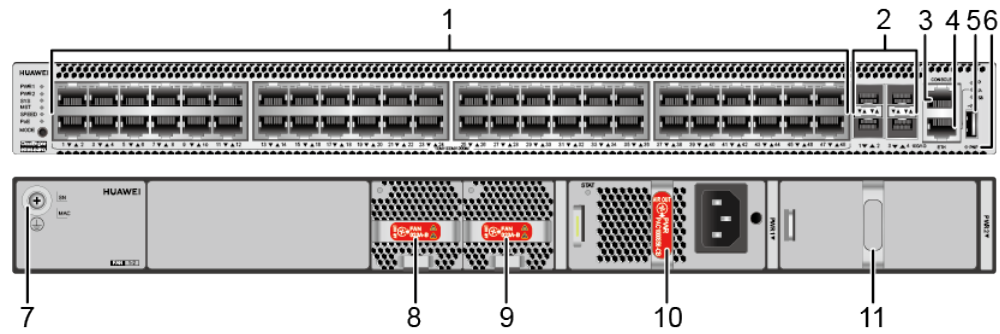


Figure 4-528 S5731S-S48P4X-A (02353AJJ-001/02353AJJ-003) appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
9	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	10	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions)
11	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1350](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1350 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1351](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1351 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1352](#).

Table 4-1352 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1353](#) describes the attributes of an ETH management port.

Table 4-1353 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

 NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-529 Indicators on the S5731S-S48P4X-A (02353AJJ)

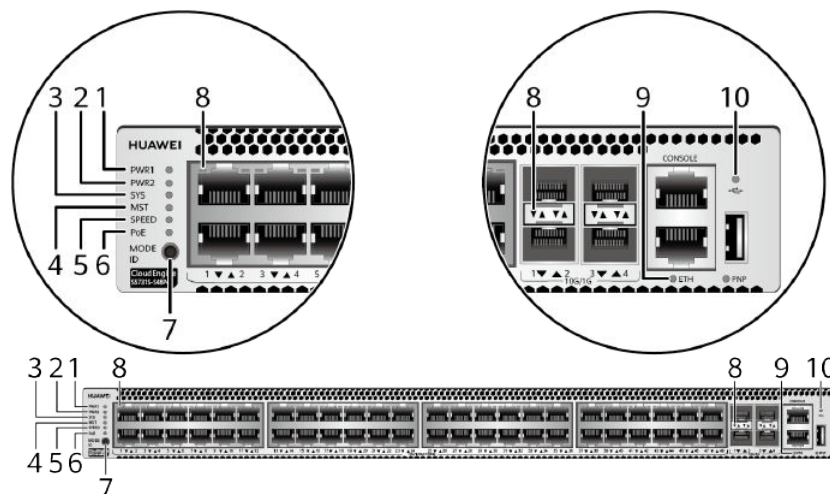


Figure 4-530 Indicators on the S5731S-S48P4X-A (02353AJJ-001/02353AJJ-003)

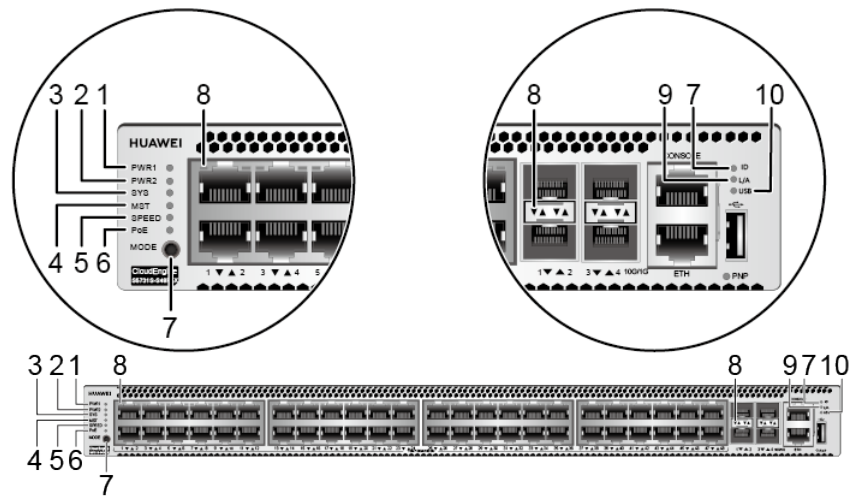


Table 4-1354 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	<p>The switch has two power modules installed. Any of the following situations occurs in power module slot 2:</p> <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> • If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. • If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none">If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled.If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>
	ID	ID indicator NOTE The mode switch button on the 02353AJ has an ID indicator.	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.

No.	Indicator	Name	Color	Status	Description
8	-	Electrical service port indicator (one indicator for each port)	The indicator in the upper left corner of a port indicates the indicator of a port at the top, and the indicator in the upper right corner indicates the indicator of a port at the bottom.		Meanings of service port indicators vary in different modes. For details, see Table 4-1355 and Table 4-1356 .
		Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
9	ETH	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1355 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	Green	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
		Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
		Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-1356 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s. 1000M port: The port is operating at 1000 Mbit/s.

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1357 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	-	760 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W AC (110 V)	-	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 43 802.3at (30 W per port): 22
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	Versions earlier than V200R021C10: 1330 W V200R021C10 and later versions: 1520 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48

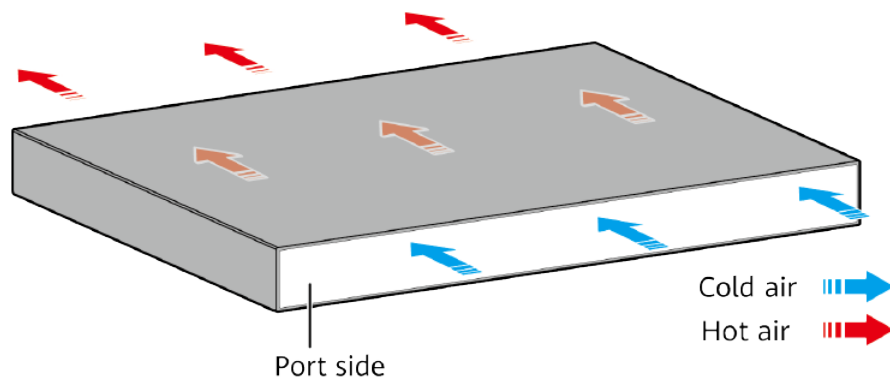
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	-	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
600 W AC (110 V)	-	95 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 6 802.3at (30 W per port): 3
600 W AC (220 V)	600 W AC (220 V)	950 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 31
600 W AC (110 V)	600 W AC (110 V)	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 44

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731S-S48P4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1358](#) lists technical specifications of the S5731S-S48P4X-A.

Table 4-1358 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	54.96 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.9 kg (21.83 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DCDC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DCDC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 132 W100% PoE loads: 1750 W (PoE: 1440 W)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	108 W
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">EMC certificationSafety certificationManufacturing certification

Item	Description
Part number	02353AJJ 02353AJJ-001 02353AJJ-003

4.26.9 S5731S-S32ST4X-A (98011814)

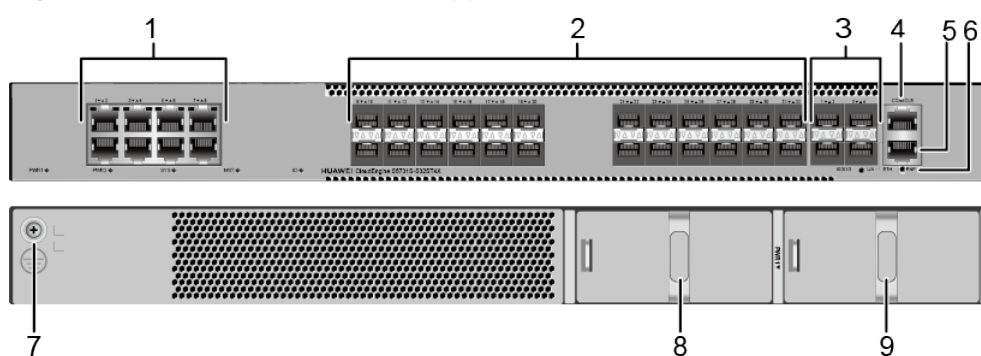
Overview

Table 4-1359 Basic information about the S5731S-S32ST4X-A

Item	Details
Description	S5731S-S32ST4X Bundle(8*10/100/1000BASE-T ports, 24*GE SFP ports, 4*10GE SFP+ ports, with AC power supply)
Part Number	98011814
Model	S5731S-S32ST4X-A
First supported version	V200R021C01

Components

Figure 4-531 S5731S-S32ST4X-A appearance



1	Eight 10/100/1000BASE-T ports	2	Twenty-four 100/1000BASE-X ports NOTE In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.
3	Four 10GE SFP+ ports	4	One console port
5	One ETH management port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	-	-

Ports

Table 4-1360 Ports on the S5731S-S32ST4X-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-532 Indicators on the S5731S-S32ST4X-A

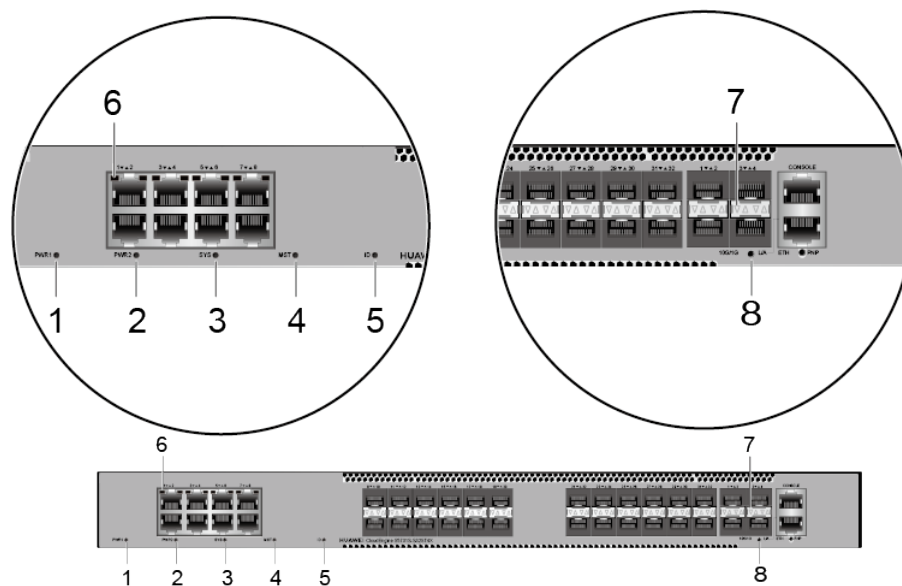


Table 4-1361 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Blinking	The switch is the master switch in a stack or a standalone switch.
5	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
6	-	Service port indicator (electrical port) The indicator in the upper left corner of a port indicates the indicator of a port at the top, and the indicator in the upper right	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.

No.	Indicator	Name	Color	Status	Description
		corner indicates the indicator of a port at the bottom.		Blinking	The port is sending or receiving data.
7	-	Service port indicator (optical port) Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead	Green	Off	The port is not connected or has been shut down.
				Steady on	A link has been established on the port.
			Yellow	Off	The port is not sending or receiving data.

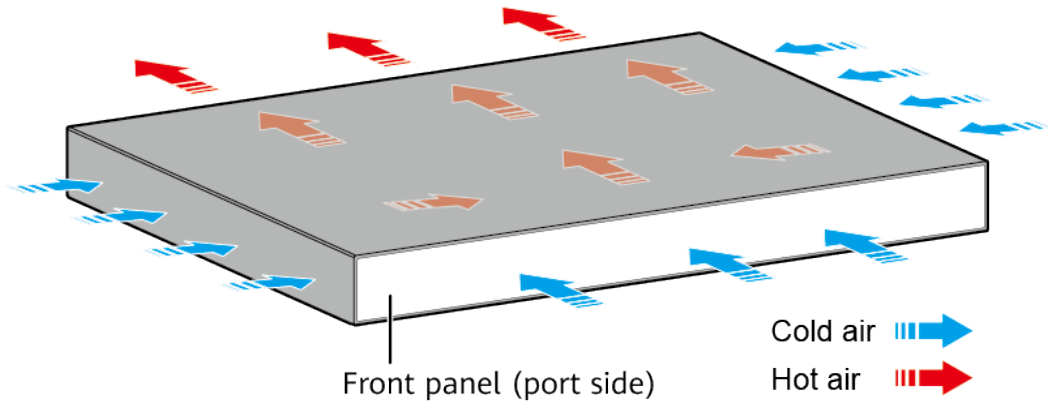
No.	Indicator	Name	Color	Status	Description
		indicates a port at the top. NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.		Blinking	The port is sending or receiving data.
8	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The Eth port is sending or receiving data.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1362 Technical specifications of the S5731S-S32ST4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.40 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.68 kg (12.52 lb)
Weight with packaging [kg(lb)]	8.21 kg (18.1 lb)
Typical power consumption [W]	73.56 W
Typical heat dissipation [BTU/hour]	250.99 BTU/hour
Maximum power consumption [W]	104.82 W (150 W AC or 180 W DC) 119.23 W (600 W AC)

Item	Specification
Maximum heat dissipation [BTU/hour]	357.66 (150 W AC or 180 W DC) 406.82 (600 W AC)
Static power consumption [W]	44.5 W
MTBF [years]	71.54 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.79 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	3
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz High-voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications depend on the pluggable power modules in use. For details, see the related power module specifications.
Memory	2 GB
Flash memory	The physical space is 1 GB. You can run the display version command to view the actual available space.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	<ul style="list-style-type: none"> Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.26.10 S5731S-S32ST4X-A (98011814-001)

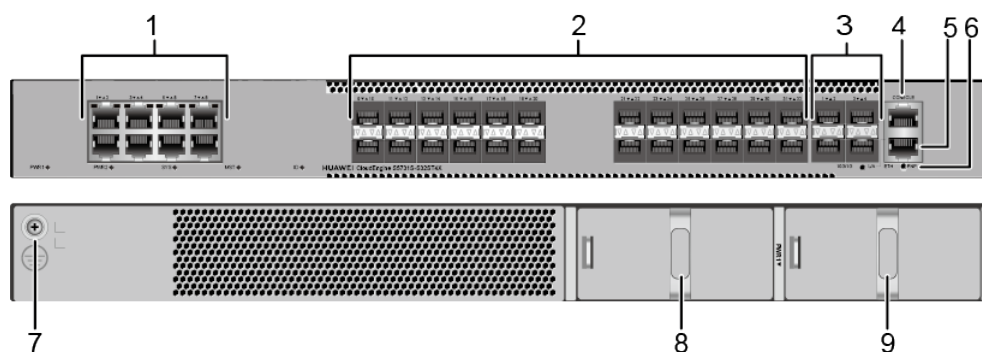
Overview

Table 4-1363 Basic information about the S5731S-S32ST4X-A

Item	Details
Description	S5731S-S32ST4X Bundle(8*10/100/1000BASE-T ports, 24*GE SFP ports, 4*10GE SFP+ ports, with AC power supply)
Part Number	98011814-001
Model	S5731S-S32ST4X-A
First supported version	V200R021C10SPC600

Components

Figure 4-533 S5731S-S32ST4X-A appearance



1	Eight 10/100/1000BASE-T ports	2	Twenty-four 100/1000BASE-X ports NOTE In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.
3	Four 10GE SFP+ ports	4	One console port

5	One ETH management port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)
9	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	-	-

Ports

Table 4-1364 Ports on the S5731S-S32ST4X-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-534 Indicators on the S5731S-S32ST4X-A

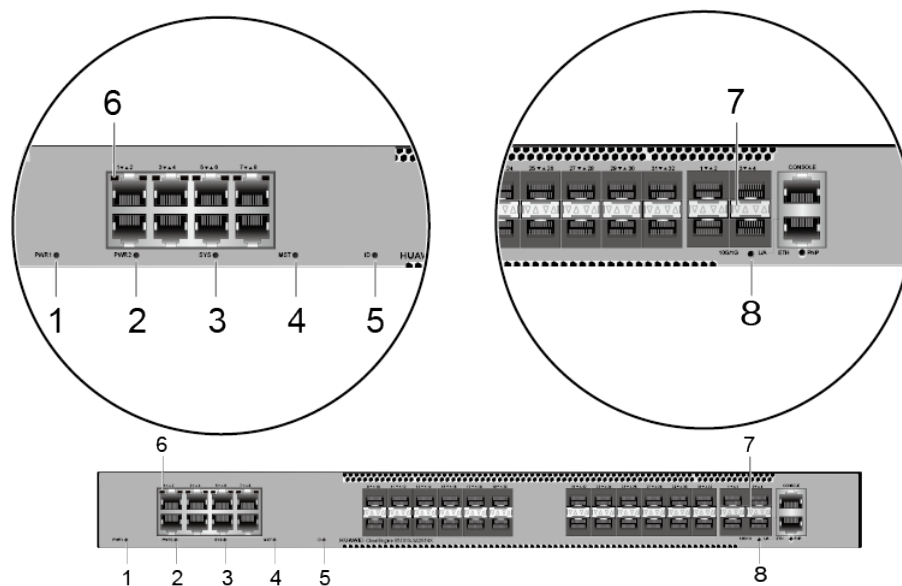


Table 4-1365 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Blinking	The switch is the master switch in a stack or a standalone switch.
5	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
6	-	Service port indicator (electrical port) The indicator in the upper left corner of a port indicates the indicator of a port at the top, and the indicator in the upper right	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.

No.	Indicator	Name	Color	Status	Description
		corner indicates the indicator of a port at the bottom.		Blinking	The port is sending or receiving data.
7	-	Service port indicator (optical port) Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead	Green	Off	The port is not connected or has been shut down.
				Steady on	A link has been established on the port.
			Yellow	Off	The port is not sending or receiving data.

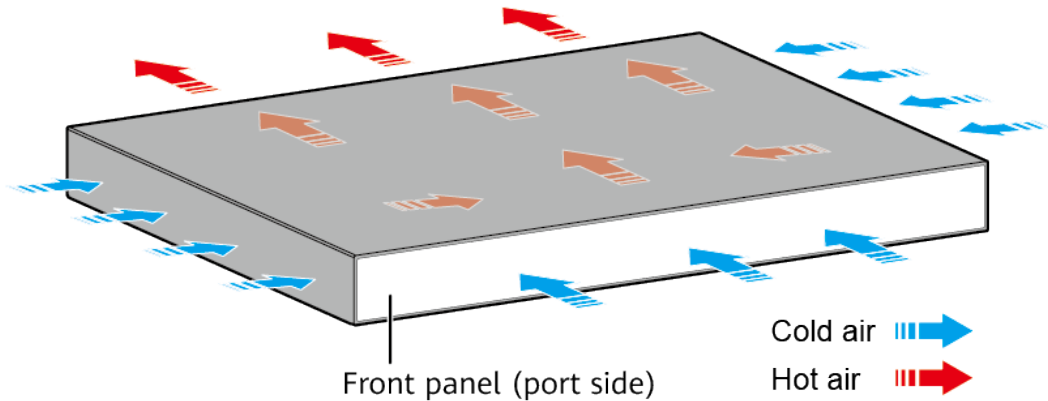
No.	Indicator	Name	Color	Status	Description
		indicates a port at the top. NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.		Blinking	The port is sending or receiving data.
8	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The Eth port is sending or receiving data.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1366 Technical specifications of the S5731S-S32ST4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.68 kg (12.52 lb)
Weight with packaging [kg(lb)]	8.21 kg (18.1 lb)
Typical power consumption [W]	73.56 W
Typical heat dissipation [BTU/hour]	250.99 BTU/hour
Maximum power consumption [W]	104.82 W (150 W AC or 180 W DC) 119.23 W (600 W AC)

Item	Specification
Maximum heat dissipation [BTU/hour]	357.66 (150 W AC or 180 W DC) 406.82 (600 W AC)
Static power consumption [W]	44.5 W
MTBF [years]	71.54 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.79 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	3
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC; 45–65 Hz High-voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	<ul style="list-style-type: none"> Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.26.11 S5731S-S32ST4X-A1 (98011809)

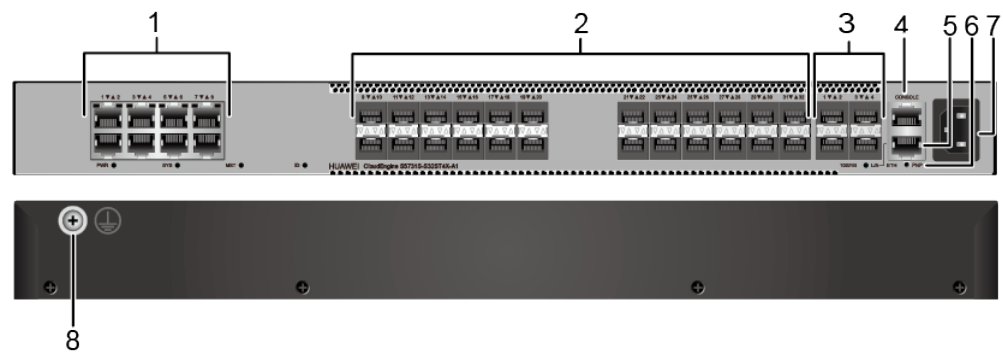
Overview

Table 4-1367 Basic information about the S5731S-S32ST4X-A1

Item	Details
Description	S5731S-S32ST4X-A1(8*10/100/1000BASE-T ports, 24*GE SFP ports, 4*10GE SFP+ ports, AC power, front access)
Part Number	98011809
Model	S5731S-S32ST4X-A1
First supported version	V200R021C01

Components

Figure 4-535 S5731S-S32ST4X-A1 appearance



1	Eight 10/100/1000BASE-T ports	2	Twenty-four 100/1000BASE-X ports NOTE In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.
3	Four 10GE SFP+ ports	4	One console port

5	One ETH management port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	AC socket NOTE It is used with an AC power cable .	8	Ground screw NOTE It is used with a ground cable .

Ports

Table 4-1368 Ports on the S5731S-S32ST4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-536 Indicators on the S5731S-S32ST4X-A1

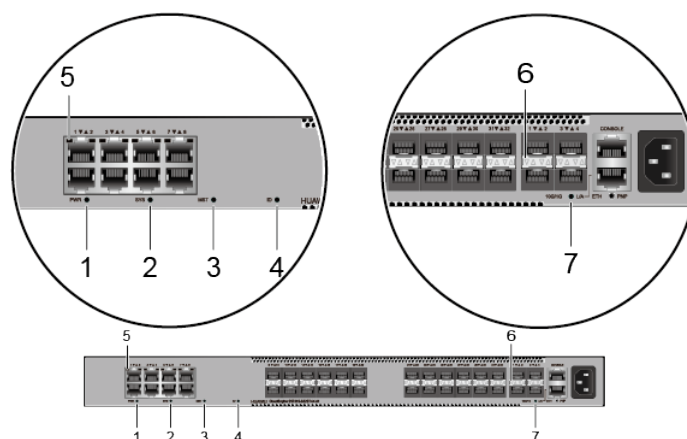


Table 4-1369 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Blinking	The switch is the master switch in a stack or a standalone switch.
4	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
5	-	Service port indicator (electrical port) The indicator in the upper left corner of a port	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.

No.	Indicator	Name	Color	Status	Description
		indicates the indicator of a port at the top, and the indicator in the upper right corner indicates the indicator of a port at the bottom.		Blinking	The port is sending or receiving data.
6	-	Service port indicator (optical port) Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports.	Green	Off	The port is not connected or has been shut down.
				Steady on	A link has been established on the port.
			Yellow	Off	The port is not sending or receiving data.

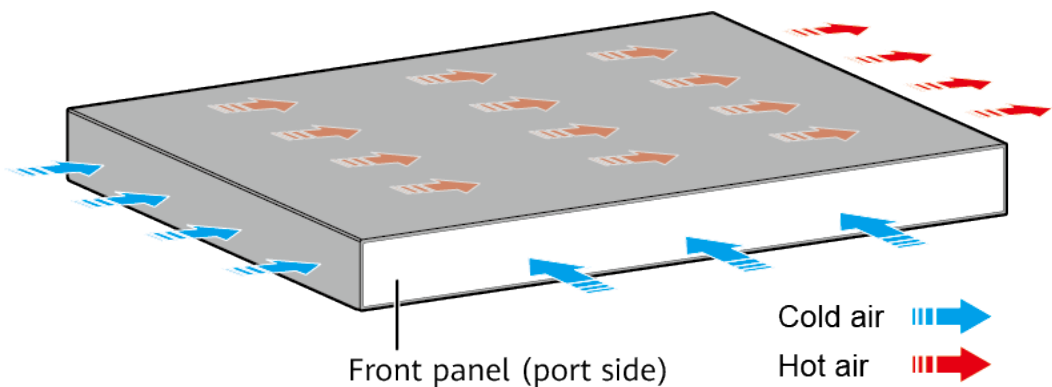
No.	Indicator	Name	Color	Status	Description
		A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top. NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.		Blinking	The port is sending or receiving data.
7	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The Eth port is sending or receiving data.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1370 Technical specifications of the S5731S-S32ST4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.40 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.40 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 355 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.13 kg (6.9 lb)
Weight with packaging [kg(lb)]	4.49 kg (9.9 lb)

Item	Specification
Typical power consumption [W]	66.85 W
Typical heat dissipation [BTU/hour]	228.10 BTU/hour
Maximum power consumption [W]	93.92 W
Maximum heat dissipation [BTU/hour]	320.46 BTU/hour
Static power consumption [W]	41.71 W
MTBF [years]	32.56 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	41.42 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.74 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	- AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	- AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB

Item	Specification
Flash memory	The physical space is 1 GB. You can run the display version command to view the actual available space.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode; ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.26.12 S5731S-S32ST4X-A1 (98011809-001)

Overview

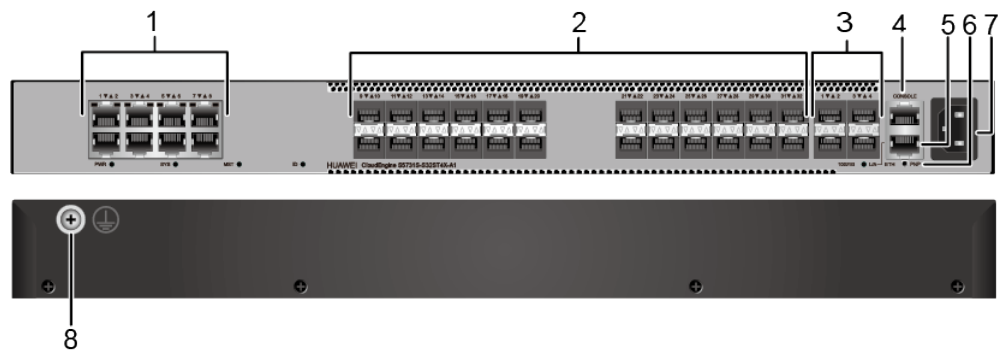
Table 4-1371 Basic information about the S5731S-S32ST4X-A1

Item	Details
Description	S5731S-S32ST4X-A1(8*10/100/1000BASE-T ports, 24*GE SFP ports, 4*10GE SFP+ ports, AC power, front access)
Part Number	98011809-001

Item	Details
Model	S5731S-S32ST4X-A1
First supported version	V200R021C10SPC600

Components

Figure 4-537 S5731S-S32ST4X-A1 appearance



1	Eight 10/100/1000BASE-T ports	2	Twenty-four 100/1000BASE-X ports NOTE In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.
3	Four 10GE SFP+ ports	4	One console port
5	One ETH management port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	AC socket NOTE It is used with an AC power cable .	8	Ground screw NOTE It is used with a ground cable .

Ports

Table 4-1372 Ports on the S5731S-S32ST4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s. In V200R023C00 and later versions, 100/1000BASE-X ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-538 Indicators on the S5731S-S32ST4X-A1

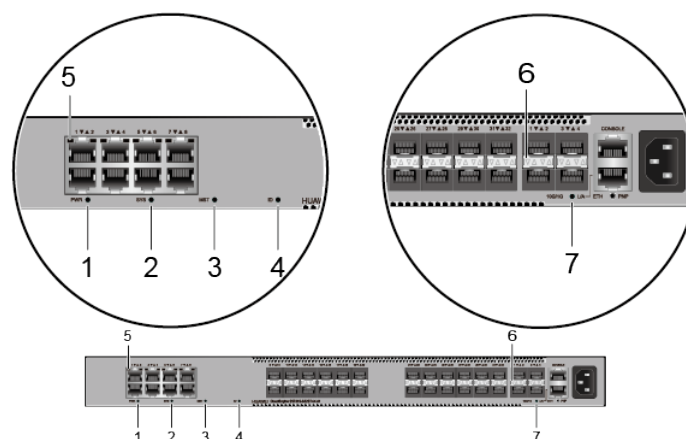


Table 4-1373 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Blinking	The switch is the master switch in a stack or a standalone switch.
4	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
5	-	Service port indicator (electrical port) The indicator in the upper left corner of a port	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.

No.	Indicator	Name	Color	Status	Description
		indicates the indicator of a port at the top, and the indicator in the upper right corner indicates the indicator of a port at the bottom.		Blinking	The port is sending or receiving data.
6	-	Service port indicator (optical port) Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports.	Green	Off	The port is not connected or has been shut down.
				Steady on	A link has been established on the port.
			Yellow	Off	The port is not sending or receiving data.

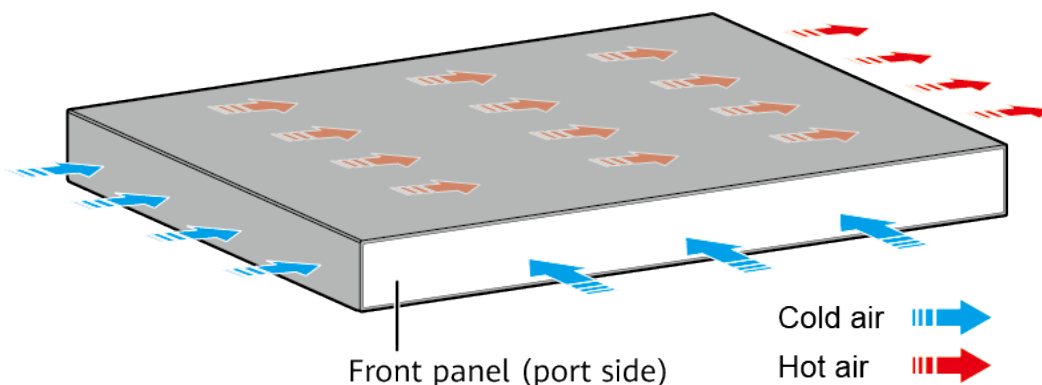
No.	Indicator	Name	Color	Status	Description
		A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top. NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.		Blinking	The port is sending or receiving data.
7	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The Eth port is sending or receiving data.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1374 Technical specifications of the S5731S-S32ST4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 355 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.13 kg (6.9 lb)
Weight with packaging [kg(lb)]	4.49 kg (9.9 lb)

Item	Specification
Typical power consumption [W]	66.85 W
Typical heat dissipation [BTU/hour]	228.10 BTU/hour
Maximum power consumption [W]	93.92 W
Maximum heat dissipation [BTU/hour]	320.46 BTU/hour
Static power consumption [W]	41.71 W
MTBF [years]	32.56 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	41.42 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.74 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	- AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	- AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB

Item	Specification
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	Differential mode: ± 6 kV; common mode: ± 6 kV
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.26.13 S5731S-S48S4X-A (98011806)

Overview

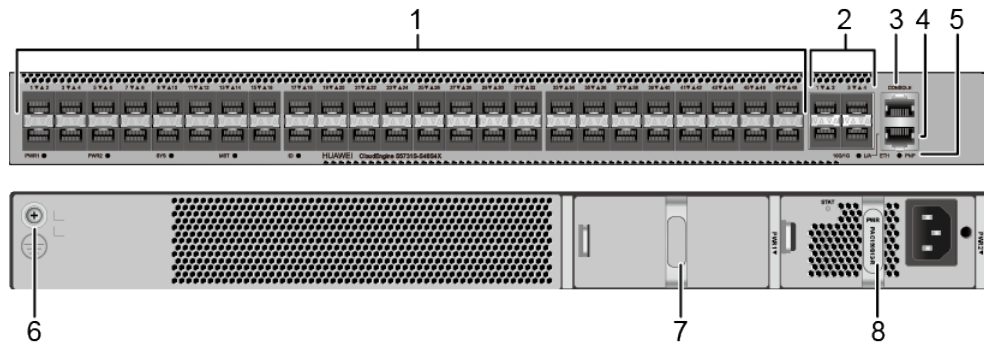
Table 4-1375 Basic information about the S5731S-S48S4X-A

Item	Details
Description	S5731S-S48S4X Bundle(48*GE SFP ports, 4*10GE SFP+ ports, with AC power supply)
Part Number	98011806
Model	S5731S-S48S4X-A

Item	Details
First supported version	V200R021C01

Components

Figure 4-539 S5731S-S48S4X-A appearance



1	Forty-eight 100/1000BASE-X ports NOTE In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port
5	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	Ground screw NOTE It is used with a ground cable .

7	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	8	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)
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Ports

Table 4-1376 Ports on the S5731S-S48S4X-A

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

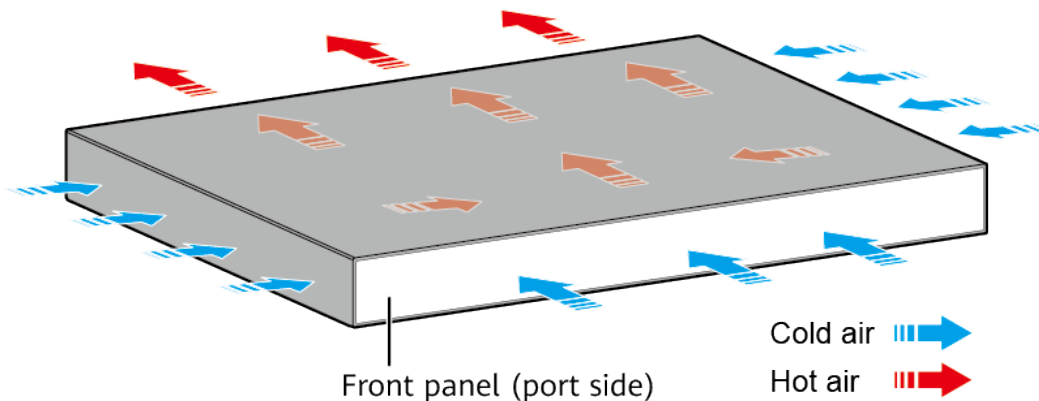
The S5731S-S48S4X-A has the same types of indicators as the S5731S-S32ST4X-A. For details, see the S5731S-S32ST4X-A.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1377 Technical specifications of the S5731S-S48S4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.40 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.9 kg (13.01 lb)
Weight with packaging [kg(lb)]	8.43 kg (18.58 lb)
Typical power consumption [W]	93.69 W
Typical heat dissipation [BTU/hour]	319.68 BTU/hour
Maximum power consumption [W]	128.89 W (150 W AC or 180 W DC) 141.96 W (600 W AC)
Maximum heat dissipation [BTU/hour]	439.79 (150 W AC or 180 W DC) 484.38 (600 W AC)
Static power consumption [W]	50.44 W

Item	Specification
MTBF [years]	64.97 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.79 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	3
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz High-voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications depend on the pluggable power modules in use. For details, see the related power module specifications.
Memory	2 GB
Flash memory	The physical space is 1 GB. You can run the display version command to view the actual available space.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.26.14 S5731S-S48S4X-A (98011806-001)

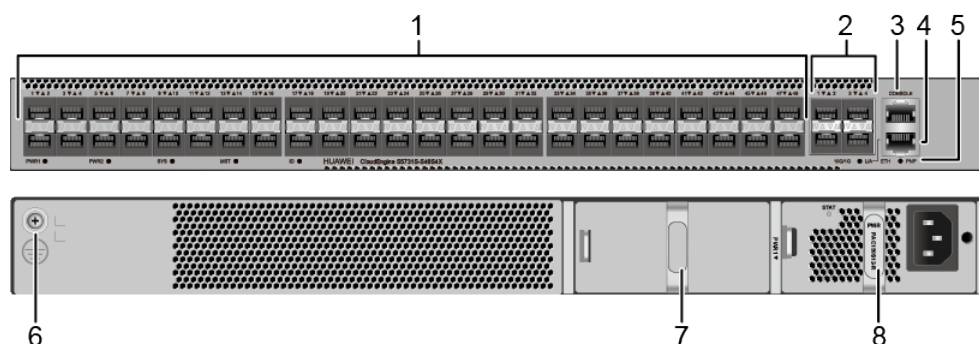
Overview

Table 4-1378 Basic information about the S5731S-S48S4X-A

Item	Details
Description	S5731S-S48S4X Bundle(48*GE SFP ports, 4*10GE SFP+ ports, with AC power supply)
Part Number	98011806-001
Model	S5731S-S48S4X-A
First supported version	V200R021C10SPC600

Components

Figure 4-540 S5731S-S48S4X-A appearance



1	Forty-eight 100/1000BASE-X ports NOTE In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) 	8	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module)

Ports

Table 4-1379 Ports on the S5731S-S48S4X-A

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

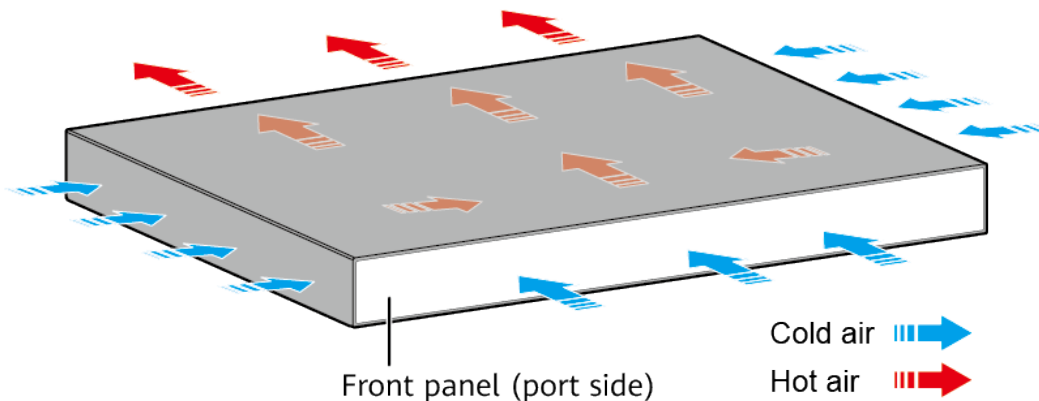
The S5731S-S48S4X-A has the same types of indicators as the S5731S-S32ST4X-A. For details, see the S5731S-S32ST4X-A.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1380 Technical specifications of the S5731S-S48S4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.9 kg (13.01 lb)
Weight with packaging [kg(lb)]	8.43 kg (18.58 lb)
Typical power consumption [W]	93.69 W
Typical heat dissipation [BTU/hour]	319.68 BTU/hour
Maximum power consumption [W]	128.89 W (150 W AC or 180 W DC) 141.96 W (600 W AC)
Maximum heat dissipation [BTU/hour]	439.79 (150 W AC or 180 W DC) 484.38 (600 W AC)
Static power consumption [W]	50.44 W

Item	Specification
MTBF [years]	64.97 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	45.47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.79 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	3
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode ● Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.26.15 S5731S-S48S4X-A1 (98011802)

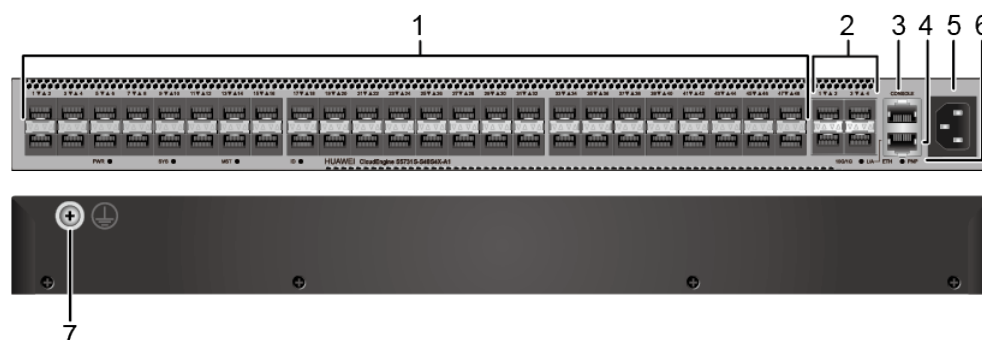
Overview

Table 4-1381 Basic information about the S5731S-S48S4X-A1

Item	Details
Description	S5731S-S48S4X-A1(48*GE SFP ports, 4*10GE SFP+ ports, AC power, front access)
Part Number	98011802
Model	S5731S-S48S4X-A1
First supported version	V200R021C01

Components

Figure 4-541 S5731S-S48S4X-A1 appearance



1	Forty-eight 100/1000BASE-X ports NOTE In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port

5	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	6	<p>One PNP button</p> <p>NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	-	-

Ports

Table 4-1382 Ports on the S5731S-S48S4X-A1

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

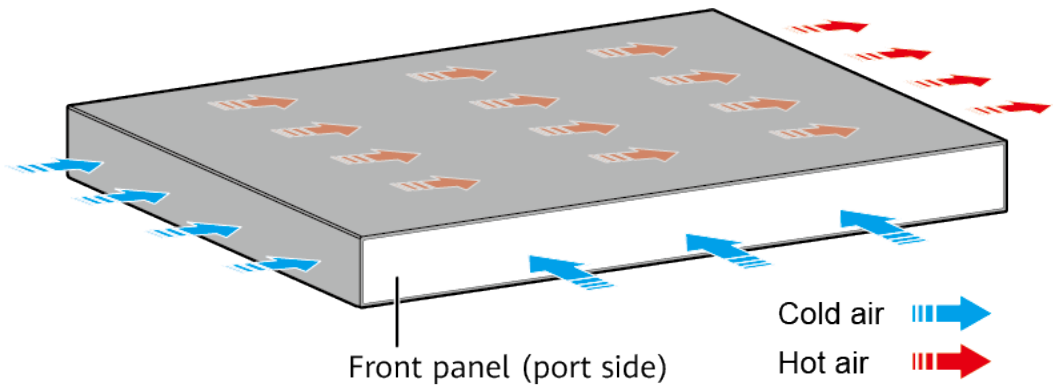
The S5731S-S48S4X-A1 has the same types of indicators as the S5731S-S32ST4X-A1. For details, see the S5731S-S32ST4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1383 Technical specifications of the S5731S-S48S4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.40 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.40 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 355 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.49 kg (7.69 lb)
Weight with packaging [kg(lb)]	4.85 kg (10.69 lb)
Typical power consumption [W]	87.89 W
Typical heat dissipation [BTU/hour]	299.89 BTU/hour
Maximum power consumption [W]	121.04 W
Maximum heat dissipation [BTU/hour]	413.00 BTU/hour
Static power consumption [W]	47.28 W
MTBF [years]	31.39 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	41.42 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.74 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	- AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	- AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB

Item	Specification
Flash memory	The physical space is 1 GB. You can run the display version command to view the actual available space.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	±6 kV in differential mode; ±6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.26.16 S5731S-S48S4X-A1 (98011802-001)

Overview

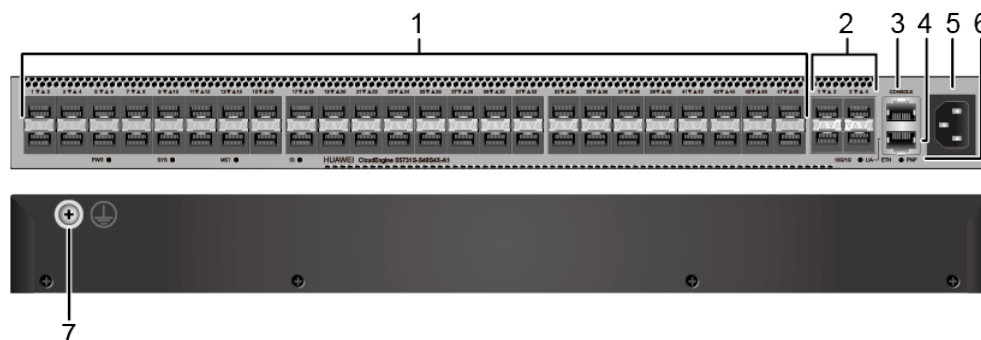
Table 4-1384 Basic information about the S5731S-S48S4X-A1

Item	Details
Description	S5731S-S48S4X-A1 (48*GE SFP ports, 4*10GE SFP+ ports, AC power, front access)
Part Number	98011802-001
Model	S5731S-S48S4X-A1

Item	Details
First supported version	V200R021C10SPC600

Components

Figure 4-542 S5731S-S48S4X-A1 appearance



1	Forty-eight 100/1000BASE-X ports NOTE In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.	2	Four 10GE SFP+ ports
3	One console port	4	One ETH management port
5	AC socket NOTE It is used with an AC power cable .	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	-	-

Ports

Table 4-1385 Ports on the S5731S-S48S4X-A1

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	<p>A 100/1000BASE-X port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s.</p> <p>In V200R023C00 and later versions, ports numbered from GE5 to GE48 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

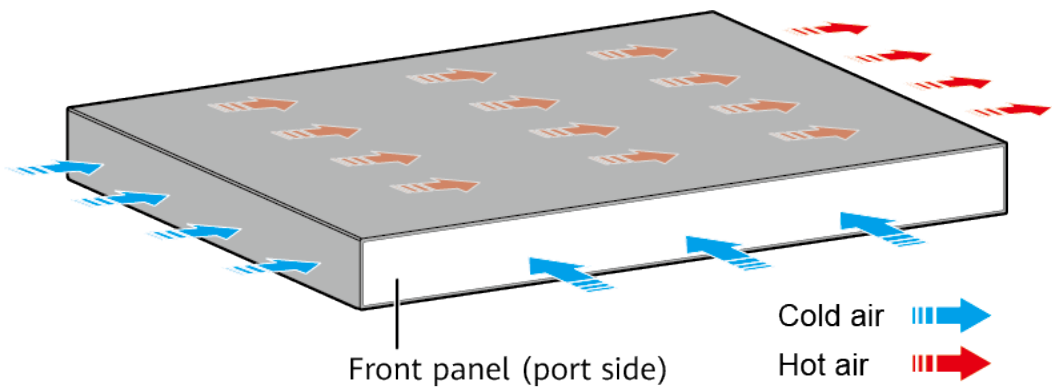
The S5731S-S48S4X-A1 has the same types of indicators as the S5731S-S32ST4X-A1. For details, see the S5731S-S32ST4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1386 Technical specifications of the S5731S-S48S4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 355 mm (3.54 in. x 21.65 in. x 13.98 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.49 kg (7.69 lb)
Weight with packaging [kg(lb)]	4.85 kg (10.69 lb)
Typical power consumption [W]	87.89 W
Typical heat dissipation [BTU/hour]	299.89 BTU/hour
Maximum power consumption [W]	121.04 W
Maximum heat dissipation [BTU/hour]	413.00 BTU/hour
Static power consumption [W]	47.28 W
MTBF [years]	31.39 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	41.42 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.74 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>

Item	Specification
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	- AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	- AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.27 S5731-H

4.27.1 S5731-H24T4XC (02352QPP/ 02352QPP-001/02352QPP-005)

Version Mapping

Table 4-1387 lists the mapping between the S5731-H24T4XC chassis and software versions.

Table 4-1387 Version mapping

Series	Model	Software Version
S5731-H	S5731-H24T4XC	02352QPP: V200R013C02 and later versions 02352QPP-001: V200R020C10 and later versions 02352QPP-005: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.)

Appearance and Structure

Figure 4-543 S5731-H24T4XC (02352QPP) appearance

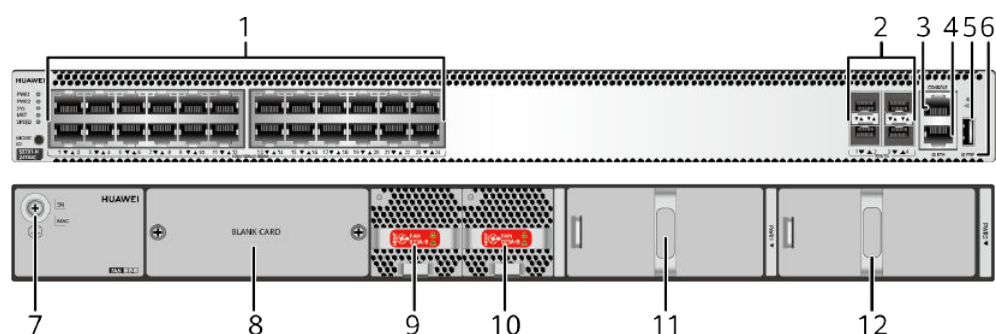
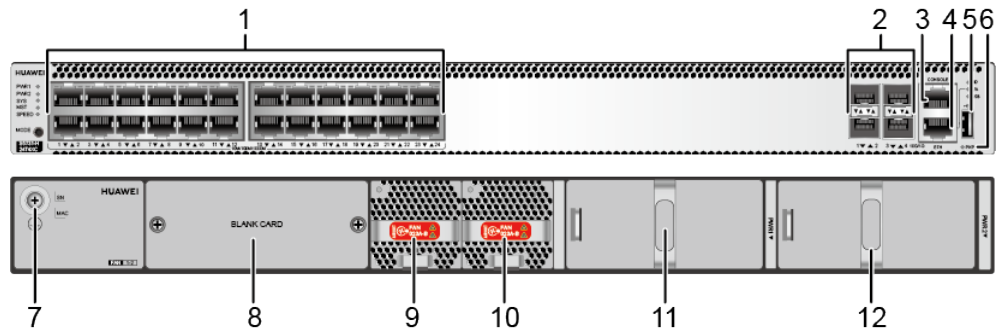


Figure 4-544 S5731-H24T4XC (02352QPP-001/02352QPP-005) appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Rear card slot</p> <p>NOTE Applicable card:</p> <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (02312URW) (applicable in V200R019C10 and later versions) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) (applicable in V200R021C01 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions)
9	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	10	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
11	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	12	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1388](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1388 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1389](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1389 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1390](#).

Table 4-1390 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1391](#) describes the attributes of an ETH management port.

Table 4-1391 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

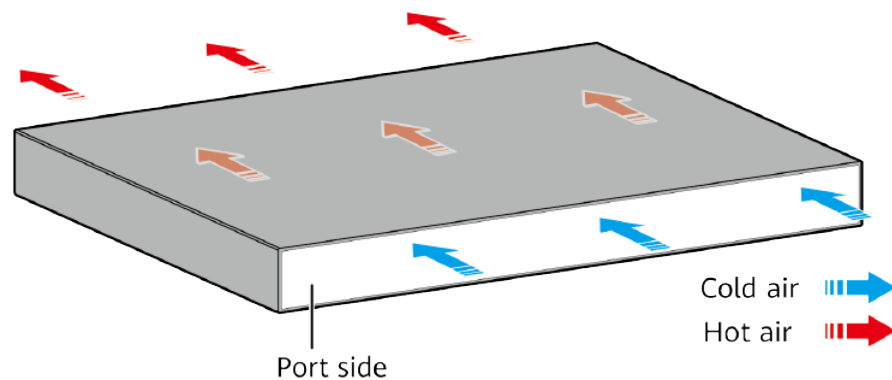
The S5731-H24T4XC has similar indicators to those on the S5731-H48P4XC except that the S5731-H24T4XC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731-H24T4XC uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1392](#) lists technical specifications of the S5731-H24T4XC.

Table 4-1392 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.4 kg (18.52 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	114 W (without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	88 W (without card)

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352QPP 02352QPP-001 02352QPP-005

4.27.2 S5731-H24P4XC (02352QPV/02352QPV-001/02352QPV-003)

Version Mapping

[Table 4-1393](#) lists the mapping between the S5731-H24P4XC chassis and software versions.

Table 4-1393 Version mapping

Series	Model	Software Version
S5731-H	S5731-H24P4XC	02352QPV: V200R013C02 and later versions 02352QPV-001: V200R020C10 and later versions 02352QPV-003: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.)

Appearance and Structure

Figure 4-545 S5731-H24P4XC (02352QPV) appearance

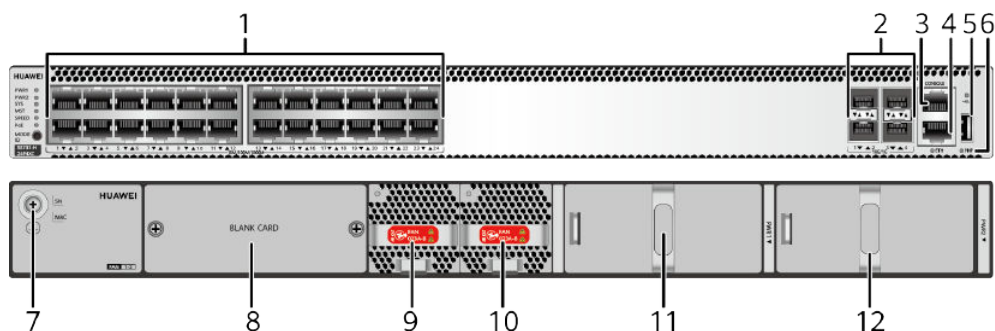
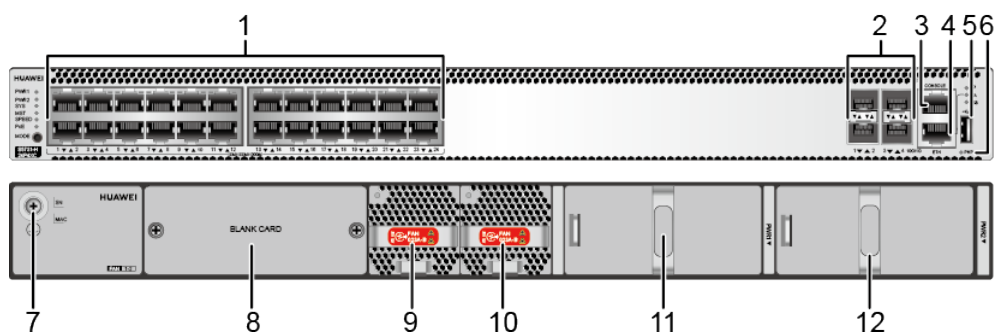


Figure 4-546 S5731-H24P4XC (02352QPV-001/02352QPV-003) appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • E55D21X08T00 • E55D21Q02Q00 • S7X08000 (02312URW) (applicable in V200R019C10 and later versions) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) (applicable in V200R021C01 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions)

9	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	1 0	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
1 1	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions) 	1 2	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1394](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1394 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1395](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1395 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1396](#).

Table 4-1396 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1397](#) describes the attributes of an ETH management port.

Table 4-1397 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5731-H24P4XC has the same types of indicators as the S5731-H48P4XC. For details, see [Indicator Description](#).

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1398 Power supply configurations

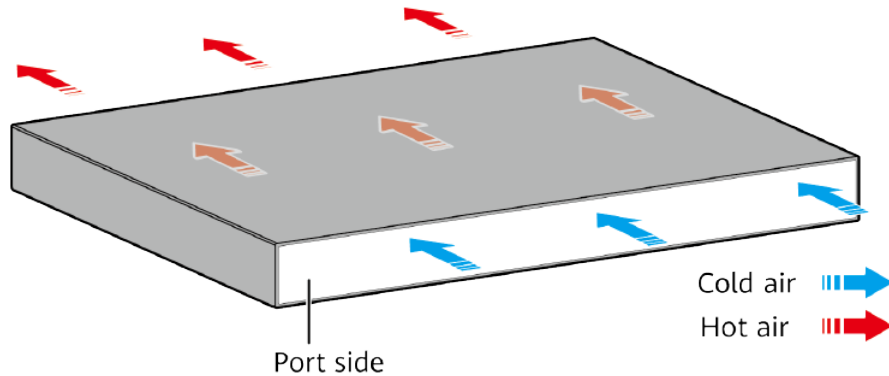
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	-	760 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W AC (110 V)	-	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 22
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	Versions earlier than V200R021C10: 1330 W V200R021C10 and later versions: 1520 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
600 W AC (220 V)	-	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
600 W AC (110 V)	-	95 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 6 802.3at (30 W per port): 3
600 W AC (220 V)	600 W AC (220 V)	950 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
600 W AC (110 V)	600 W AC (110 V)	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731-H24P4XC uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1399 lists technical specifications of the S5731-H24P4XC.

Table 4-1399 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.21 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.6 kg (18.96 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 121 W (without card) 100% PoE loads: 977 W (PoE: 720 W, without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	95 W (without card)

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352QPV 02352QPV-001 02352QPV-003

4.27.3 S5731-H48T4XC (02352QPT/02352QPT-003/02352QPT-007)

Version Mapping

Table 4-1400 lists the mapping between the S5731-H48T4XC chassis and software versions.

Table 4-1400 Version mapping

Series	Model	Software Version
S5731-H	S5731-H48T4XC	02352QPT: V200R013C02 and later versions 02352QPT-003: V200R020C10 and later versions 02352QPT-007: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.)

Appearance and Structure

Figure 4-547 S5731-H48T4XC (02352QPT) appearance

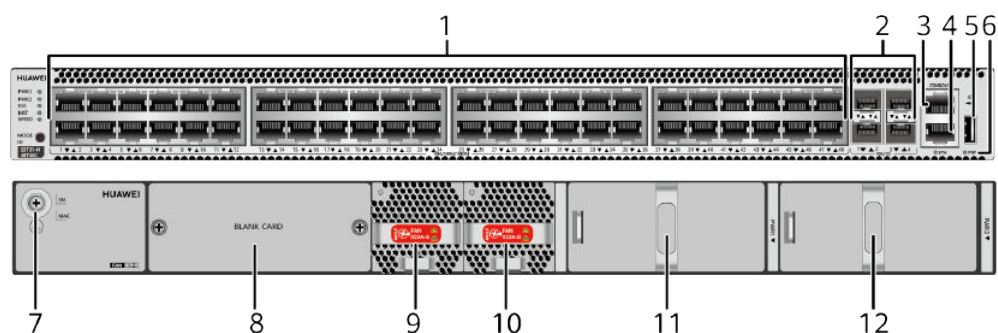
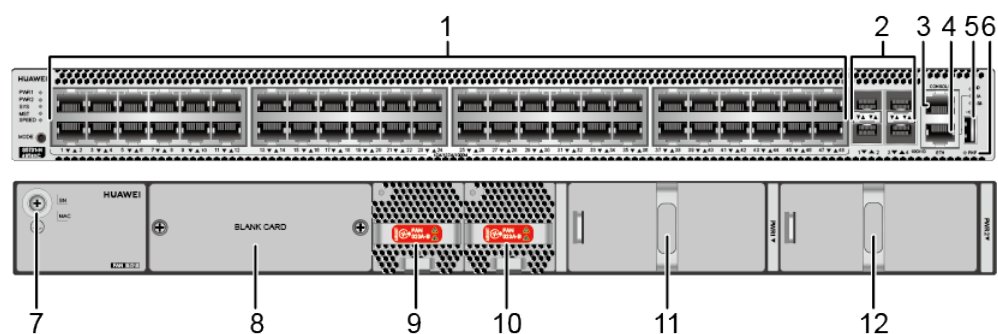


Figure 4-548 S5731-H48T4XC (02352QPT-003/02352QPT-007) appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • E55D21X08T00 • E55D21Q02Q00 • S7X08000 (02312URW) (applicable in V200R019C10 and later versions) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) (applicable in V200R021C01 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions)

9	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	10	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
11	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	12	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1401](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1401 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1402](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1402 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1403](#).

Table 4-1403 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1404](#) describes the attributes of an ETH management port.

Table 4-1404 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

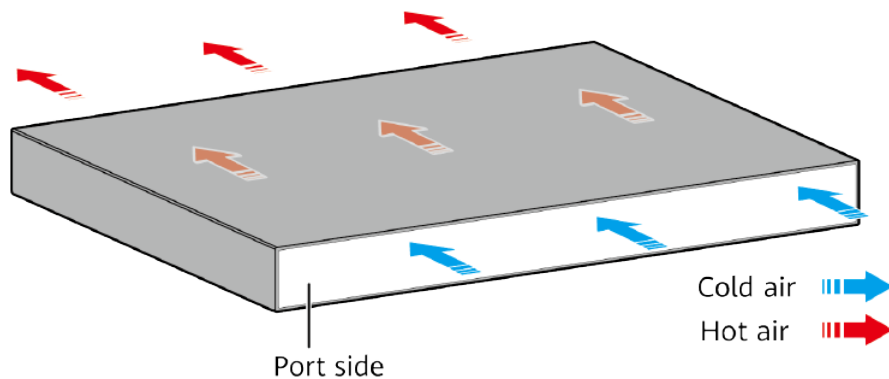
The S5731-H48T4XC has similar indicators to those on the S5731-H48P4XC except that the S5731-H48T4XC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731-H48T4XC uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1405 lists technical specifications of the S5731-H48T4XC.

Table 4-1405 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)

Item	Description
Weight (with packaging)	8.55 kg (18.85 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W (without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	101 W (without card)
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352QPT 02352QPT-003 02352QPT-007

4.27.4 S5731-H48P4XC (02352SVD/ 02352SVD-001/02352SVD-003)

Version Mapping

Table 4-1406 lists the mapping between the S5731-H48P4XC chassis and software versions.

Table 4-1406 Version mapping

Series	Model	Software Version
S5731-H	S5731-H48P4XC	02352SVD: V200R013C02 and later versions 02352SVD-001: V200R020C10 and later versions 02352SVD-003: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.)

Appearance and Structure

Figure 4-549 S5731-H48P4XC (02352SVD) appearance

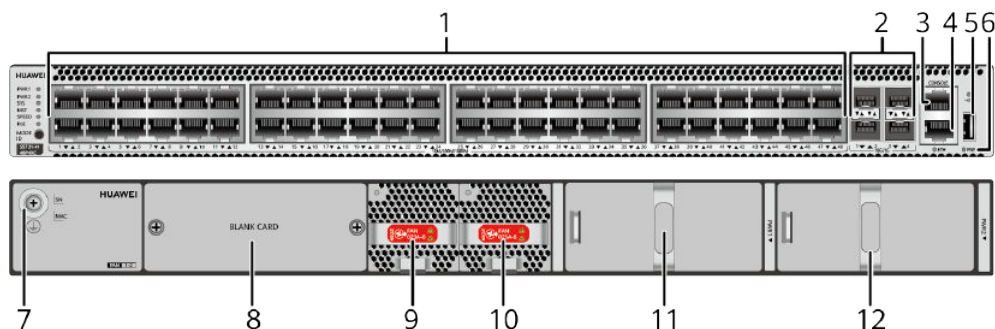
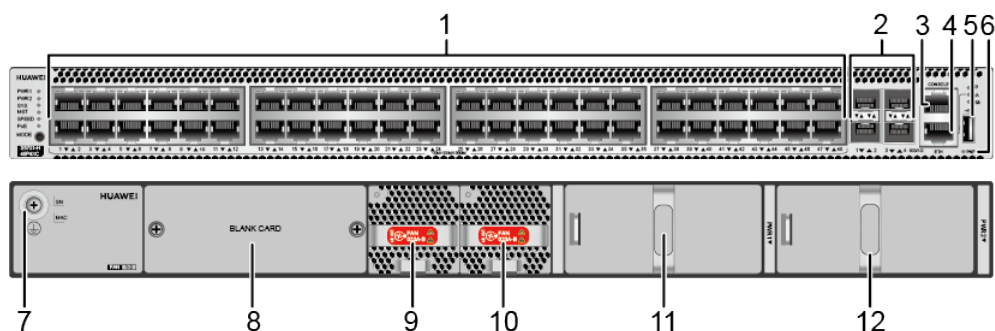


Figure 4-550 S5731-H48P4XC (02352SVD-001/02352SVD-003) appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port

5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (02312URW) (applicable in V200R019C10 and later versions) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) (applicable in V200R021C01 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions)
9	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	10	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

1 1	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions) 	1 2	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions)
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1407](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1407 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1408](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1408 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1409](#).

Table 4-1409 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1410](#) describes the attributes of an ETH management port.

Table 4-1410 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-551 Indicators on the S5731-H48P4XC (02352SVD)

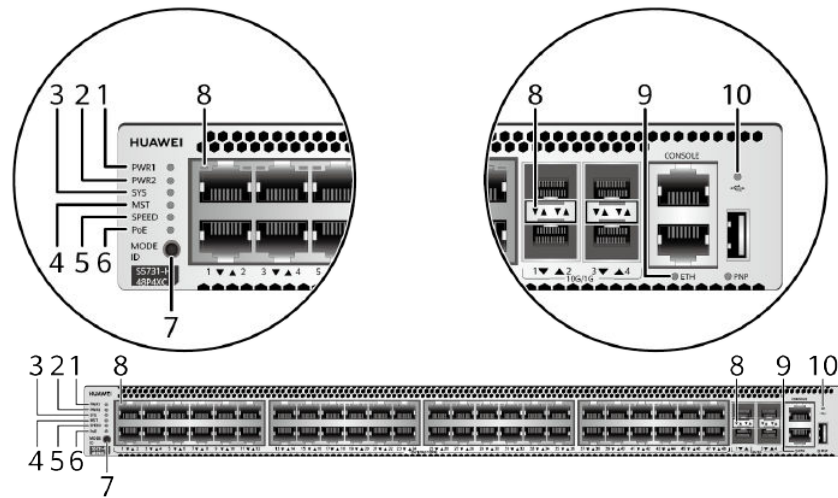


Figure 4-552 Indicators on the S5731-H48P4XC (02352SVD-001/02352SVD-003)

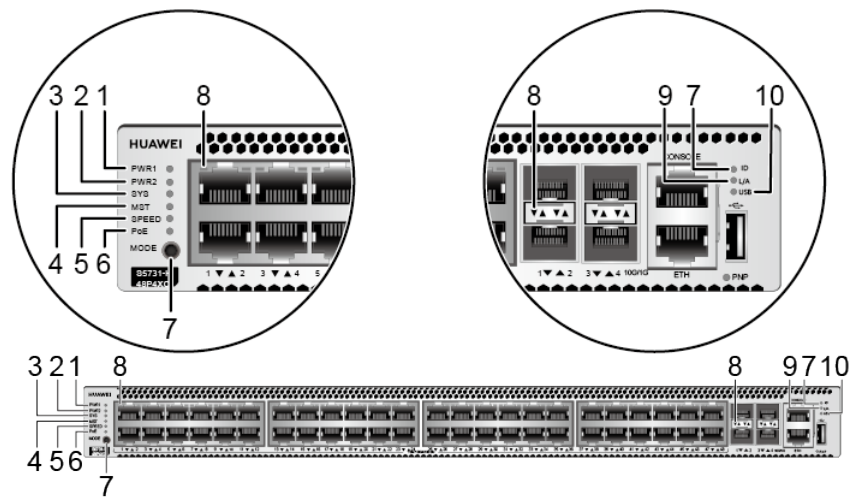


Table 4-1411 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>
	ID	ID indicator	-	Off	The ID indicator is not used (default state).
		NOTE The mode switch button has an ID indicator.	Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.

No.	Indicator	Name	Color	Status	Description
8	-	Electrical service port indicator (one indicator for each port)	The indicator in the upper left corner of a port indicates the indicator of a port at the top, and the indicator in the upper right corner indicates the indicator of a port at the bottom.		Meanings of service port indicators vary in different modes. For details, see Table 4-1412 and Table 4-1413 .
		Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
9	ETH	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1412 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	Green	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
		Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
		Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-1413 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s. 1000M port: The port is operating at 1000 Mbit/s.

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1414 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	-	760 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W AC (110 V)	-	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 43 802.3at (30 W per port): 22
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	Versions earlier than V200R021C10: 1330 W V200R021C10 and later versions: 1520 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48

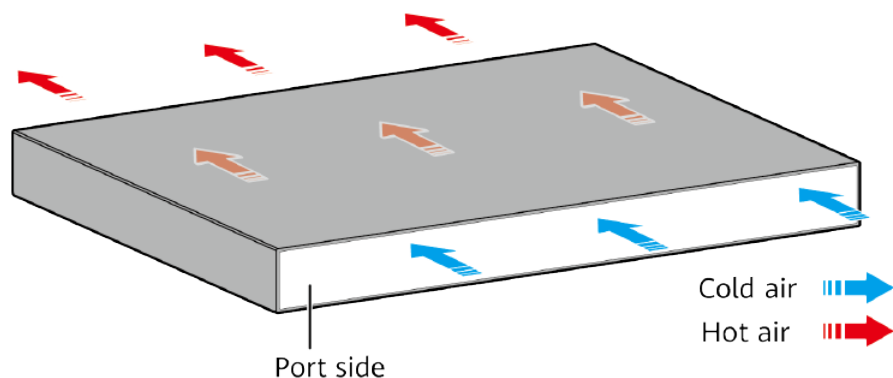
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	-	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
600 W AC (110 V)	-	95 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 6 802.3at (30 W per port): 3
600 W AC (220 V)	600 W AC (220 V)	950 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 31
600 W AC (110 V)	600 W AC (110 V)	380 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 44

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731-H48P4XC uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1415](#) lists technical specifications of the S5731-H48P4XC.

Table 4-1415 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	54.96 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.8 kg (19.40 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Not providing the PoE function: 132 W (without card) ● 100% PoE loads: 1750 W (PoE: 1440 W, without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	108 W (without card)
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification

Item	Description
Part number	02352SVD 02352SVD-001 02352SVD-003

4.27.5 S5731-H48T4XC-B (02353VAD/ 02353VAD-003/02353VAD-005)

Version Mapping

Table 4-1416 lists the mapping between the S5731-H48T4XC-B chassis and software versions.

Table 4-1416 Version mapping

Series	Model	Software Version
S5731-H	S5731-H48T4XC-B	02353VAD: V200R020C00 and later versions 02353VAD-003: V200R020C10 and later versions 02353VAD-005: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.)

Appearance and Structure

Figure 4-553 S5731-H48T4XC-B (02353VAD) appearance

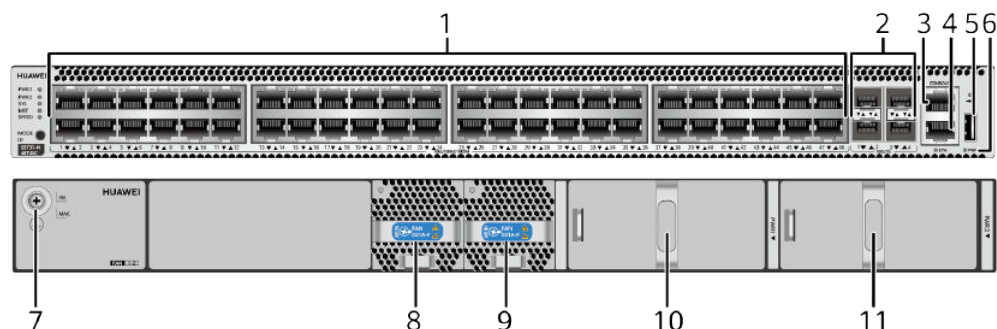
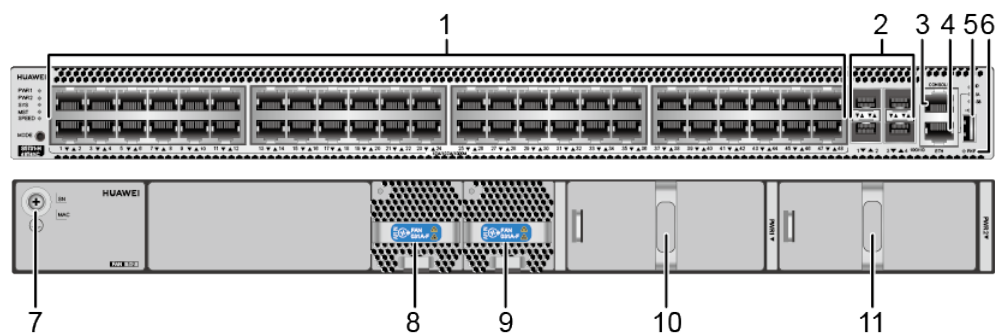


Figure 4-554 S5731-H48T4XC-B (02353VAD-003/02353VAD-005) appearance



1	Forty-eight 10/100/1000BASE-T ports	2 Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4 One ETH management port
5	One USB port	6 One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Fan module slot 1 NOTE Applicable fan module: 7.6 FAN-031A-F (Fan box (F, FAN panel side intake))
9	Fan module slot 2 NOTE Applicable fan module: 7.6 FAN-031A-F (Fan box (F, FAN panel side intake))	10	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module)
11	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1417](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1417 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1418](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1418 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1419](#).

Table 4-1419 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1420](#) describes the attributes of an ETH management port.

Table 4-1420 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

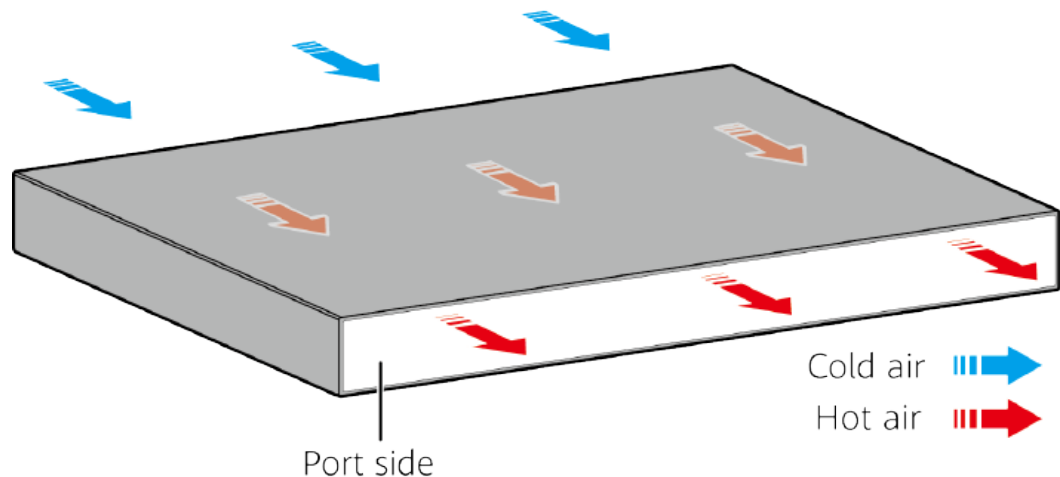
The S5731-H48T4XC-B has similar indicators to those on the S5731-H48P4XC except that the S5731-H48T4XC-B does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731-H48T4XC-B uses pluggable fan modules for forced air cooling. Air flows in from the rear panel and exhausts from the front side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1421 lists technical specifications of the S5731-H48T4XC-B.

Table 4-1421 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.55 kg (18.85 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzDC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzDC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	130 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	82.89 W
Operating temperature	-5°C to +40°C (23°F to 104°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 59.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02353VAD 02353VAD-003 02353VAD-005

4.27.6 S5731-H24HB4XZ (02354QXD)

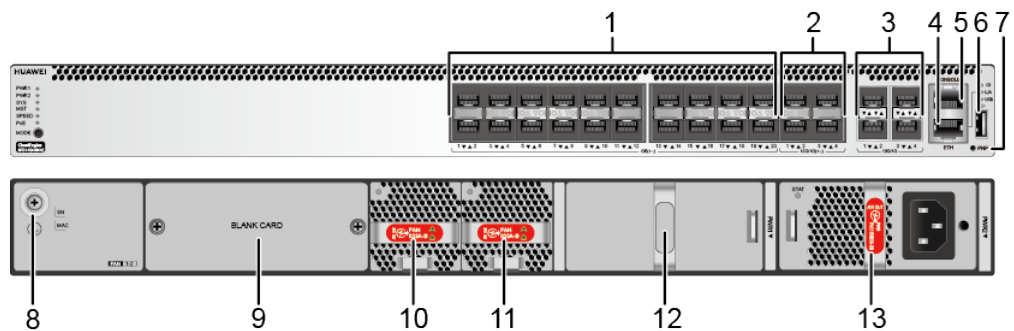
Overview

Table 4-1422 Basic information about the S5731-H24HB4XZ

Item	Details
Description	S5731-H24HB4XZ(20*Hybrid GE SFP ports, 4*Hybrid 10GE SFP+ ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, without power module)
Part Number	02354QXD
Model	S5731-H24HB4XZ
First supported version	V200R021C10SPC500

Components

Figure 4-555 S5731-H24HB4XZ appearance



1	<p>Twenty 100/1000BASE-X hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE In V200R023C00 and later versions, 100/1000BASE-X hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	2	<p>Four 10GE SFP+ hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>
3	Four 10GE SFP+ optical ports	4	One ETH management port
5	One console port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE It is used with a ground cable. Two OT grounding holes are provided on the side of the switch. If two OT terminals are required for grounding, you can purchase the two OT terminals separately.</p>

9	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (02312URW) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions) <p>If the rate of an port is set to 2.5 Gbit/s, the rear card cannot be used.</p>	1 0	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
1 1	<p>Fan module slot 2</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	1 2	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust))

1	Power module slot 2	-	-
3	NOTE Applicable power modules: <ul style="list-style-type: none">• 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module)• 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module)• 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module)• 5.29 PDC1000S56-CB (1000 W PoE DC Power Module)• 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust))		

Ports

Table 4-1423 Ports on the S5731-H24HB4XZ

Port	Connector Type	Description	Available Components
100/1000BASE-X hybrid optical-electrical port	SFP	<p>A 100/1000BASE-X hybrid optical-electrical port can send and receive data at 100 Mbit/s or 1000 Mbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 100/1000BASE-X hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • GE SFP Hybrid Modules • 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions) • 2.5GE eSFP Hybrid Modules (supported in V200R023C00 and later versions) • Hybrid cable 2.0

Port	Connector Type	Description	Available Components
10GE SFP+ hybrid optical-electrical port	SFP+	<p>A 10GE SFP+ hybrid optical-electrical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s, 2.5 Gbit/s, or 10 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● GE SFP Hybrid Modules ● 10GE SFP+ Hybrid Modules ● 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions) ● 2.5GE eSFP Hybrid Modules

Port	Connector Type	Description	Available Components
			<p>(supported in V200R023C00 and later versions)</p> <ul style="list-style-type: none"> • Hybrid cable 2.0
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-556 Indicators on the switch

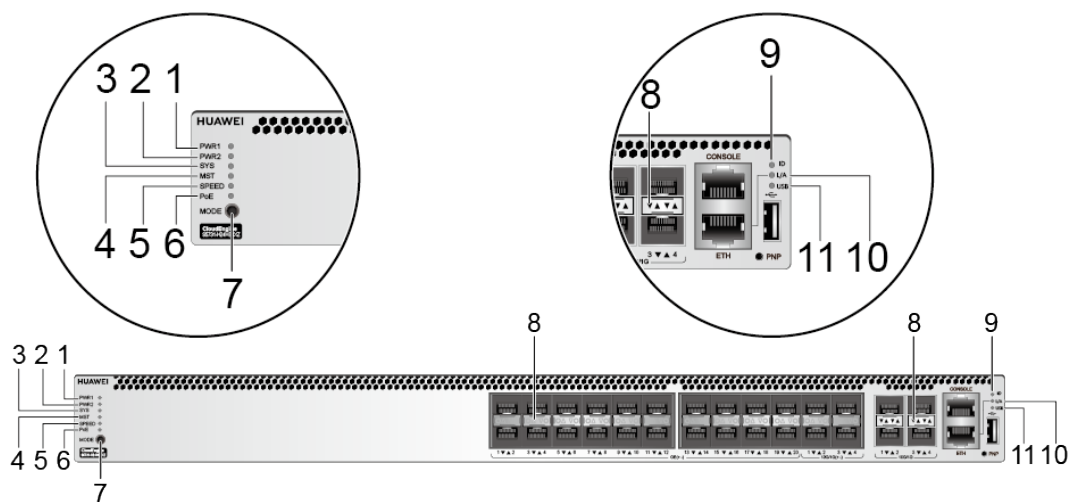


Table 4-1424 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
8	-	Hybrid optical-electrical port indicator	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see Table 4-1425 and Table 4-1426 .
		10GE optical port indicator	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1425 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-1426 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply System

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1427 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	-	818 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 13 • 802.3bt (90 W per port): 9

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (110 V)	–	723 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1768 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 19
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1578 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 17
600 W AC (220 V)	–	438 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 14 ● 802.3bt (60 W per port): 7 ● 802.3bt (90 W per port): 4
600 W AC (110 V)	–	153 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 9 ● 802.3at (30 W per port): 5 ● 802.3bt (60 W per port): 2 ● 802.3bt (90 W per port): 1

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	600 W AC (220 V)	1008 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 16 802.3bt (90 W per port): 11
600 W AC (110 V)	600 W AC (110 V)	438 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 14 802.3bt (60 W per port): 7 802.3bt (90 W per port): 4
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1388 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 23 802.3bt (90 W per port): 15

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

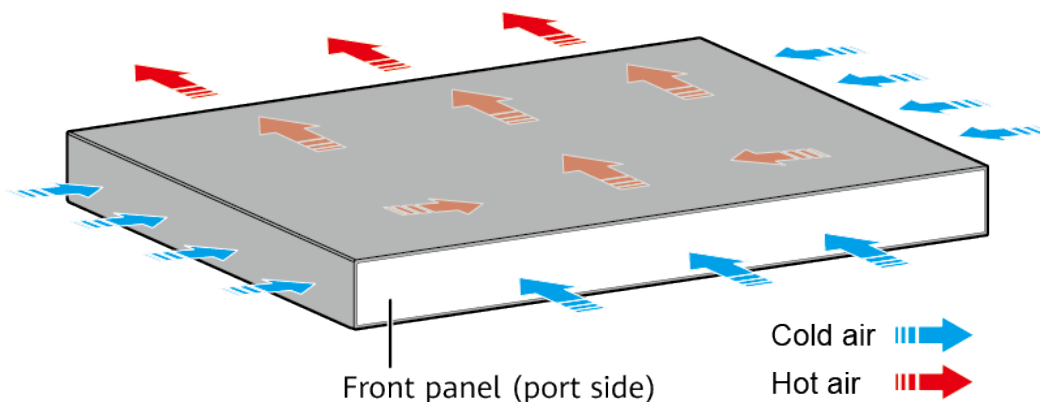
When a hybrid optical-electrical port is used for PoE power supply, the power supply capability and distance vary according to hybrid cables with different cable diameters. You can use the [Central Switch-to-RU Cable Length Calculation Tool](#) to calculate the power supply distance of the hybrid cable in different scenarios.

 **NOTE**

- The hybrid switch uses hybrid cables to connect to and supply power to APs or remote units of specific models. (For details about the AP models to which hybrid cables can supply power, see the WLAN AP product documentation. The remote unit that supports hybrid cables is S5731-L4P2HW-RUA, S5731S-L4P2HW-RUA, S5731-L4P2HT-RUA, S5731S-L4P2HT-RUA, S5731-L8P2HT-RUA, and S5731S-L8P2HT-RUA.)
- The hybrid switch cannot be connected to devices other than remote units or APs using hybrid cables.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1428 Technical specifications of the S5731-H24HB4XZ

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.7 kg (12.57 lb)
Weight with packaging [kg(lb)]	7.5 kg (16.53 lb)
Typical power consumption [W]	87 W
Typical heat dissipation [BTU/hour]	296.85 BTU/hour

Item	Specification
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 127 W (without cards) Full PoE load: 1927 W (PoE: 1768 W, without cards)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 433.34 (without cards) Full PoE load: 6575.12 (without cards)
Static power consumption [W]	66 W
MTBF [years]	53.82 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Dual-AC 600 W, 70% load: 57.77 dBA Dual-AC 1000 W, 70% load: 63.78 dBA Dual-DC 1000 W, 70% load: 62.38 dBA Dual-AC 600 W, 100% load: 63.78 dBA Dual-AC 1000 W, 100% load: 68.07 dBA Dual-DC 1000 W, 100% load: 66.26 dBA
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.51 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none">• The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year.• The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours.• The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none">• AC input: 100 V AC to 240 V AC; 50/60 Hz• High-voltage DC input: 240 V DC• DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode ● Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Supported

Item	Specification
Certification	EMC certification (The EMC radiated emission complies with standards requirements, although it may vary according to installation of optical modules or copper modules.) Safety certification Manufacturing certification

4.27.7 S5731-H24HB4XZ (02354QXD-001)

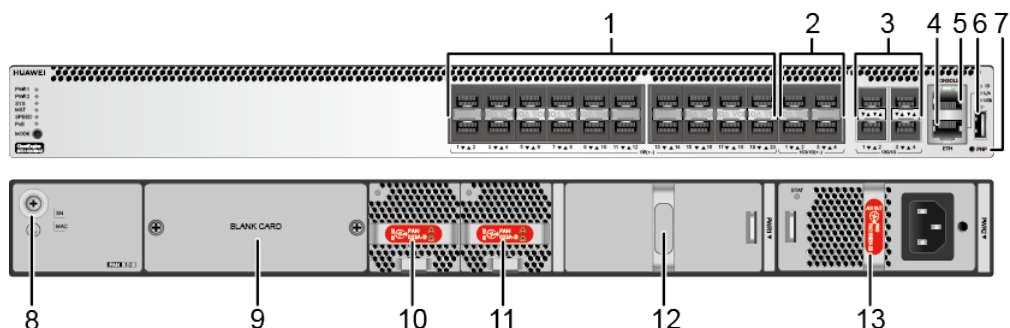
Overview

Table 4-1429 Basic information about the S5731-H24HB4XZ

Item	Details
Description	S5731-H24HB4XZ(20*Hybrid GE SFP ports, 4*Hybrid 10GE SFP+ ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, without power module)
Part Number	02354QXD-001
Model	S5731-H24HB4XZ
First supported version	V200R021C10SPC600

Components

Figure 4-557 S5731-H24HB4XZ appearance



1	<p>Twenty 100/1000BASE-X hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, 100/1000BASE-X hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	2	<p>Four 10GE SFP+ hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>
3	Four 10GE SFP+ optical ports	4	One ETH management port
5	One console port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p> <p>Two OT grounding holes are provided on the side of the switch. If two OT terminals are required for grounding, you can purchase the two OT terminals separately.</p>
9	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (02312URW) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions) <p>If the rate of an port is set to 2.5 Gbit/s, the rear card cannot be used.</p>	10	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

<p>1 1</p>	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	<p>1 2</p>	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust))
<p>1 3</p>	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) 	<p>-</p>	<p>-</p>

Ports

Table 4-1430 Ports on the S5731-H24HB4XZ

Port	Connector Type	Description	Available Components
100/1000BASE-X hybrid optical-electrical port	SFP	<p>A 100/1000BASE-X hybrid optical-electrical port can send and receive data at 100 Mbit/s or 1000 Mbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 100/1000BASE-X hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • GE SFP Hybrid Modules • 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions) • 2.5GE eSFP Hybrid Modules (supported in V200R023C00 and later versions) • Hybrid cable 2.0

Port	Connector Type	Description	Available Components
<p>10GE SFP+ hybrid optical-electrical port</p>	<p>SFP+</p>	<p>A 10GE SFP+ hybrid optical-electrical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s, 2.5 Gbit/s, or 10 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● GE SFP Hybrid Modules ● 10GE SFP+ Hybrid Modules ● 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions) ● 2.5GE eSFP Hybrid Modules

Port	Connector Type	Description	Available Components
			<p>(supported in V200R023C00 and later versions)</p> <ul style="list-style-type: none"> Hybrid cable 2.0
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> GE eSFP optical modules GE-CWDM eSFP optical modules GE-DWDM eSFP optical modules GE SFP copper module 10GE SFP+ optical modules (OSXD22N00 not supported) 10GE-CWDM SFP+ optical modules 10GE-DWDM SFP+ optical modules 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables 3 m and 10 m SFP+ AOC cables 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-558 Indicators on the switch

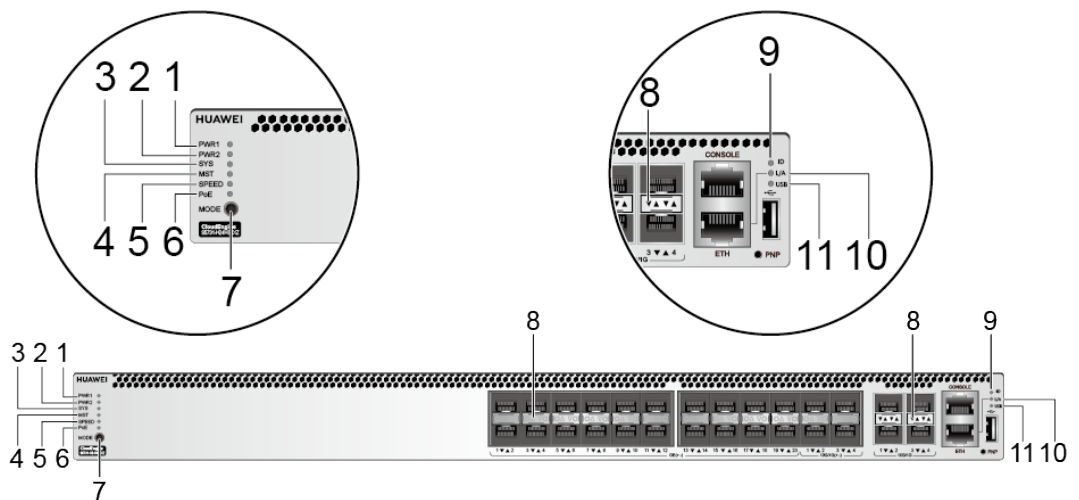


Table 4-1431 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
8	-	Hybrid optical-electrical port indicator	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see Table 4-1432 and Table 4-1433 .
		10GE optical port indicator	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1432 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-1433 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply System

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1434 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	-	818 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 13 • 802.3bt (90 W per port): 9

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (110 V)	–	723 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1768 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 19
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1578 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 17
600 W AC (220 V)	–	438 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 14 ● 802.3bt (60 W per port): 7 ● 802.3bt (90 W per port): 4
600 W AC (110 V)	–	153 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 9 ● 802.3at (30 W per port): 5 ● 802.3bt (60 W per port): 2 ● 802.3bt (90 W per port): 1

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	600 W AC (220 V)	1008 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 16 802.3bt (90 W per port): 11
600 W AC (110 V)	600 W AC (110 V)	438 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 14 802.3bt (60 W per port): 7 802.3bt (90 W per port): 4
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1388 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 23 802.3bt (90 W per port): 15

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

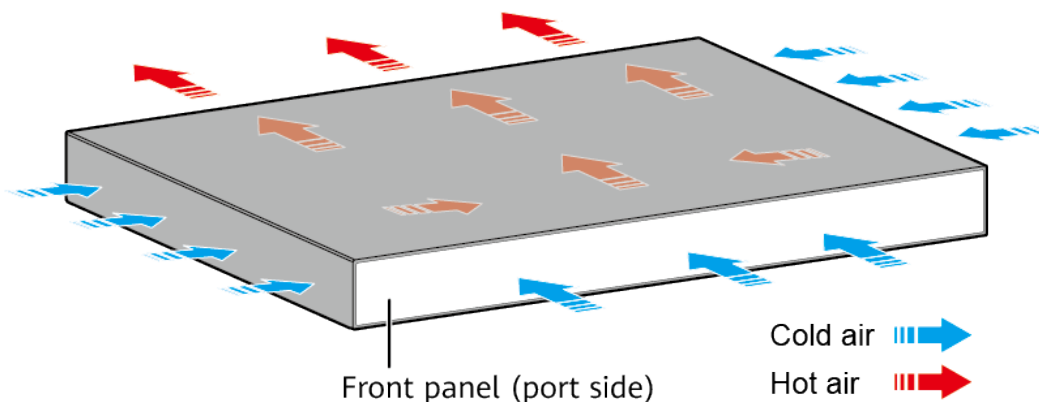
When a hybrid optical-electrical port is used for PoE power supply, the power supply capability and distance vary according to hybrid cables with different cable diameters. You can use the [Central Switch-to-RU Cable Length Calculation Tool](#) to calculate the power supply distance of the hybrid cable in different scenarios.

 **NOTE**

- The hybrid switch uses hybrid cables to connect to and supply power to APs or remote units of specific models. (For details about the AP models to which hybrid cables can supply power, see the WLAN AP product documentation. The remote unit that supports hybrid cables is S5731-L4P2HW-RUA, S5731S-L4P2HW-RUA, S5731-L4P2HT-RUA, S5731S-L4P2HT-RUA, S5731-L8P2HT-RUA, and S5731S-L8P2HT-RUA.)
- The hybrid switch cannot be connected to devices other than remote units or APs using hybrid cables.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1435 Technical specifications of the S5731-H24HB4XZ

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.7 kg (12.57 lb)
Weight with packaging [kg(lb)]	7.5 kg (16.53 lb)
Typical power consumption [W]	87 W
Typical heat dissipation [BTU/hour]	296.85 BTU/hour

Item	Specification
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 127 W (without cards) Full PoE load: 1927 W (PoE: 1768 W, without cards)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 433.34 (without cards) Full PoE load: 6575.12 (without cards)
Static power consumption [W]	66 W
MTBF [years]	53.82 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Dual-AC 600 W, 70% load: 57.77 dBA Dual-AC 1000 W, 70% load: 63.78 dBA Dual-DC 1000 W, 70% load: 62.38 dBA Dual-AC 600 W, 100% load: 63.78 dBA Dual-AC 1000 W, 100% load: 68.07 dBA Dual-DC 1000 W, 100% load: 66.26 dBA
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode ● Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Supported

Item	Specification
Certification	EMC certification (The EMC radiated emission complies with standards requirements, although it may vary according to installation of optical modules or copper modules.) Safety certification Manufacturing certification

4.27.8 S5731-H48HB4XZ (02354QXB)

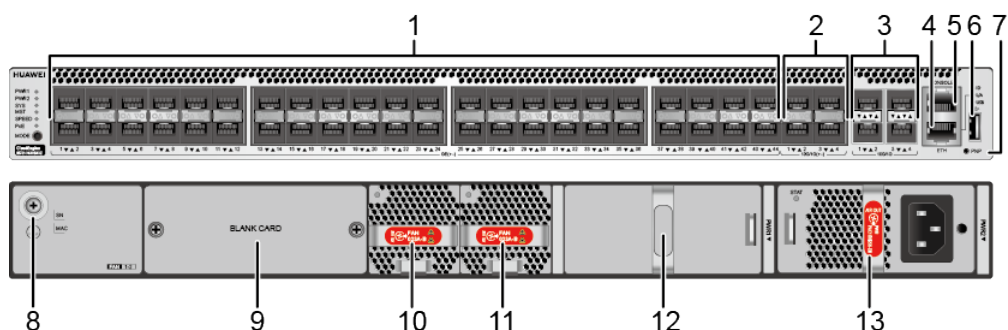
Overview

Table 4-1436 Basic information about the S5731-H48HB4XZ

Item	Details
Description	S5731-H48HB4XZ(44*Hybrid GE SFP ports, 4*Hybrid 10GE SFP+ ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, without power module)
Part Number	02354QXB
Model	S5731-H48HB4XZ
First supported version	V200R021C10SPC500

Components

Figure 4-559 S5731-H48HB4XZ appearance



1	<p>Forty-four FE/GE hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, ports numbered GE1 to GE8 and GE25 to GE44 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	2	<p>Four 10GE SFP+ hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>
3	Four 10GE SFP+ optical ports	4	One ETH management port
5	One console port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p> <p>Two OT grounding holes are provided on the side of the switch. If two OT terminals are required for grounding, you can purchase the two OT terminals separately.</p>
9	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (02312URW) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions) <p>If the rate of an port is set to 2.5 Gbit/s, the rear card cannot be used.</p>	10	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

<p>1 1</p>	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	<p>1 2</p>	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust))
<p>1 3</p>	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) 	<p>-</p>	<p>-</p>

Ports

Table 4-1437 Ports on the S5731-H48HB4XZ

Port	Connector Type	Description	Available Components
100/1000BASE-X hybrid optical-electrical port	SFP	<p>A 100/1000BASE-X hybrid optical-electrical port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, ports numbered GE1 to GE8 and GE25 to GE44 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• GE SFP Hybrid Modules• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)• 2.5GE eSFP Hybrid Modules (supported in V200R023C00 and later versions)• Hybrid cable 2.0

Port	Connector Type	Description	Available Components
10GE SFP+ hybrid optical-electrical port	SFP+	<p>A 10GE SFP+ hybrid optical-electrical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s, 2.5 Gbit/s, or 10 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• GE SFP Hybrid Modules• 10GE SFP+ Hybrid Modules• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)• 2.5GE eSFP Hybrid Modules

Port	Connector Type	Description	Available Components
			<p>(supported in V200R023C00 and later versions)</p> <ul style="list-style-type: none">• Hybrid cable 2.0
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

The S5731-H48HB4XZ has the same types of indicators as the S5731-H24HB4XZ. For details, see the S5731-H24HB4XZ.

Power Supply System

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1438 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	795 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 26 ● 802.3bt (60 W per port): 13 ● 802.3bt (90 W per port): 8
1000 W AC (110 V)	–	700 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 45 ● 802.3at (30 W per port): 23 ● 802.3bt (60 W per port): 11 ● 802.3bt (90 W per port): 7
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1745 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 29 ● 802.3bt (90 W per port): 19
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1555 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 25 ● 802.3bt (90 W per port): 17
600 W AC (220 V)	–	415 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 26 ● 802.3at (30 W per port): 13 ● 802.3bt (60 W per port): 6 ● 802.3bt (90 W per port): 4

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (110 V)	–	130 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 4 ● 802.3bt (60 W per port): 2 ● 802.3bt (90 W per port): 1
600 W AC (220 V)	600 W AC (220 V)	985 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 32 ● 802.3bt (60 W per port): 16 ● 802.3bt (90 W per port): 10
600 W AC (110 V)	600 W AC (110 V)	415 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 26 ● 802.3at (30 W per port): 13 ● 802.3bt (60 W per port): 6 ● 802.3bt (90 W per port): 4
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1365 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 45 ● 802.3bt (60 W per port): 22 ● 802.3bt (90 W per port): 15

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

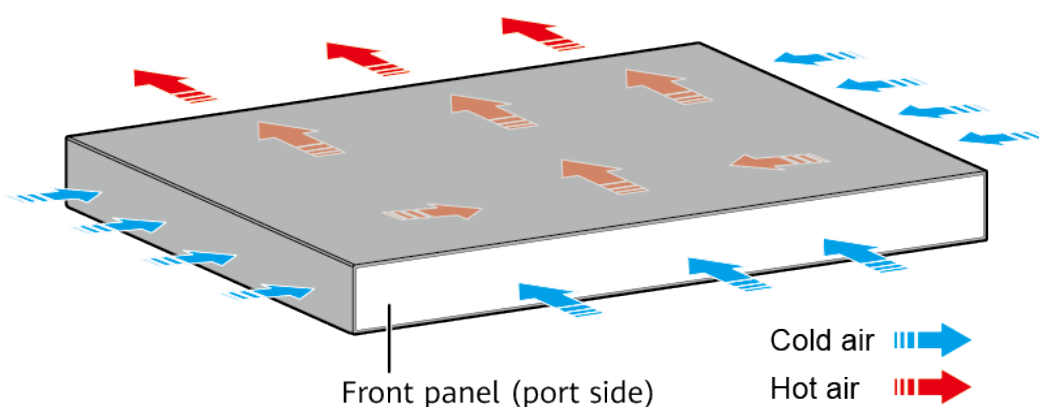
When a hybrid optical-electrical port is used for PoE power supply, the power supply capability and distance vary according to hybrid cables with different cable diameters. You can use the [Central Switch-to-RU Cable Length Calculation Tool](#) to calculate the power supply distance of the hybrid cable in different scenarios.

NOTE

- The hybrid switch uses hybrid cables to connect to and supply power to APs or remote units of specific models. (For details about the AP models to which hybrid cables can supply power, see the WLAN AP product documentation. The remote unit that supports hybrid cables is S5731-L4P2HW-RUA, S5731S-L4P2HW-RUA, S5731-L4P2HT-RUA, S5731S-L4P2HT-RUA, S5731-L8P2HT-RUA, and S5731S-L8P2HT-RUA.)
- The hybrid switch cannot be connected to devices other than remote units or APs using hybrid cables.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1439 Technical specifications of the S5731-H48HB4XZ

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U

Item	Specification
Weight without packaging [kg(lb)]	6.16 kg (13.58 lb)
Weight with packaging [kg(lb)]	7.96 kg (17.55 lb)
Typical power consumption [W]	118 W
Typical heat dissipation [BTU/hour]	402.63 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 151 W (without cards) Full PoE load: 1927 W (PoE: 1745 W, without cards)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 515.23 (without cards) Full PoE load: 6575.12 (without cards)
Static power consumption [W]	66 W
MTBF [years]	53.82 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Dual-AC 600 W, 70% load: 57.77 dBA Dual-AC 1000 W, 70% load: 63.78 dBA Dual-DC 1000 W, 70% load: 62.38 dBA Dual-AC 600 W, 100% load: 63.78 dBA Dual-AC 1000 W, 100% load: 68.07 dBA Dual-DC 1000 W, 100% load: 66.26 dBA
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.51 ft.)

Item	Specification
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none">• The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year.• The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours.• The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none">• AC input: 100 V AC to 240 V AC; 50/60 Hz• High-voltage DC input: 240 V DC• DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode ● Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Supported

Item	Specification
Certification	EMC certification (The EMC radiated emission complies with standards requirements, although it may vary according to installation of optical modules or copper modules.) Safety certification Manufacturing certification

4.27.9 S5731-H48HB4XZ (02354QXB-001)

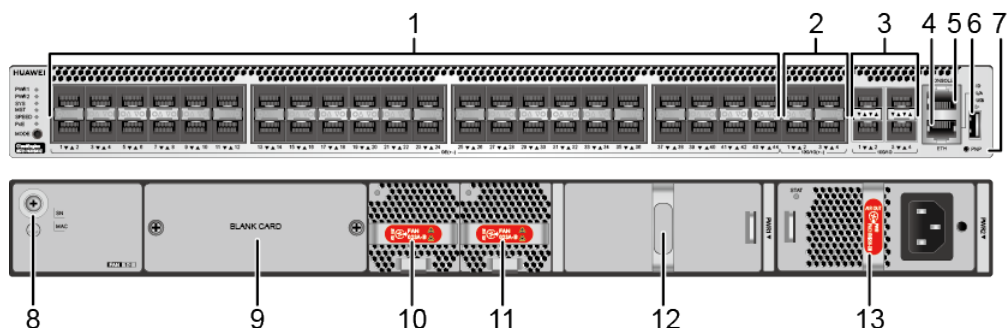
Overview

Table 4-1440 Basic information about the S5731-H48HB4XZ

Item	Details
Description	S5731-H48HB4XZ(44*Hybrid GE SFP ports, 4*Hybrid 10GE SFP+ ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, without power module)
Part Number	02354QXB-001
Model	S5731-H48HB4XZ
First supported version	V200R021C10SPC600

Components

Figure 4-560 S5731-H48HB4XZ appearance



1	<p>Forty-four FE/GE hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, ports numbered GE1 to GE8 and GE25 to GE44 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	2	<p>Four 10GE SFP+ hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>
3	Four 10GE SFP+ optical ports	4	One ETH management port
5	One console port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p> <p>Two OT grounding holes are provided on the side of the switch. If two OT terminals are required for grounding, you can purchase the two OT terminals separately.</p>
9	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (02312URW) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions) <p>If the rate of an port is set to 2.5 Gbit/s, the rear card cannot be used.</p>	10	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

<p>1 1</p>	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	<p>1 2</p>	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust))
<p>1 3</p>	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) 	<p>-</p>	<p>-</p>

Ports

Table 4-1441 Ports on the S5731-H48HB4XZ

Port	Connector Type	Description	Available Components
100/1000BASE-X hybrid optical-electrical port	SFP	<p>A 100/1000BASE-X hybrid optical-electrical port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, ports numbered GE1 to GE8 and GE25 to GE44 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• GE SFP Hybrid Modules• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)• 2.5GE eSFP Hybrid Modules (supported in V200R023C00 and later versions)• Hybrid cable 2.0

Port	Connector Type	Description	Available Components
<p>10GE SFP+ hybrid optical-electrical port</p>	<p>SFP+</p>	<p>A 10GE SFP+ hybrid optical-electrical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s, 2.5 Gbit/s, or 10 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● GE SFP Hybrid Modules ● 10GE SFP+ Hybrid Modules ● 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions) ● 2.5GE eSFP Hybrid Modules

Port	Connector Type	Description	Available Components
			<p>(supported in V200R023C00 and later versions)</p> <ul style="list-style-type: none"> Hybrid cable 2.0
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> GE eSFP optical modules GE-CWDM eSFP optical modules GE-DWDM eSFP optical modules GE SFP copper module 10GE SFP+ optical modules (OSXD22N00 not supported) 10GE-CWDM SFP+ optical modules 10GE-DWDM SFP+ optical modules 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables 3 m and 10 m SFP+ AOC cables 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

The S5731-H48HB4XZ has the same types of indicators as the S5731-H24HB4XZ. For details, see the S5731-H24HB4XZ.

Power Supply System

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1442 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	795 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 26 ● 802.3bt (60 W per port): 13 ● 802.3bt (90 W per port): 8
1000 W AC (110 V)	–	700 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 45 ● 802.3at (30 W per port): 23 ● 802.3bt (60 W per port): 11 ● 802.3bt (90 W per port): 7
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1745 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 29 ● 802.3bt (90 W per port): 19
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1555 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 25 ● 802.3bt (90 W per port): 17
600 W AC (220 V)	–	415 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 26 ● 802.3at (30 W per port): 13 ● 802.3bt (60 W per port): 6 ● 802.3bt (90 W per port): 4

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (110 V)	–	130 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 8 • 802.3at (30 W per port): 4 • 802.3bt (60 W per port): 2 • 802.3bt (90 W per port): 1
600 W AC (220 V)	600 W AC (220 V)	985 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 32 • 802.3bt (60 W per port): 16 • 802.3bt (90 W per port): 10
600 W AC (110 V)	600 W AC (110 V)	415 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 26 • 802.3at (30 W per port): 13 • 802.3bt (60 W per port): 6 • 802.3bt (90 W per port): 4
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1365 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 45 • 802.3bt (60 W per port): 22 • 802.3bt (90 W per port): 15

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

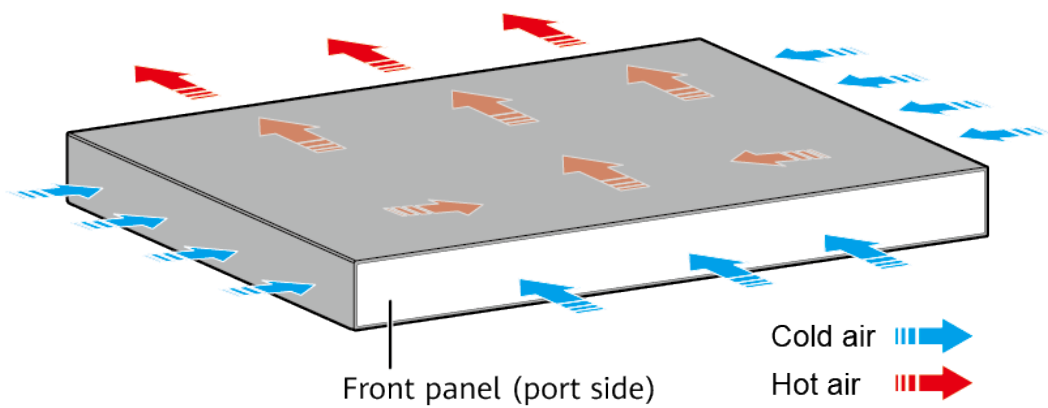
When a hybrid optical-electrical port is used for PoE power supply, the power supply capability and distance vary according to hybrid cables with different cable diameters. You can use the [Central Switch-to-RU Cable Length Calculation Tool](#) to calculate the power supply distance of the hybrid cable in different scenarios.

NOTE

- The hybrid switch uses hybrid cables to connect to and supply power to APs or remote units of specific models. (For details about the AP models to which hybrid cables can supply power, see the WLAN AP product documentation. The remote unit that supports hybrid cables is S5731-L4P2HW-RUA, S5731S-L4P2HW-RUA, S5731-L4P2HT-RUA, S5731S-L4P2HT-RUA, S5731-L8P2HT-RUA, and S5731S-L8P2HT-RUA.)
- The hybrid switch cannot be connected to devices other than remote units or APs using hybrid cables.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1443 Technical specifications of the S5731-H48HB4XZ

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U

Item	Specification
Weight without packaging [kg(lb)]	6.16 kg (13.58 lb)
Weight with packaging [kg(lb)]	7.96 kg (17.55 lb)
Typical power consumption [W]	118 W
Typical heat dissipation [BTU/hour]	402.63 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 151 W (without cards) Full PoE load: 1927 W (PoE: 1745 W, without cards)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 515.23 (without cards) Full PoE load: 6575.12 (without cards)
Static power consumption [W]	66 W
MTBF [years]	53.82 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Dual-AC 600 W, 70% load: 57.77 dBA Dual-AC 1000 W, 70% load: 63.78 dBA Dual-DC 1000 W, 70% load: 62.38 dBA Dual-AC 600 W, 100% load: 63.78 dBA Dual-AC 1000 W, 100% load: 68.07 dBA Dual-DC 1000 W, 100% load: 66.26 dBA
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)

Item	Specification
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode ● Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Supported

Item	Specification
Certification	EMC certification (The EMC radiated emission complies with standards requirements, although it may vary according to installation of optical modules or copper modules.) Safety certification Manufacturing certification

4.28 S5731S-H

4.28.1 S5731S-H24T4XC-A (02352YRG/02352YRG-001/02352YRG-003)

Version Mapping

[Table 4-1444](#) lists the mapping between the S5731S-H24T4XC-A chassis and software versions.

Table 4-1444 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H24T4XC-A	02352YRG: V200R019C00 and later versions 02352YRG-001: V200R020C10 and later versions 02352YRG-003: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.)

Appearance and Structure

Figure 4-561 S5731S-H24T4XC-A (02352YRG) appearance

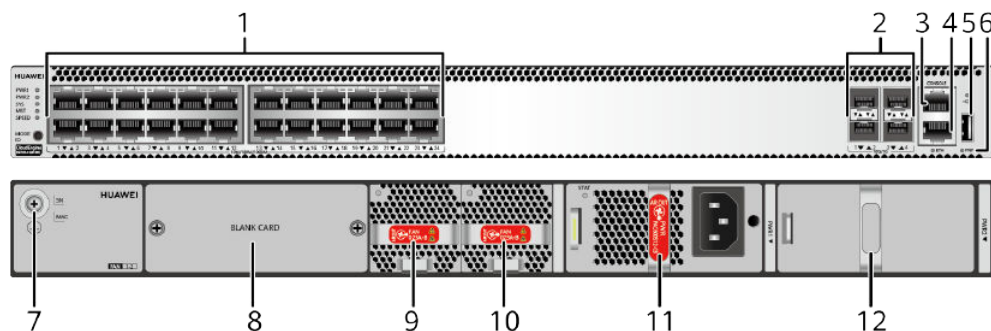
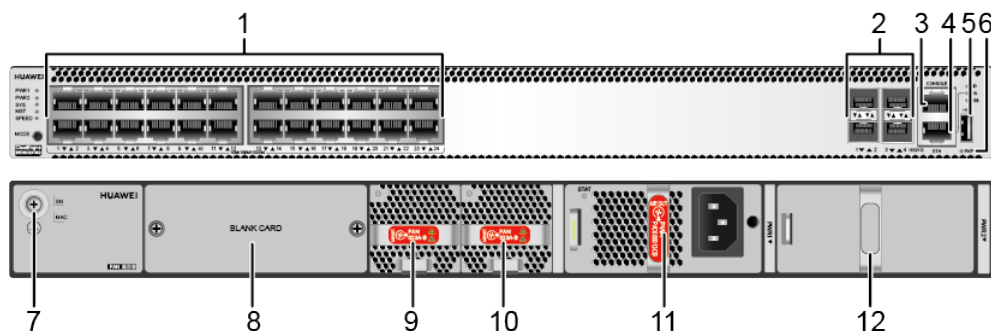


Figure 4-562 S5731S-H24T4XC-A (02352YRG-001/02352YRG-003) appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port

5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (02312URW) (applicable in V200R019C10 and later versions) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) (applicable in V200R021C01 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions)
9	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	10	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
11	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	12	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1445](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1445 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1446](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1446 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1447](#).

Table 4-1447 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1448](#) describes the attributes of an ETH management port.

Table 4-1448 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

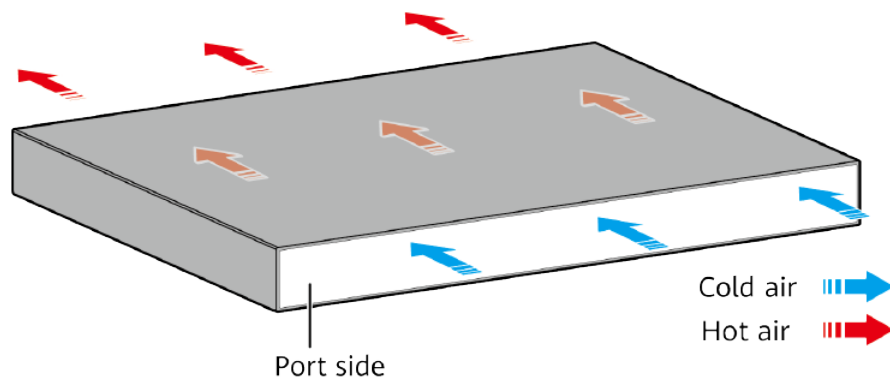
The S5731S-H24T4XC-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H24T4XC-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731S-H24T4XC-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1449](#) lists technical specifications of the S5731S-H24T4XC-A.

Table 4-1449 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.35 kg (20.61 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	114 W (without card)

Item	Description
Typical power consumption (30% of traffic load, tested according to ATIS standard)	88 W (without card)
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352YRG 02352YRG-001 02352YRG-003

4.28.2 S5731S-H48T4XC-A (02352YRF/02352YRF-003/02352YRF-005)

Version Mapping

[Table 4-1450](#) lists the mapping between the S5731S-H48T4XC-A chassis and software versions.

Table 4-1450 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H48T4XC-A	02352YRF: V200R019C00 and later versions 02352YRF-003: V200R020C10 and later versions 02352YRF-005: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.)

Appearance and Structure

Figure 4-563 S5731S-H48T4XC-A (02352YRF) appearance

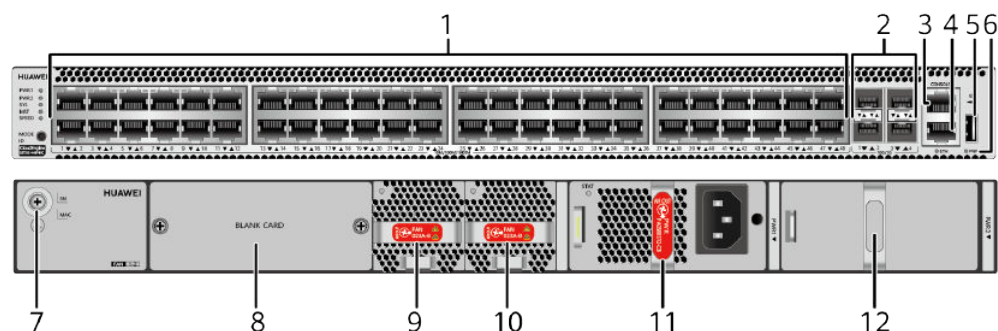
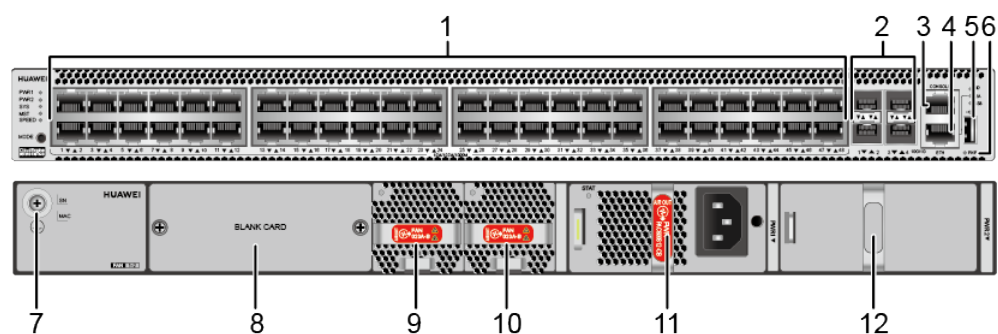


Figure 4-564 S5731S-H48T4XC-A (02352YRF-003/02352YRF-005) appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • E55D21X08T00 • E55D21Q02Q00 • S7X08000 (02312URW) (applicable in V200R019C10 and later versions) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) (applicable in V200R021C01 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions)

9	Fan module slot 1 NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))	10	Fan module slot 2 NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))
11	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	12	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1451](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1451 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1452](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1452 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1453](#).

Table 4-1453 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1454](#) describes the attributes of an ETH management port.

Table 4-1454 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

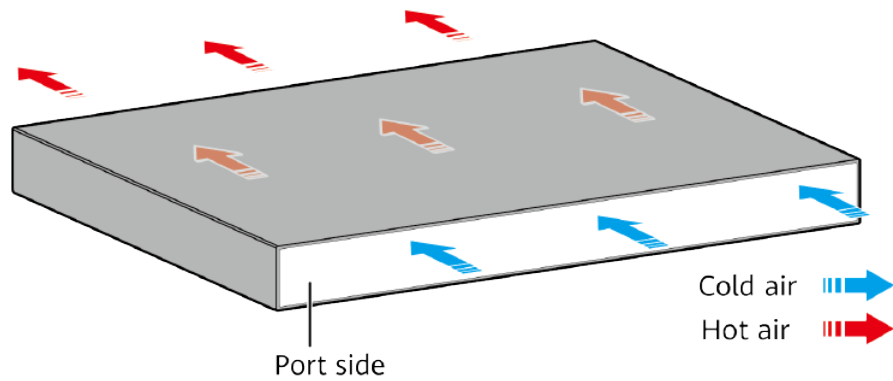
The S5731S-H48T4XC-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H48T4XC-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731S-H48T4XC-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1455](#) lists technical specifications of the S5731S-H48T4XC-A.

Table 4-1455 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)

Item	Description
Weight (with packaging)	9.5 kg (20.94 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W (without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	101 W (without card)
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352YRF 02352YRF-003 02352YRF-005

4.28.3 S5731S-H24T4S-A (02353DJE/ 02353DJE-001/02353DJE-003)

Version Mapping

[Table 4-1456](#) lists the mapping between the S5731S-H24T4S-A chassis and software versions.

Table 4-1456 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H24T4S-A	02353DJE: V200R019C00 and later versions 02353DJE-001: V200R020C10 and later versions 02353DJE-003: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.)

Appearance and Structure

Figure 4-565 S5731S-H24T4S-A (02353DJE) appearance

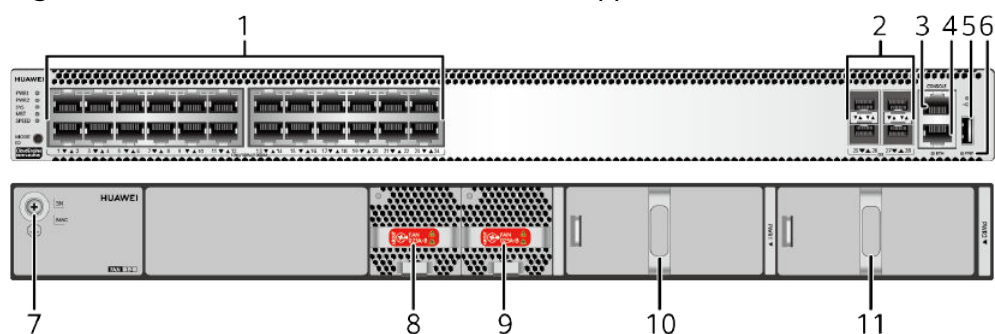
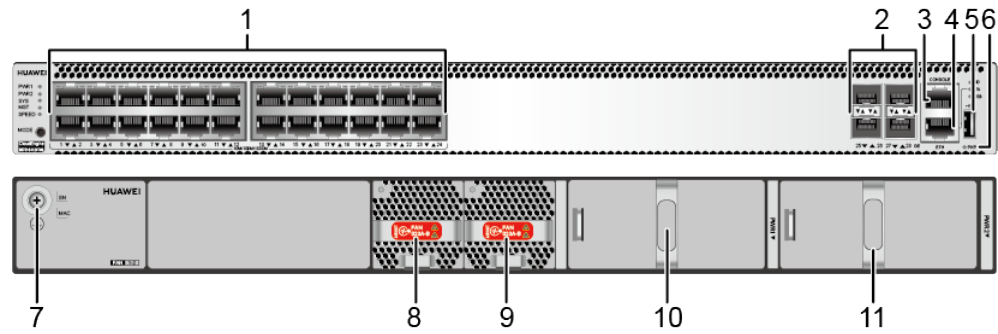


Figure 4-566 S5731S-H24T4S-A (02353DJE-001/02353DJE-003) appearance



1	Twenty-four 10/100/1000BASE-T ports	2 Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, OSXD22N00 not supported) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m SFP+ AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4 One ETH management port
5	One USB port	6 One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
9	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	10	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
11	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1457](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1457 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1458](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1458 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1459](#).

Table 4-1459 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1460](#) describes the attributes of an ETH management port.

Table 4-1460 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

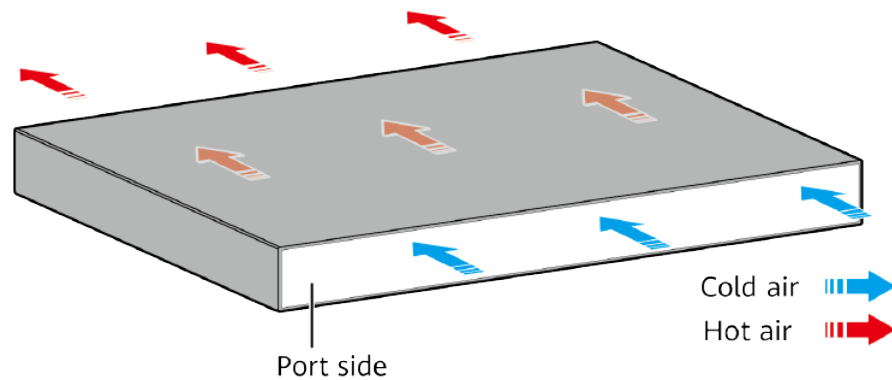
The S5731S-H24T4S-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H24T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731S-H24T4S-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1461](#) lists technical specifications of the S5731S-H24T4S-A.

Table 4-1461 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.35 kg (20.61 lb)
Stack ports	1000BASE-X ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	91 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	70 W

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	02353DJE 02353DJE-001 02353DJE-003

4.28.4 S5731S-H48T4S-A (02353DJG/02353DJG-003/02353DJG-005)

Version Mapping

[Table 4-1462](#) lists the mapping between the S5731S-H48T4S-A chassis and software versions.

Table 4-1462 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H48T4S-A	02353DJG: V200R019C00 and later versions 02353DJG-003: V200R020C10 and later versions 02353DJG-005: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.)

Appearance and Structure

Figure 4-567 S5731S-H48T4S-A (02353DJG) appearance

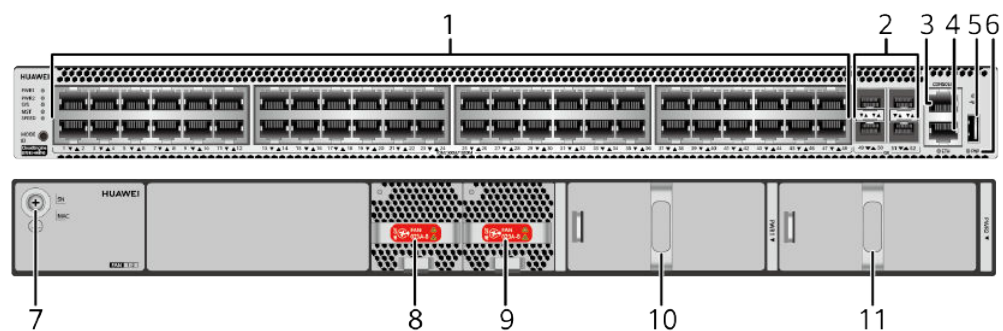
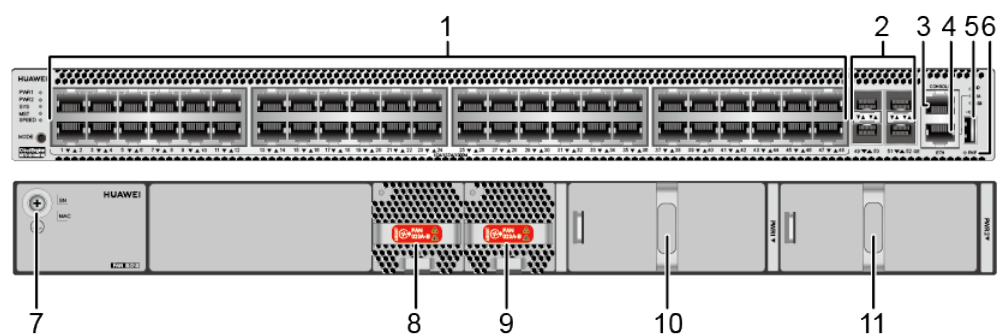


Figure 4-568 S5731S-H48T4S-A (02353DJG-003/02353DJG-005) appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, OSXD22N00 not supported) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m SFP+ AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

9	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	1 0	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
1 1	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1463](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1463 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1464](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1464 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1465](#).

Table 4-1465 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1466](#) describes the attributes of an ETH management port.

Table 4-1466 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

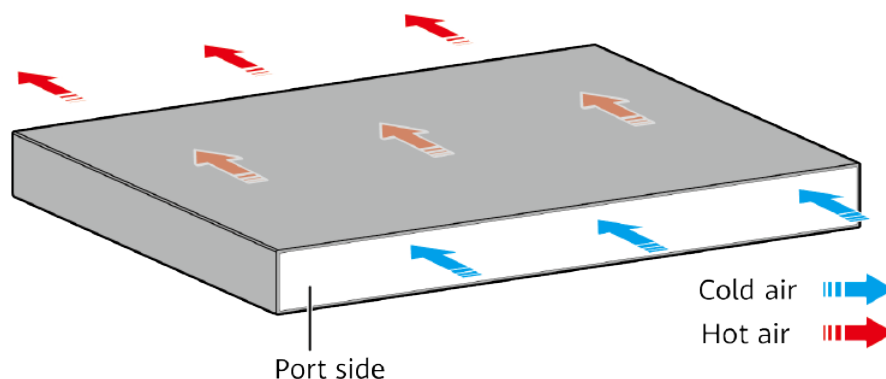
The S5731S-H48T4S-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H48T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731S-H48T4S-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1467](#) lists technical specifications of the S5731S-H48T4S-A.

Table 4-1467 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.5 kg (20.94 lb)
Stack ports	1000BASE-X ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	113 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	85 W

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02353DJG 02353DJG-003 02353DJG-005

4.28.5 S5731S-H24T4X-A (02353HVH/02353HVH-001/02353HVH-003)

Version Mapping

[Table 4-1468](#) lists the mapping between the S5731S-H24T4X-A chassis and software versions.

Table 4-1468 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H24T4X-A	02353HVH: V200R019C10 and later versions 02353HVH-001: V200R020C10 and later versions 02353HVH-003: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.)

Appearance and Structure

Figure 4-569 S5731S-H24T4X-A (02353HVH) appearance

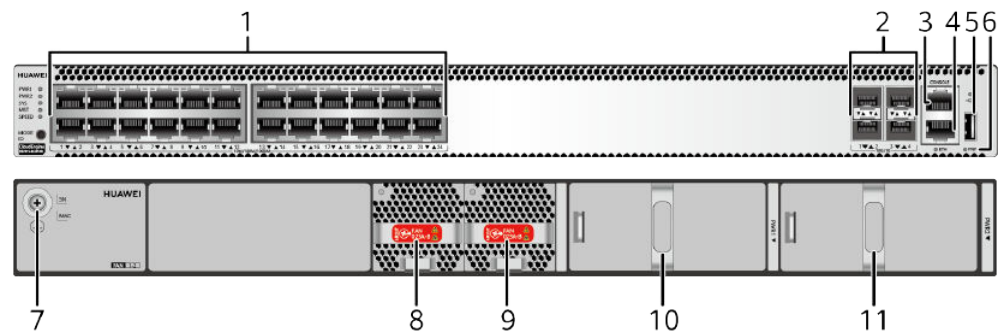
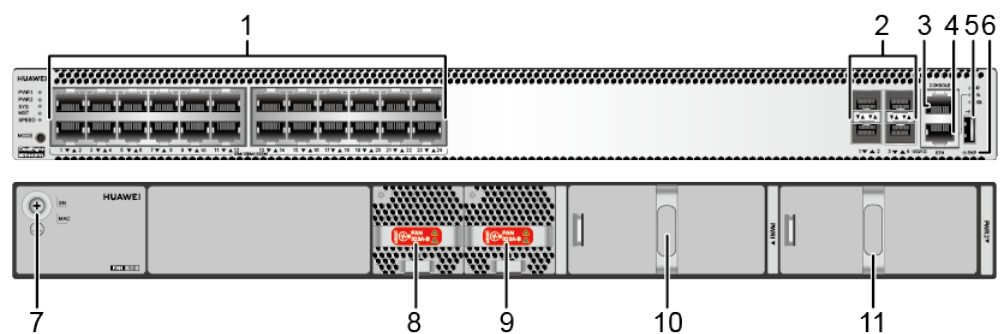


Figure 4-570 S5731S-H24T4X-A (02353HVH-001/02353HVH-003) appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

9	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	1 0	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
1 1	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1469](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1469 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1470](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1470 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1471](#).

Table 4-1471 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-1472** describes the attributes of an ETH management port.

Table 4-1472 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

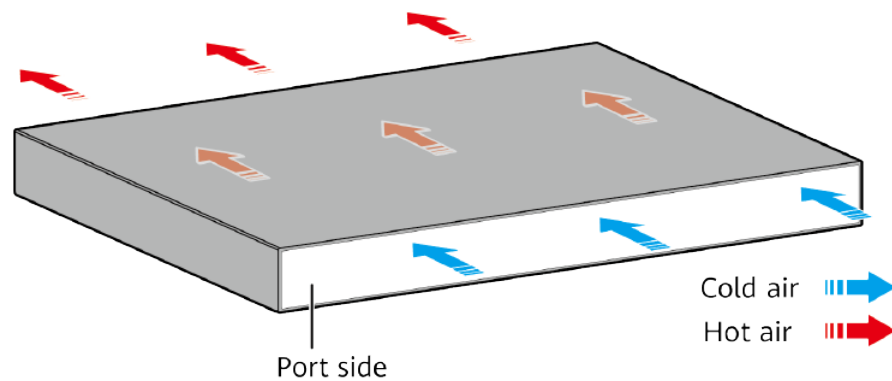
The S5731S-H24T4X-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H24T4X-A does not have a PoE mode indicator. For details, see **Indicator Description**.

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731S-H24T4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1473](#) lists technical specifications of the S5731S-H24T4X-A.

Table 4-1473 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> ● Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode ● Using DC power modules: ±2 kV in differential mode, ±4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.35 kg (20.61 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	114 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	88 W

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	02353HVH 02353HVH-001 02353HVH-003

4.28.6 S5731S-H48T4X-A (02353HVJ/02353HVJ-003/02353HVJ-005)

Version Mapping

[Table 4-1474](#) lists the mapping between the S5731S-H48T4X-A chassis and software versions.

Table 4-1474 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H48T4X-A	02353HVJ: V200R019C10 and later versions 02353HVJ-003: V200R020C10 and later versions 02353HVJ-005: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.)

Appearance and Structure

Figure 4-571 S5731S-H48T4X-A (02353HVJ) appearance

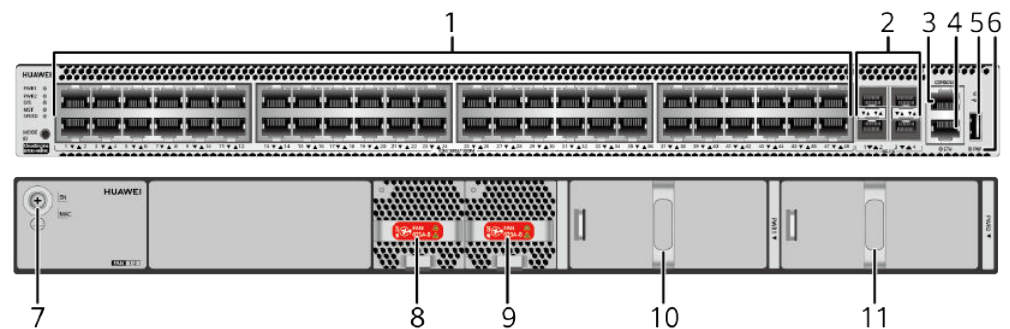
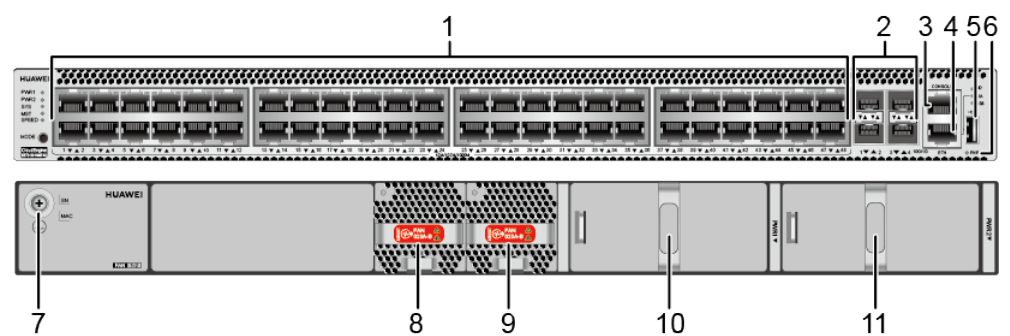


Figure 4-572 S5731S-H48T4X-A (02353HVJ-003/02353HVJ-005) appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

9	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	1 0	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
1 1	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1475](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1475 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1476](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1476 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1477](#).

Table 4-1477 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1478](#) describes the attributes of an ETH management port.

Table 4-1478 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

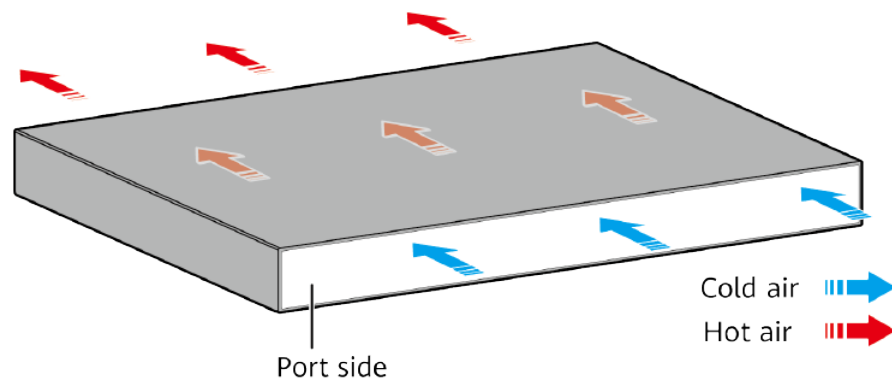
The S5731S-H48T4X-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H48T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5731S-H48T4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1479](#) lists technical specifications of the S5731S-H48T4X-A.

Table 4-1479 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> ● Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode ● Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.5 kg (20.94 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	101 W

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353HVJ 02353HVJ-003 02353HVJ-005

4.28.7 S5731S-H24HB4XZ-A (02354QXE)

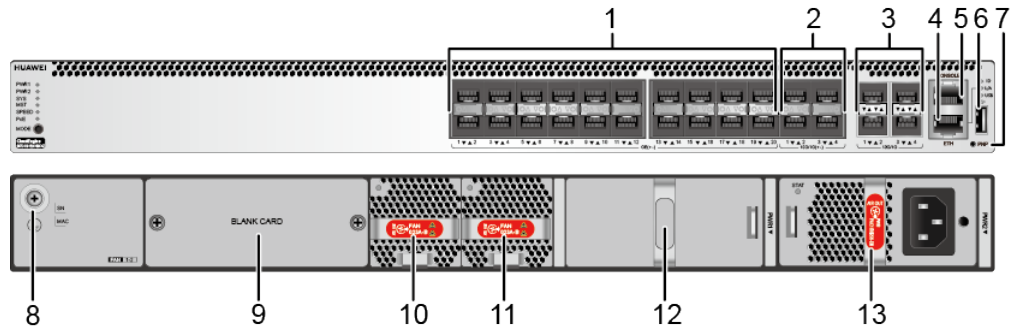
Overview

Table 4-1480 Basic information about the S5731S-H24HB4XZ-A

Item	Details
Description	S5731S-H24HB4XZ Bundle(20*Hybrid GE SFP ports, 4*Hybrid 10GE SFP+ ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*AC power)
Part Number	02354QXE
Model	S5731S-H24HB4XZ-A
First supported version	V200R021C10SPC500

Components

Figure 4-573 S5731S-H24HB4XZ-A appearance



1	<p>Twenty 100/1000BASE-X hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, 100/1000BASE-X hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	2	<p>Four 10GE SFP+ hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>
3	Four 10GE SFP+ optical ports	4	One ETH management port
5	One console port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p> <p>Two OT grounding holes are provided on the side of the switch. If two OT terminals are required for grounding, you can purchase the two OT terminals separately.</p>

9	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (02312URW) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions) <p>If the rate of an port is set to 2.5 Gbit/s, the rear card cannot be used.</p>	1 0	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
1 1	<p>Fan module slot 2</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	1 2	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust))

1 3	Power module slot 2	-	-
<p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) 			

Ports

Table 4-1481 Ports on the S5731S-H24HB4XZ-A

Port	Connector Type	Description	Available Components
100/1000BASE-X hybrid optical-electrical port	SFP	<p>A 100/1000BASE-X hybrid optical-electrical port can send and receive data at 100 Mbit/s or 1000 Mbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 100/1000BASE-X hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• GE SFP Hybrid Modules• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)• 2.5GE eSFP Hybrid Modules (supported in V200R023C00 and later versions)• Hybrid cable 2.0

Port	Connector Type	Description	Available Components
10GE SFP+ hybrid optical-electrical port	SFP+	<p>A 10GE SFP+ hybrid optical-electrical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s, 2.5 Gbit/s, or 10 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • GE SFP Hybrid Modules • 10GE SFP+ Hybrid Modules • 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions) • 2.5GE eSFP Hybrid Modules

Port	Connector Type	Description	Available Components
			<p>(supported in V200R023C00 and later versions)</p> <ul style="list-style-type: none"> • Hybrid cable 2.0
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-574 Indicators on the switch

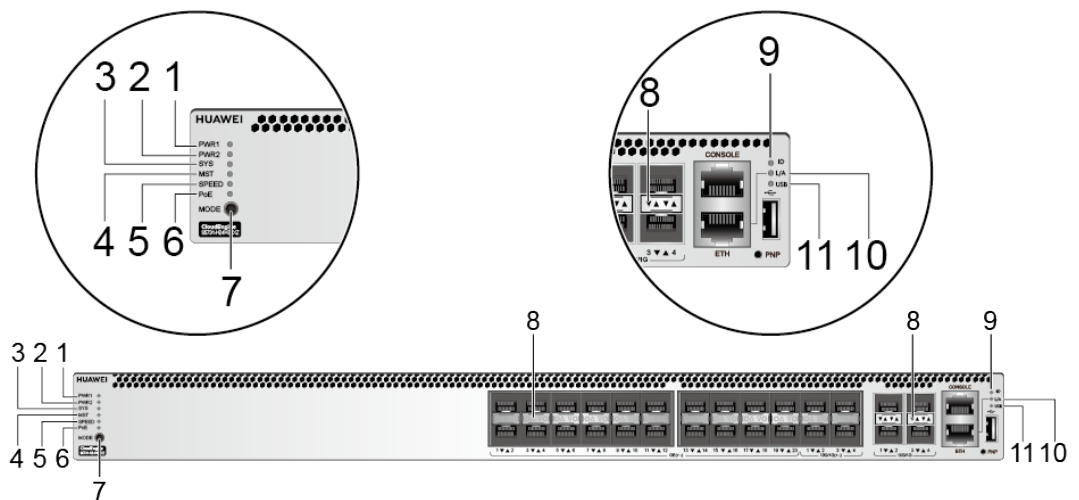


Table 4-1482 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none">• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch.• When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port.• When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port.• When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE</p> <p>Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none">• If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:<ul style="list-style-type: none">• If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.• If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.• If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
8	-	Hybrid optical-electrical port indicator	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see Table 4-1483 and Table 4-1484 .
		10GE optical port indicator	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1483 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-1484 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply System

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1485 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	-	818 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 13 • 802.3bt (90 W per port): 9

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (110 V)	–	723 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1768 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 19
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1578 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 17
600 W AC (220 V)	–	438 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 14 ● 802.3bt (60 W per port): 7 ● 802.3bt (90 W per port): 4
600 W AC (110 V)	–	153 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 9 ● 802.3at (30 W per port): 5 ● 802.3bt (60 W per port): 2 ● 802.3bt (90 W per port): 1

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	600 W AC (220 V)	1008 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 16 • 802.3bt (90 W per port): 11
600 W AC (110 V)	600 W AC (110 V)	438 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 14 • 802.3bt (60 W per port): 7 • 802.3bt (90 W per port): 4
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1388 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 23 • 802.3bt (90 W per port): 15

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

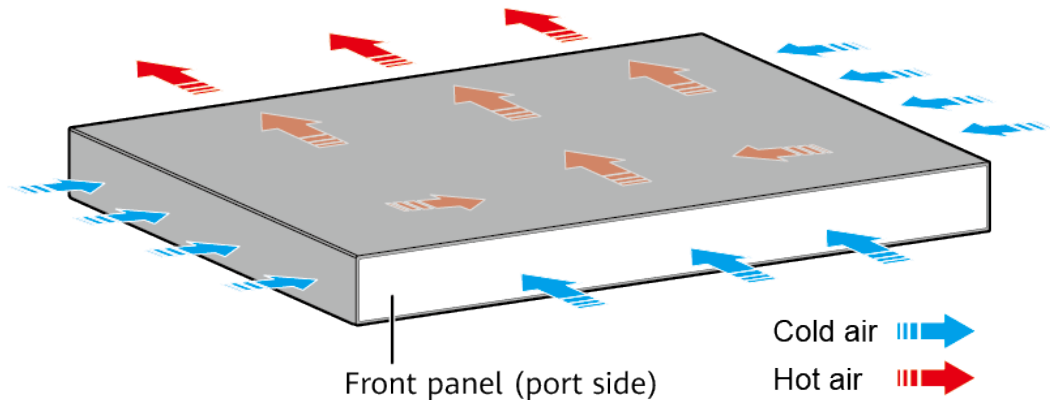
When a hybrid optical-electrical port is used for PoE power supply, the power supply capability and distance vary according to hybrid cables with different cable diameters. You can use the [Central Switch-to-RU Cable Length Calculation Tool](#) to calculate the power supply distance of the hybrid cable in different scenarios.

 **NOTE**

- The hybrid switch uses hybrid cables to connect to and supply power to APs or remote units of specific models. (For details about the AP models to which hybrid cables can supply power, see the WLAN AP product documentation. The remote unit that supports hybrid cables is S5731-L4P2HW-RUA, S5731S-L4P2HW-RUA, S5731-L4P2HT-RUA, S5731S-L4P2HT-RUA, S5731-L8P2HT-RUA, and S5731S-L8P2HT-RUA.)
- The hybrid switch cannot be connected to devices other than remote units or APs using hybrid cables.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1486 Technical specifications of the S5731S-H24HB4XZ-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	6.6 kg (14.55 lb)
Weight with packaging [kg(lb)]	8.4 kg (18.52 lb)
Typical power consumption [W]	87 W
Typical heat dissipation [BTU/hour]	296.85 BTU/hour

Item	Specification
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 127 W (without cards) Full PoE load: 1927 W (PoE: 1768 W, without cards)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 433.34 (without cards) Full PoE load: 6575.12 (without cards)
Static power consumption [W]	66 W
MTBF [years]	53.82 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Dual-AC 600 W, 70% load: 57.77 dBA Dual-AC 1000 W, 70% load: 63.78 dBA Dual-DC 1000 W, 70% load: 62.38 dBA Dual-AC 600 W, 100% load: 63.78 dBA Dual-AC 1000 W, 100% load: 68.07 dBA Dual-DC 1000 W, 100% load: 66.26 dBA
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.51 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none">• The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year.• The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours.• The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none">• AC input: 100 V AC to 240 V AC; 50/60 Hz• High-voltage DC input: 240 V DC• DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode ● Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Supported

Item	Specification
Certification	EMC certification (The EMC radiated emission complies with standards requirements, although it may vary according to installation of optical modules or copper modules.) Safety certification Manufacturing certification

4.28.8 S5731S-H24HB4XZ-A (02354QXE-001)

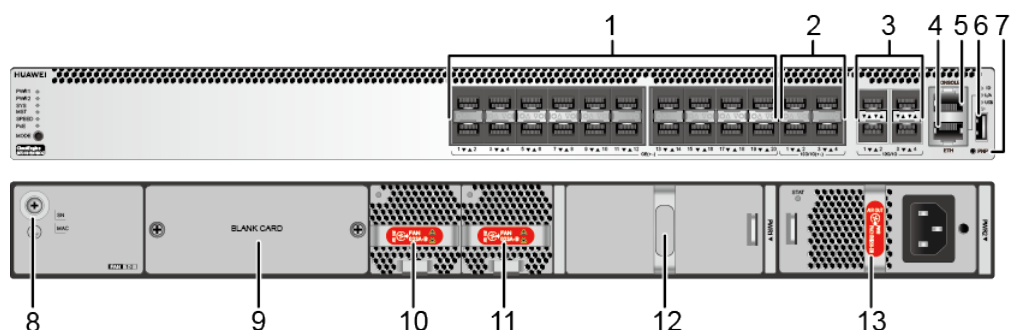
Overview

Table 4-1487 Basic information about the S5731S-H24HB4XZ-A

Item	Details
Description	S5731S-H24HB4XZ Bundle(20*Hybrid GE SFP ports, 4*Hybrid 10GE SFP+ ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*AC power)
Part Number	02354QXE-001
Model	S5731S-H24HB4XZ-A
First supported version	V200R021C10SPC600

Components

Figure 4-575 S5731S-H24HB4XZ-A appearance



1	<p>Twenty 100/1000BASE-X hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, 100/1000BASE-X hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	2	<p>Four 10GE SFP+ hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>
3	Four 10GE SFP+ optical ports	4	One ETH management port
5	One console port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p> <p>Two OT grounding holes are provided on the side of the switch. If two OT terminals are required for grounding, you can purchase the two OT terminals separately.</p>
9	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (02312URW) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions) <p>If the rate of an port is set to 2.5 Gbit/s, the rear card cannot be used.</p>	10	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

<p>1 1</p>	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	<p>1 2</p>	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust))
<p>1 3</p>	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) 	<p>-</p>	<p>-</p>

Ports

Table 4-1488 Ports on the S5731S-H24HB4XZ-A

Port	Connector Type	Description	Available Components
100/1000BASE-X hybrid optical-electrical port	SFP	<p>A 100/1000BASE-X hybrid optical-electrical port can send and receive data at 100 Mbit/s or 1000 Mbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 100/1000BASE-X hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• GE SFP Hybrid Modules• 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions)• 2.5GE eSFP Hybrid Modules (supported in V200R023C00 and later versions)• Hybrid cable 2.0

Port	Connector Type	Description	Available Components
<p>10GE SFP+ hybrid optical-electrical port</p>	<p>SFP+</p>	<p>A 10GE SFP+ hybrid optical-electrical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s, 2.5 Gbit/s, or 10 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● GE SFP Hybrid Modules ● 10GE SFP+ Hybrid Modules ● 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions) ● 2.5GE eSFP Hybrid Modules

Port	Connector Type	Description	Available Components
			<p>(supported in V200R023C00 and later versions)</p> <ul style="list-style-type: none"> • Hybrid cable 2.0
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-576 Indicators on the switch

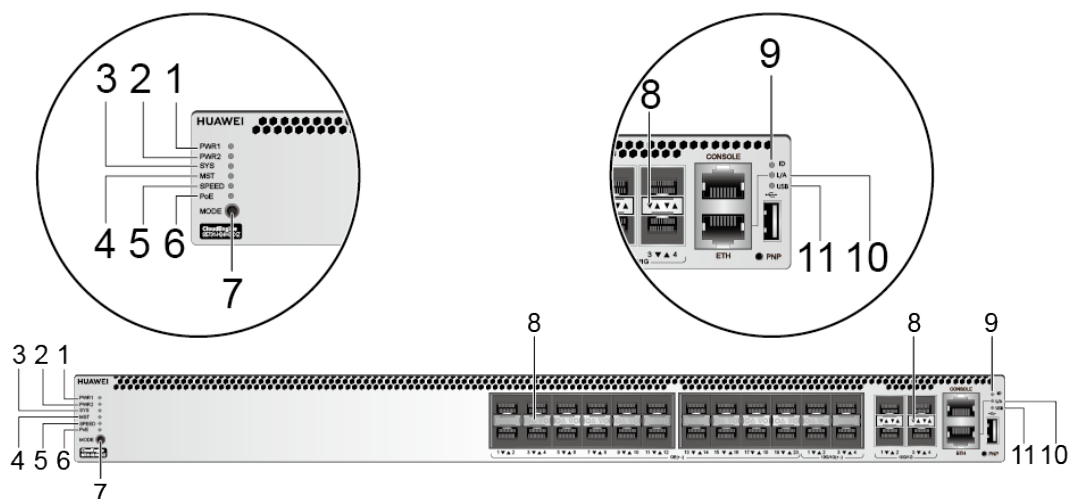


Table 4-1489 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
8	-	Hybrid optical-electrical port indicator	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see Table 4-1490 and Table 4-1491 .
		10GE optical port indicator	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1490 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-1491 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply System

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1492 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	-	818 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 13 ● 802.3bt (90 W per port): 9

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (110 V)	–	723 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1768 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 19
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1578 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 17
600 W AC (220 V)	–	438 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 14 ● 802.3bt (60 W per port): 7 ● 802.3bt (90 W per port): 4
600 W AC (110 V)	–	153 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 9 ● 802.3at (30 W per port): 5 ● 802.3bt (60 W per port): 2 ● 802.3bt (90 W per port): 1

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	600 W AC (220 V)	1008 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 16 • 802.3bt (90 W per port): 11
600 W AC (110 V)	600 W AC (110 V)	438 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 14 • 802.3bt (60 W per port): 7 • 802.3bt (90 W per port): 4
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1388 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 23 • 802.3bt (90 W per port): 15

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

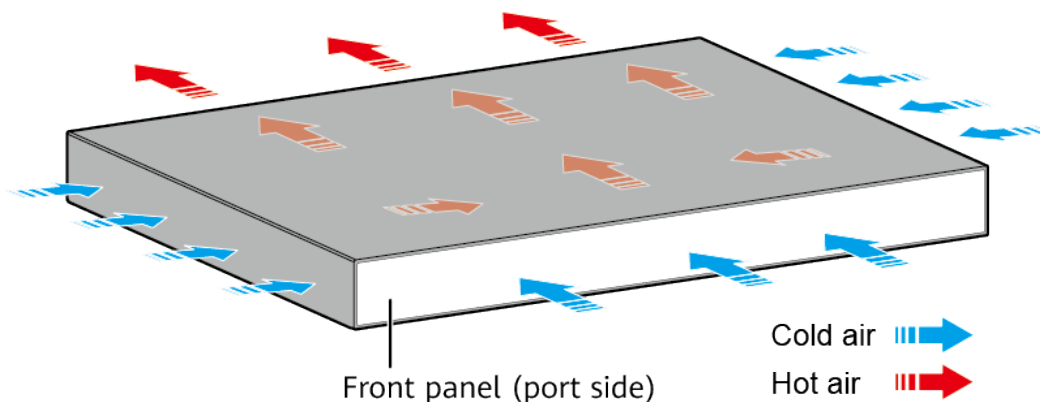
When a hybrid optical-electrical port is used for PoE power supply, the power supply capability and distance vary according to hybrid cables with different cable diameters. You can use the [Central Switch-to-RU Cable Length Calculation Tool](#) to calculate the power supply distance of the hybrid cable in different scenarios.

 **NOTE**

- The hybrid switch uses hybrid cables to connect to and supply power to APs or remote units of specific models. (For details about the AP models to which hybrid cables can supply power, see the WLAN AP product documentation. The remote unit that supports hybrid cables is S5731-L4P2HW-RUA, S5731S-L4P2HW-RUA, S5731-L4P2HT-RUA, S5731S-L4P2HT-RUA, S5731-L8P2HT-RUA, and S5731S-L8P2HT-RUA.)
- The hybrid switch cannot be connected to devices other than remote units or APs using hybrid cables.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1493 Technical specifications of the S5731S-H24HB4XZ-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	6.6 kg (14.55 lb)
Weight with packaging [kg(lb)]	8.4 kg (18.52 lb)
Typical power consumption [W]	87 W
Typical heat dissipation [BTU/hour]	296.85 BTU/hour

Item	Specification
Maximum power consumption [W]	<ul style="list-style-type: none"> • Without PoE: 127 W (without cards) • Full PoE load: 1927 W (PoE: 1768 W, without cards)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> • Without PoE: 433.34 (without cards) • Full PoE load: 6575.12 (without cards)
Static power consumption [W]	66 W
MTBF [years]	53.82 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Dual-AC 600 W, 70% load: 57.77 dBA Dual-AC 1000 W, 70% load: 63.78 dBA Dual-DC 1000 W, 70% load: 62.38 dBA Dual-AC 600 W, 100% load: 63.78 dBA Dual-AC 1000 W, 100% load: 68.07 dBA Dual-DC 1000 W, 100% load: 66.26 dBA
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode ● Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Supported

Item	Specification
Certification	EMC certification (The EMC radiated emission complies with standards requirements, although it may vary according to installation of optical modules or copper modules.) Safety certification Manufacturing certification

4.28.9 S5731S-H48HB4XZ-A (02354QXC)

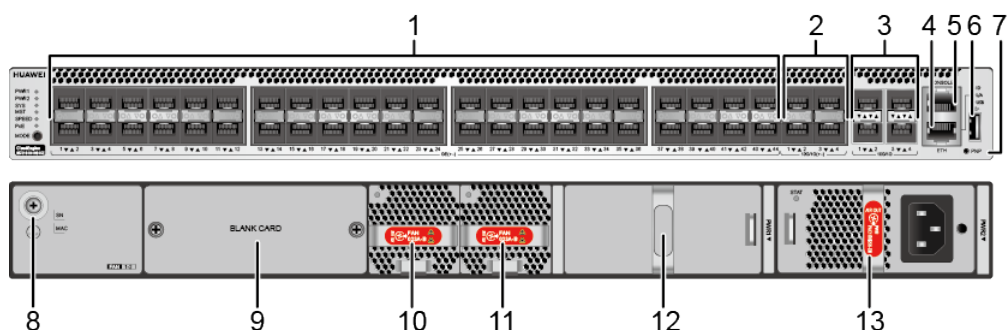
Overview

Table 4-1494 Basic information about the S5731S-H48HB4XZ-A

Item	Details
Description	S5731S-H48HB4XZ Bundle(44*Hybrid GE SFP ports, 4*Hybrid 10GE SFP+ ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*AC power)
Part Number	02354QXC
Model	S5731S-H48HB4XZ-A
First supported version	V200R021C10SPC500

Components

Figure 4-577 S5731S-H48HB4XZ-A appearance



1	<p>Forty-four FE/GE hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, ports numbered GE1 to GE8 and GE25 to GE44 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	2	<p>Four 10GE SFP+ hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>
3	Four 10GE SFP+ optical ports	4	One ETH management port
5	One console port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p> <p>Two OT grounding holes are provided on the side of the switch. If two OT terminals are required for grounding, you can purchase the two OT terminals separately.</p>
9	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (02312URW) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions) <p>If the rate of an port is set to 2.5 Gbit/s, the rear card cannot be used.</p>	10	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

<p>1 1</p>	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	<p>1 2</p>	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust))
<p>1 3</p>	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) 	<p>-</p>	<p>-</p>

Ports

Table 4-1495 Ports on the S5731S-H48HB4XZ-A

Port	Connector Type	Description	Available Components
100/1000BASE-X hybrid optical-electrical port	SFP	<p>A 100/1000BASE-X hybrid optical-electrical port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, ports numbered GE1 to GE8 and GE25 to GE44 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • GE SFP Hybrid Modules • 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions) • 2.5GE eSFP Hybrid Modules (supported in V200R023C00 and later versions) • Hybrid cable 2.0

Port	Connector Type	Description	Available Components
10GE SFP+ hybrid optical-electrical port	SFP+	<p>A 10GE SFP+ hybrid optical-electrical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s, 2.5 Gbit/s, or 10 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● GE SFP Hybrid Modules ● 10GE SFP+ Hybrid Modules ● 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions) ● 2.5GE eSFP Hybrid Modules

Port	Connector Type	Description	Available Components
			<p>(supported in V200R023C00 and later versions)</p> <ul style="list-style-type: none"> • Hybrid cable 2.0
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

The S5731S-H48HB4XZ-A has the same types of indicators as the S5731S-H24HB4XZ-A. For details, see the S5731S-H24HB4XZ-A.

Power Supply System

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1496 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	795 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 26 ● 802.3bt (60 W per port): 13 ● 802.3bt (90 W per port): 8
1000 W AC (110 V)	–	700 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 45 ● 802.3at (30 W per port): 23 ● 802.3bt (60 W per port): 11 ● 802.3bt (90 W per port): 7
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1745 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 29 ● 802.3bt (90 W per port): 19
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1555 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 25 ● 802.3bt (90 W per port): 17
600 W AC (220 V)	–	415 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 26 ● 802.3at (30 W per port): 13 ● 802.3bt (60 W per port): 6 ● 802.3bt (90 W per port): 4

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (110 V)	–	130 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 8 • 802.3at (30 W per port): 4 • 802.3bt (60 W per port): 2 • 802.3bt (90 W per port): 1
600 W AC (220 V)	600 W AC (220 V)	985 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 32 • 802.3bt (60 W per port): 16 • 802.3bt (90 W per port): 10
600 W AC (110 V)	600 W AC (110 V)	415 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 26 • 802.3at (30 W per port): 13 • 802.3bt (60 W per port): 6 • 802.3bt (90 W per port): 4
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1365 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 45 • 802.3bt (60 W per port): 22 • 802.3bt (90 W per port): 15

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

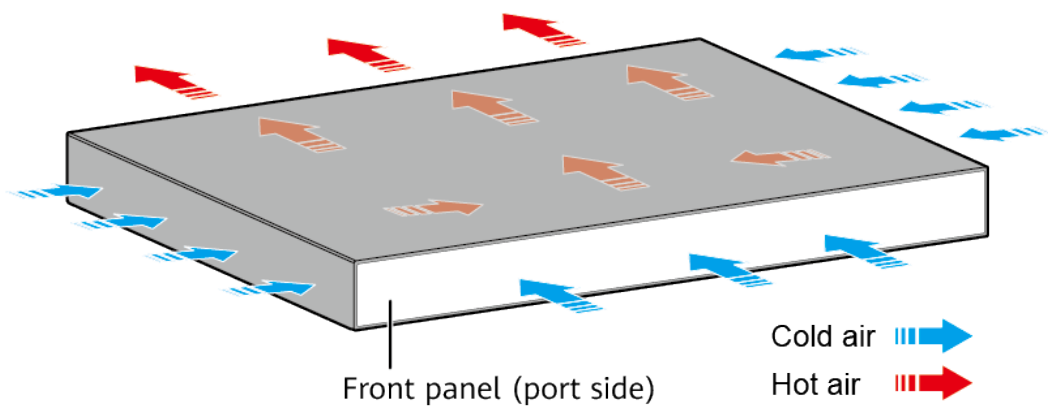
When a hybrid optical-electrical port is used for PoE power supply, the power supply capability and distance vary according to hybrid cables with different cable diameters. You can use the [Central Switch-to-RU Cable Length Calculation Tool](#) to calculate the power supply distance of the hybrid cable in different scenarios.

NOTE

- The hybrid switch uses hybrid cables to connect to and supply power to APs or remote units of specific models. (For details about the AP models to which hybrid cables can supply power, see the WLAN AP product documentation. The remote unit that supports hybrid cables is S5731-L4P2HW-RUA, S5731S-L4P2HW-RUA, S5731-L4P2HT-RUA, S5731S-L4P2HT-RUA, S5731-L8P2HT-RUA, and S5731S-L8P2HT-RUA.)
- The hybrid switch cannot be connected to devices other than remote units or APs using hybrid cables.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1497 Technical specifications of the S5731S-H48HB4XZ-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U

Item	Specification
Weight without packaging [kg(lb)]	7.06 kg (15.56 lb)
Weight with packaging [kg(lb)]	8.86 kg (19.53 lb)
Typical power consumption [W]	118 W
Typical heat dissipation [BTU/hour]	402.63 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 151 W (without cards) Full PoE load: 1927 W (PoE: 1745 W, without cards)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 515.23 (without cards) Full PoE load: 6575.12 (without cards)
Static power consumption [W]	66 W
MTBF [years]	53.82 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Dual-AC 600 W, 70% load: 57.77 dBA Dual-AC 1000 W, 70% load: 63.78 dBA Dual-DC 1000 W, 70% load: 62.38 dBA Dual-AC 600 W, 100% load: 63.78 dBA Dual-AC 1000 W, 100% load: 68.07 dBA Dual-DC 1000 W, 100% load: 66.26 dBA
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.51 ft.)

Item	Specification
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode ● Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Supported

Item	Specification
Certification	EMC certification (The EMC radiated emission complies with standards requirements, although it may vary according to installation of optical modules or copper modules.) Safety certification Manufacturing certification

4.28.10 S5731S-H48HB4XZ-A (02354QXC-001)

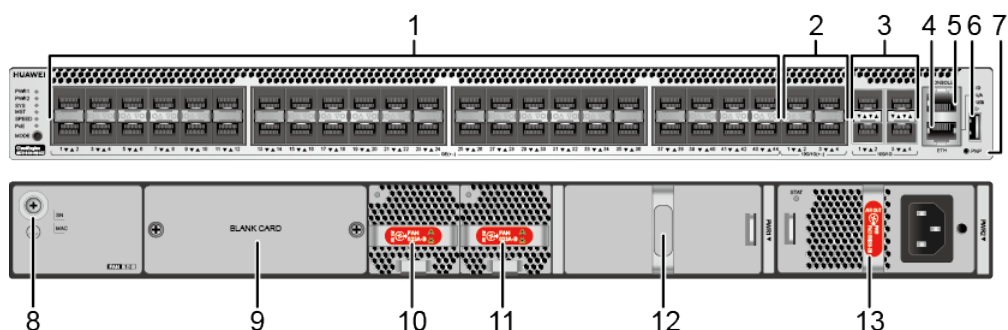
Overview

Table 4-1498 Basic information about the S5731S-H48HB4XZ-A

Item	Details
Description	S5731S-H48HB4XZ Bundle(44*Hybrid GE SFP ports, 4*Hybrid 10GE SFP+ ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*AC power)
Part Number	02354QXC-001
Model	S5731S-H48HB4XZ-A
First supported version	V200R021C10SPC600

Components

Figure 4-578 S5731S-H48HB4XZ-A appearance



1	<p>Forty-four FE/GE hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, ports numbered GE1 to GE8 and GE25 to GE44 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	2	<p>Four 10GE SFP+ hybrid optical-electrical ports (supporting PoE++)</p> <p>NOTE</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>
3	Four 10GE SFP+ optical ports	4	One ETH management port
5	One console port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p> <p>Two OT grounding holes are provided on the side of the switch. If two OT terminals are required for grounding, you can purchase the two OT terminals separately.</p>
9	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (02312URW) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • S7Q02001 (02313UBW) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions) <p>If the rate of an port is set to 2.5 Gbit/s, the rear card cannot be used.</p>	10	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>

<p>1 1</p>	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	<p>1 2</p>	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust))
<p>1 3</p>	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) 	<p>-</p>	<p>-</p>

Ports

Table 4-1499 Ports on the S5731S-H48HB4XZ-A

Port	Connector Type	Description	Available Components
100/1000BASE-X hybrid optical-electrical port	SFP	<p>A 100/1000BASE-X hybrid optical-electrical port can send and receive data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, ports numbered GE1 to GE8 and GE25 to GE44 can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● GE SFP Hybrid Modules ● 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions) ● 2.5GE eSFP Hybrid Modules (supported in V200R023C00 and later versions) ● Hybrid cable 2.0

Port	Connector Type	Description	Available Components
10GE SFP+ hybrid optical-electrical port	SFP+	<p>A 10GE SFP+ hybrid optical-electrical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s, 2.5 Gbit/s, or 10 Gbit/s. It can provide PoE power through hybrid cable.</p> <p>In V200R023C00 and later versions, 10GE SFP+ hybrid optical-electrical ports can be configured to work at 2.5 Gbit/s using the port mode 2.5ge command.</p>	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● GE SFP Hybrid Modules ● 10GE SFP+ Hybrid Modules ● 2.5GE eSFP Optical Modules (supported in V200R023C00 and later versions) ● 2.5GE eSFP Hybrid Modules

Port	Connector Type	Description	Available Components
			<p>(supported in V200R023C00 and later versions)</p> <ul style="list-style-type: none">• Hybrid cable 2.0
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

The S5731S-H48HB4XZ-A has the same types of indicators as the S5731S-H24HB4XZ-A. For details, see the S5731S-H24HB4XZ-A.

Power Supply System

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1500 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	795 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 26 ● 802.3bt (60 W per port): 13 ● 802.3bt (90 W per port): 8
1000 W AC (110 V)	–	700 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 45 ● 802.3at (30 W per port): 23 ● 802.3bt (60 W per port): 11 ● 802.3bt (90 W per port): 7
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1745 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 29 ● 802.3bt (90 W per port): 19
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1555 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 25 ● 802.3bt (90 W per port): 17
600 W AC (220 V)	–	415 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 26 ● 802.3at (30 W per port): 13 ● 802.3bt (60 W per port): 6 ● 802.3bt (90 W per port): 4

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (110 V)	–	130 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 8 • 802.3at (30 W per port): 4 • 802.3bt (60 W per port): 2 • 802.3bt (90 W per port): 1
600 W AC (220 V)	600 W AC (220 V)	985 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 32 • 802.3bt (60 W per port): 16 • 802.3bt (90 W per port): 10
600 W AC (110 V)	600 W AC (110 V)	415 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 26 • 802.3at (30 W per port): 13 • 802.3bt (60 W per port): 6 • 802.3bt (90 W per port): 4
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1365 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 45 • 802.3bt (60 W per port): 22 • 802.3bt (90 W per port): 15

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

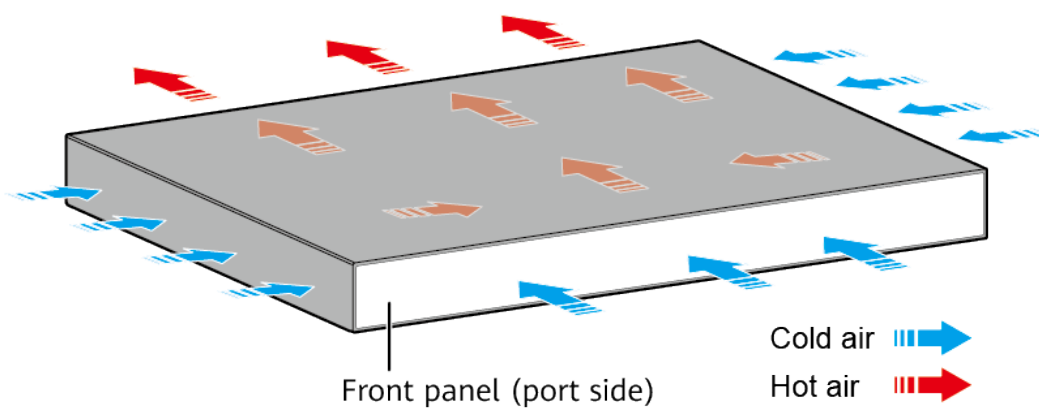
When a hybrid optical-electrical port is used for PoE power supply, the power supply capability and distance vary according to hybrid cables with different cable diameters. You can use the [Central Switch-to-RU Cable Length Calculation Tool](#) to calculate the power supply distance of the hybrid cable in different scenarios.

NOTE

- The hybrid switch uses hybrid cables to connect to and supply power to APs or remote units of specific models. (For details about the AP models to which hybrid cables can supply power, see the WLAN AP product documentation. The remote unit that supports hybrid cables is S5731-L4P2HW-RUA, S5731S-L4P2HW-RUA, S5731-L4P2HT-RUA, S5731S-L4P2HT-RUA, S5731-L8P2HT-RUA, and S5731S-L8P2HT-RUA.)
- The hybrid switch cannot be connected to devices other than remote units or APs using hybrid cables.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1501 Technical specifications of the S5731S-H48HB4XZ-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185 mm x 650 mm x 550 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U

Item	Specification
Weight without packaging [kg(lb)]	7.06 kg (15.56 lb)
Weight with packaging [kg(lb)]	8.86 kg (19.53 lb)
Typical power consumption [W]	118 W
Typical heat dissipation [BTU/hour]	402.63 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 151 W (without cards) Full PoE load: 1927 W (PoE: 1745 W, without cards)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 515.23 (without cards) Full PoE load: 6575.12 (without cards)
Static power consumption [W]	66 W
MTBF [years]	53.82 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Dual-AC 600 W, 70% load: 57.77 dBA Dual-AC 1000 W, 70% load: 63.78 dBA Dual-DC 1000 W, 70% load: 62.38 dBA Dual-AC 600 W, 100% load: 63.78 dBA Dual-AC 1000 W, 100% load: 68.07 dBA Dual-DC 1000 W, 100% load: 66.26 dBA
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)

Item	Specification
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC; 45–65 Hz ● High-voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> ● Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode ● Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Supported

Item	Specification
Certification	EMC certification (The EMC radiated emission complies with standards requirements, although it may vary according to installation of optical modules or copper modules.) Safety certification Manufacturing certification

4.29 S5732-H

4.29.1 S5732-H24S6Q (02353AJS/ 02353AJS-001/02353AJS-003/02353AJS-004/02353AJS-005)

Version Mapping

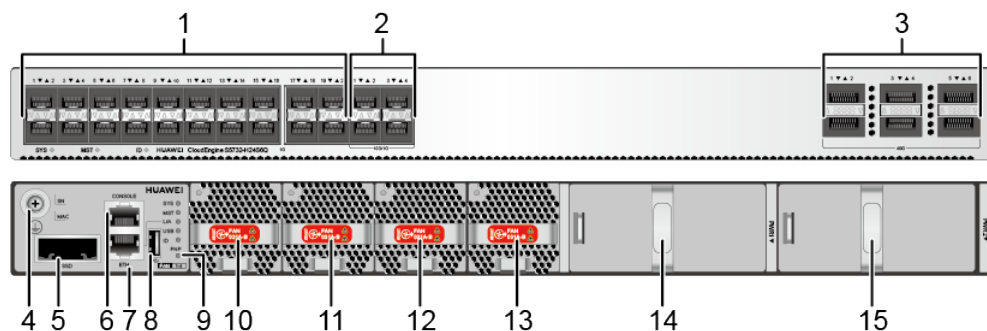
[Table 4-1502](#) lists the mapping between the S5732-H24S6Q chassis and software versions.

Table 4-1502 Version mapping

Series	Model	Software Version
S5732-H	S5732-H24S6Q	02353AJS: V200R019C00 and later versions 02353AJS-001: V200R020C10 and later versions 02353AJS-003: V200R021C10SPC500 and later versions (If V200R021C00SPC100 is used, install V200R021SPH011 or a later patch.) 02353AJS-004: V200R021C10SPC600 and later versions (If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.) 02353AJS-005: V200R021C10SPC600 and later versions (If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.) NOTE V200R021C01 is not supported. Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Appearance and Structure

Figure 4-579 S5732-H24S6Q appearance



1	Twenty 1000BASE-X ports Applicable modules: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables
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3	<p>Six 40GE/100GE QSFP+ optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • 1 m, 3 m, and 5 m QSFP+ to QSFP+ high-speed copper cables • 10 m QSFP+ to QSFP+ AOC cable • QSFP28 optical module (supported in V200R020C00 and later versions, with a license loaded) • 1 m QSFP28 to QSFP28 high-speed copper cable (supported in V200R020C00 and later versions, with a license loaded) • 10 m QSFP28 to QSFP28 AOC cable (supported in V200R020C00 and later versions, with a license loaded) • 2 m QSFP28 dedicated stack cable (supported in V200R020C10 and later versions) <p>NOTE</p> <p>A QSFP+ optical port cannot be split into four 10GE ports, regardless of whether the port uses a QSFP28 or QSFP+ optical module.</p> <p>By default, a QSFP+ optical port is a 40GE port. In V200R020C00 and later versions, a license can be loaded to increase the port rate to 100 Gbit/s. After the license is activated, run the assign port-type 100GE command and restart the switch to configure the port as a 100GE port.</p>	4	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
5	<p>SSD card slot</p> <p>NOTE</p> <p>This slot is reserved for future use.</p>	6	<p>One console port</p>
7	<p>One ETH management port</p>	8	<p>One USB port</p>

9	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	1 0	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>
1 1	<p>Fan module slot 2</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>	1 2	<p>Fan module slot 3</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>
1 3	<p>Fan module slot 4</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>	1 4	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module)
1 5	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) 	-	-

Port Description

1000BASE-X Ethernet Optical Port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission

speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1503](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1503 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1504](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1504 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

40GE QSFP+ optical port

A 40GE QSFP+ optical port sends and receives service traffic at 40 Gbit/s. [Table 4-1505](#) describes the attributes of a QSFP+ optical port.

Table 4-1505 Attributes of a QSFP+ optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1506](#).

Table 4-1506 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1507](#) describes the attributes of an ETH management port.

Table 4-1507 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to

the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-580 Indicators on the S5732-H24S6Q

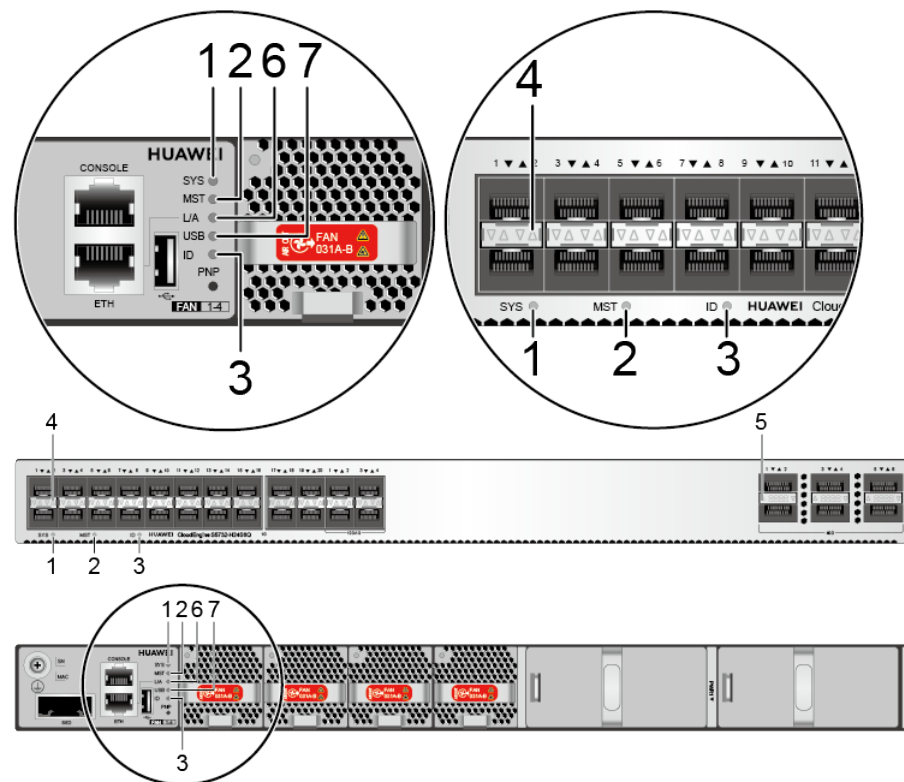


Table 4-1508 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
2	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Blinking	The switch is the master switch in a stack or a standalone switch.
3	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
4	-	Service port indicator (GE/10GE optical port)	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.
			-	Off	The port is not sending or receiving data.

No.	Indicator	Name	Color	Status	Description
		<p>NOTE Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.</p>	Yellow	Blinking	The port is sending or receiving data.
5	-	Service port indicator (40GE/100GE optical port)	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.

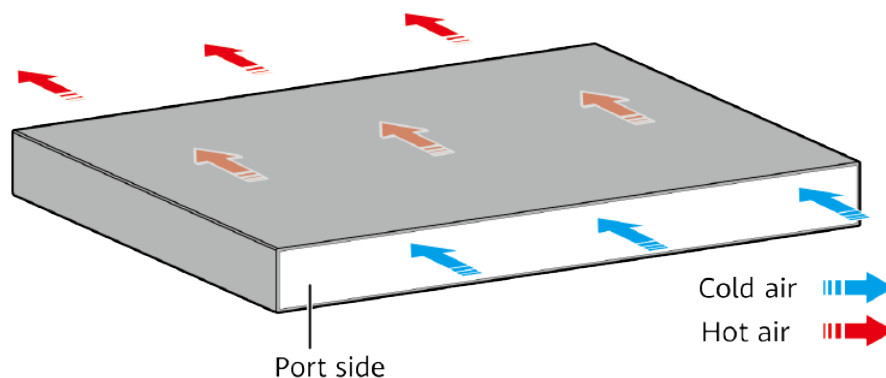
No.	Indicator	Name	Color	Status	Description
		NOTE Each optical port has one single-color indicator. Arrowheads show the positions of ports.		Blinking	The port is sending or receiving data.
6	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The Eth port is sending or receiving data.
7	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5732-H24S6Q uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1509](#) lists technical specifications of the S5732-H24S6Q.

Table 4-1509 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	62.27 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	N/A

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> ● Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode ● Using DC power modules: ±2 kV in differential mode, ±4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (with packaging)	8.9 kg (19.62 lb)
Stack ports	Any QSFP+ ports
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	229 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	126 W

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to 40°C (23°F to 104°F) when it uses QSFP-100G-ER4 optical module.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 65 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02353AJS 02353AJS-001 02353AJS-003 02353AJS-004 02353AJS-005

4.29.2 S5732-H48S6Q (02353AJU/ 02353AJU-001/02353AJU-003/02353AJU-004)

Version Mapping

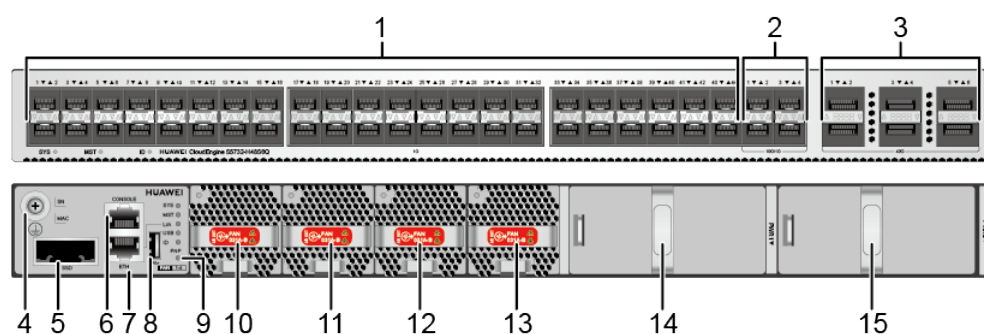
Table 4-1510 lists the mapping between the S5732-H48S6Q chassis and software versions.

Table 4-1510 Version mapping

Series	Model	Software Version
S5732-H	S5732-H48S6Q	02353AJU: V200R019C00 and later versions 02353AJU-001: V200R020C10 and later versions 02353AJU-003: V200R021C10SPC500 and later versions (If V200R021C00SPC100 is used, install V200R021SPH011 or a later patch.) 02353AJU-004: V200R021C10SPC600 and later versions (If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch.) NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-581 S5732-H48S6Q appearance



1	Forty-four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables
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<p>3</p>	<p>Six 40GE/100GE QSFP+ optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • 1 m, 3 m, and 5 m QSFP+ to QSFP+ high-speed copper cables • 10 m QSFP+ to QSFP+ AOC cable • QSFP28 optical module (supported in V200R020C00 and later versions, with a license loaded) • 1 m QSFP28 to QSFP28 high-speed copper cable (supported in V200R020C00 and later versions, with a license loaded) • 10 m QSFP28 to QSFP28 AOC cable (supported in V200R020C00 and later versions, with a license loaded) • 2 m QSFP28 dedicated stack cable (supported in V200R020C10 and later versions) <p>NOTE</p> <p>A QSFP+ optical port cannot be split into four 10GE ports, regardless of whether the port uses a QSFP28 or QSFP+ optical module.</p> <p>By default, a QSFP+ optical port is a 40GE port. In V200R020C00 and later versions, a license can be loaded to increase the port rate to 100 Gbit/s. After the license is activated, run the assign port-type 100GE command and restart the switch to configure the port as a 100GE port.</p>	<p>4</p>	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
<p>5</p>	<p>SSD card slot</p> <p>NOTE</p> <p>This slot is reserved for future use.</p>	<p>6</p>	<p>One console port</p>
<p>7</p>	<p>One ETH management port</p>	<p>8</p>	<p>One USB port</p>

9	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	1 0	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>
1 1	<p>Fan module slot 2</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>	1 2	<p>Fan module slot 3</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>
1 3	<p>Fan module slot 4</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>	1 4	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module)
1 5	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.30 PDC1000S12-DB (1000 W DC Power Module) 	-	-

Port Description

1000BASE-X Ethernet Optical Port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission

speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1511](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1511 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1512](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1512 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

40GE QSFP+ optical port

A 40GE QSFP+ optical port sends and receives service traffic at 40 Gbit/s. [Table 4-1513](#) describes the attributes of a QSFP+ optical port.

Table 4-1513 Attributes of a QSFP+ optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1514](#).

Table 4-1514 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1515](#) describes the attributes of an ETH management port.

Table 4-1515 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to

the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

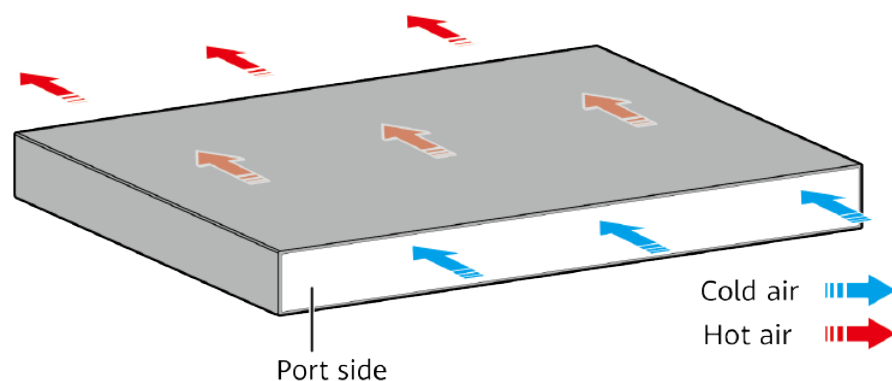
The S5732-H48S6Q has the same types of indicators as the S5732-H24S6Q. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5732-H48S6Q uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1516](#) lists technical specifications of the S5732-H48S6Q.

Table 4-1516 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	56.87 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	N/A
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (with packaging)	9.2 kg (20.28 lb)
Stack ports	Any QSFP+ ports
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	255 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	142 W
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to 40°C (23°F to 104°F) when it uses QSFP-100G-ER4 optical module.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 65 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02353AJU 02353AJU-001 02353AJU-003 02353AJU-004

4.29.3 S5732-H24UM2CC (02353HUC/ 02353HUC-003/02353SJY/ 02353SJY-001/02353SJY-004/02353SJY-010/02353SJY-011/0235 3SJY-014)

Version Mapping

Table 4-1517 lists the mapping between the S5732-H24UM2CC chassis and software versions.

Table 4-1517 Version mapping

Series	Model	Software Version
S5732-H	S5732-H24UM2CC	02353HUC: Supported in V200R019C10SPC500 and later versions 02353SJY: Supported in V200R019C10SPC500 and later versions 02353SJY-001: Supported in V200R019C10SPC500 and later versions 02353SJY-004: Supported in V200R019C10SPC500 and later versions 02353HUC-003: V200R021C10SPC500 and later versions (If V200R021C00SPC100 is used, install V200R021SPH011 or a later patch.) 02353SJY-010: V200R021C10SPC500 and later versions (If V200R021C00SPC100 is used, install V200R021SPH011 or a later patch.) 02353SJY-011: V200R021C10SPC500 and later versions (If V200R021C00SPC100 is used, install V200R021SPH011 or a later patch.) 02353SJY-014: V200R021C10SPC500 and later versions (If V200R021C00SPC100 is used, install V200R021SPH011 or a later patch.) NOTE V200R021C01 is not supported.

There are several S5732-H24UM2CC bundles, which consist of different power supplies and ports, as listed in **Table 4-1518**.

Table 4-1518 S5732-H24UM2CC bundles

Part Number	Description	Remarks
02353HUC 02353HUC-003	S5732-H24UM2CC Premium(24*100M/1G/2.5G/5G/10G Ethernet ports, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, without power module)	By default, no power supply is configured. By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.
02353SJY 02353SJY-010	S5732-H24UM2CC Base(24*100M/1G Ethernet ports, Optional RTU upgrade to 2.5/5/10G, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, without power module)	By default, no power supply is configured. By default, multi-GE ports support 100 Mbit/s and 1000 Mbit/s. You can purchase an RTU license to increase the port rate to 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s.
02353SJY-001 02353SJY-011	S5732-H24UM2CC 2.5&10G Bundle(12*100M/1G/2.5G, 12*100M/1G/2.5G/5G/10G Ethernet ports, Optional RTU upgrade to 5/10G, 4*25GE + 2*40GE or 2*100GE, 1*expansion slot, PoE++, 1*1000W AC power)	By default, one 1000 W AC power module is configured. The 2.5GE RTU license for 12 multi-GE ports and the 10GE RTU license for another 12 multi-GE ports have been activated in factory default settings. You can run the assign group-speed command to configure these multi-GE ports as 12 x 2.5GE and 12 x 10GE ports. You can purchase an additional RTU license to upgrade the 2.5GE ports to 5GE or 10GE ports. There is a label on the rear side of the device, which contains the rate "12*2.5GE+12*10GE" supported by the multi-GE ports.

Part Number	Description	Remarks
02353SJY-004 02353SJY-014	S5732-H24UM2CC 10G Bundle(24*100M/1G/2.5G/5G/10G Ethernet ports, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, 1*1000W AC power)	By default, one 1000 W AC power module is configured. The 10GE RTU license for 24 multi-GE ports has been activated in factory default settings. You can run the assign group-speed command to configure these multi-GE ports as 24 x 10GE ports. There is a label on the rear side of the device, which contains the rate "24*10GE" supported by the multi-GE ports.

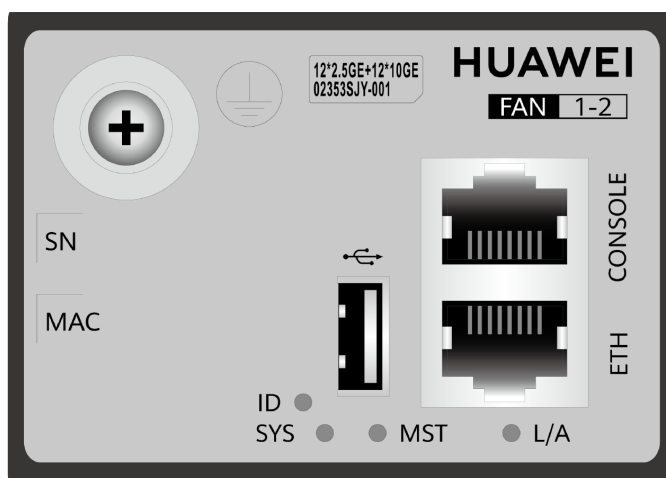
 **NOTE**

A pre-configured or loaded RTU (right to use) license of a device is bound to the device ESN and cannot be unbound or transferred to other devices.

For details about the RTU licenses supported by the device and how to load them, see the *License Usage Guide*.

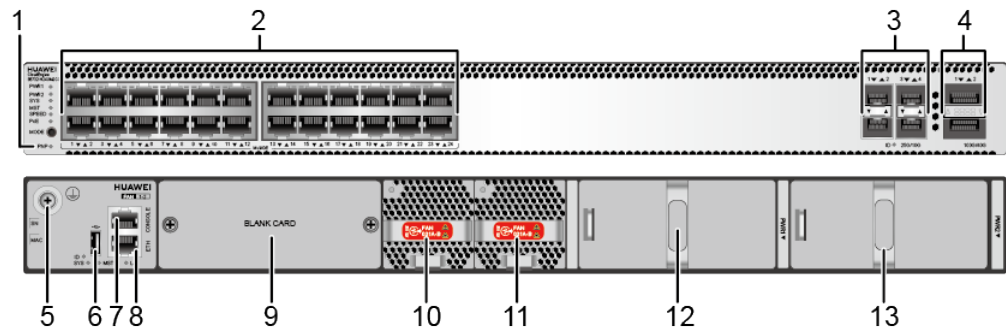
The rate of MultiGE ports can be increased using the RTU license. After the license is activated, you can run the **assign group-speed** command and restart the device to make the configured maximum rate supported by the ports in the MultiGE port group take effect. To check the default rate of MultiGE ports, run the **display device group-speed configuration** command. The **BaseSpeed** field indicates the default rate.

A switch with part number 02353SJY-001 is as an example. The switch has a label on its real panel, which shows the default rate of multi-GE ports on the switch.



Appearance and Structure

Figure 4-582 S5732-H24UM2CC appearance



<p>1</p> <p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	<p>2</p> <p>Twenty-four 100M/1000M/2.5GE/5GE/10GE BASE-T PoE++ ports (multi-GE ports)</p>
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3	<p>Four 1GE/10GE/25GE SFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 25GE SFP28 Optical Module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 1 m, 3 m, and 5 m SFP28 high-speed copper cables • 3 m, 5 m, 7 m, and 10 m SFP28 AOC cables 	4	<p>Two 40GE/100GE QSFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • QSFP28 optical module • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables • 10 m QSFP+ AOC cable • 1 m, 3 m, and 5 m QSFP28 high-speed copper cables • 10 m QSFP28 AOC cable • 2 m QSFP28 dedicated stack cable (supported in V200R020C10 and later versions) <p>NOTE</p> <p>You can run the set device port-config-mode enable command to change the working mode of SFP28 and QSFP28 optical ports. By default, the working mode of SFP28 and QSFP28 optical ports is "4 x 25GE + 2 x 40GE".</p> <p>If any QSFP28 optical port is configured to work at 100 Gbit/s or split into four 25GE ports, the four SFP28 optical ports become unavailable.</p>
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>One USB port</p>
7	<p>One console port</p>	8	<p>One ETH management port</p>
9	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • S7X08000 • S7Y08000 • S7Q02001 (02313UBW) (applicable in V200R022C00 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R022C00 and later versions) • S7C02000 (applicable in V200R022C00 and later versions) 	10	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>

<p>1 1</p>	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>	<p>1 2</p>	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions)
<p>1 3</p>	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions) 	<p>-</p>	<p>-</p>

Port Description

100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port)

A 100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s, and must use

an **Ethernet cable**. If the 2.5 Gbit/s or 5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. If the 10 Gbit/s speed is required, the port must use an Ethernet cable of Cat6A F/UTP or higher category. **Table 4-1519** describes the attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port.

Table 4-1519 Attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, IEEE802.3an
Working Mode	100/1000/2500/5000/10000 Mbit/s auto-sensing

Table 4-1520 lists the maximum transmission distances of different cables on multi-GE ports.

Table 4-1520 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m	<ul style="list-style-type: none"> • 55 m • 100 m (6-a-1 bundle only for the first 30 m) Not recommended due to high risk	Not supported
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m	100 m	Not supported
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/ 1000M	2.5GE	5GE	10GE
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m	100 m	Not supported
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m	100 m	100 m

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

If a port works at a rate of 5 Gbit/s, you are advised not to use unshielded Ethernet cables due to the following causes:

- 802.3bz requires that the ALSNR value for alien crosstalk between Ethernet cables be greater than 0, but the standards for Cat5e and Cat6 unshielded twisted pairs do not specify the required ALSNR value. Therefore, such cables may not meet the crosstalk requirement in 802.3bz, causing severe problems such as continuous packet loss or port flapping may occur.
- According the cabling specification TIA TSB-5021, using Cat5e and Cat6 cables for 5G poses high risks.
- Currently, no clear onsite testing or evaluation method is available for checking whether ALSNR of cables conforms to 802.3bz.

If a port works at a rate of 5 Gbit/s and a Cat6 shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL Class E (+All) or TIA Cat 6 Channel (+All). If a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If a port works at a rate of 10 Gbit/s and a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If Cat5e and Cat6 unshielded twisted pairs do not meet the 5G requirement, you are advised to replace them with shielded twisted pairs or reduce the rate of ports to 2.5G.

If Cat5E, Cat6, or Cat6A unshielded twisted pairs are used on electrical ports working at 10 Gbit/s, severe problems such as continuous packet loss or port flapping may occur.

1GE/10GE/25GE SFP28 optical port

A 1GE/10GE/25GE SFP28 optical port sends and receives service data at 1 Gbit/s, 10 Gbit/s, or 25 Gbit/s. [Table 4-1521](#) describes the attributes of a 1GE/10GE/25GE SFP28 optical port.

Table 4-1521 Attributes of a 1GE/10GE/25GE SFP28 optical port

Attribute	Description
Connector Type	LC/PC
Optical port attributes	Depending on the optical module or cable in use
Standards compliance	IEEE802.3z, IEEE802.3ae, and IEEE802.3by
Working mode	<ul style="list-style-type: none">• When a 25GE optical module or cable is connected to a port, the port can automatically adjust its rate to 25 Gbit/s.• When a 10GE optical module or cable is connected to a port, the port can automatically adjust its rate to 10 Gbit/s.• Before installing a GE optical module or copper module on a port, run the port mode ge command to configure the port to work at 1 Gbit/s.

40GE/100GE QSFP28 optical port

A 40GE/100GE QSFP28 optical port sends and receives service traffic at 40 Gbit/s or 100 Gbit/s. [Table 4-1522](#) describes the attributes of a QSFP28 optical port.

Table 4-1522 Attributes of a QSFP28 optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1523](#).

Table 4-1523 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1524](#) describes the attributes of an ETH management port.

Table 4-1524 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-583 Indicators on the S5732-H24UM2CC

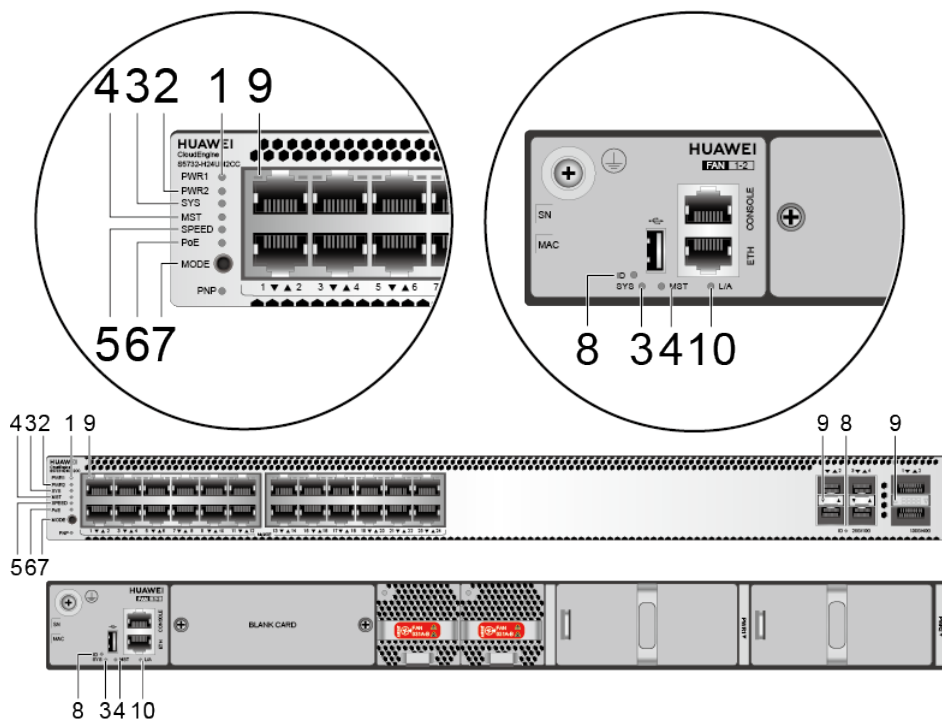


Table 4-1525 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
			Red	Steady on	The switch has two power modules installed. An unsupported power module is installed in power module slot 1. NOTE Only the S5732-H48XUM2CC has this indicator status.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.

No.	Indicator	Name	Color	Status	Description
			Red	Steady on	<p>The switch has two power modules installed.</p> <p>An unsupported power module is installed in power module slot 2.</p> <p>NOTE Only the S5732-H48XUM2CC has this indicator status.</p>
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Yellow	Blinking	The switch has restarted after a successful upgrade using a USB flash drive. You can remove the USB flash drive from the switch.
			Red	Blinking	The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none">If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled.If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>
8	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-1526 .		
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

Table 4-1526 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
	Yellow	Blinking	The port is sending or receiving data. NOTE Only the S5732-H48XUM2CC has this indicator status.
	Yellow	Steady on	The port is supplying PoE power remotely and is not transmitting data. NOTE This port status is supported by the multi-GE ports on the S5732-H48XUM2CC.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	<ul style="list-style-type: none"> 100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 100 Mbit/s or 1000 Mbit/s. 1GE/10GE/25GE SFP28 port: The port is operating at 1 Gbit/s or 10 Gbit/s. 40GE/100GE QSFP28 port: The port is operating at 40 Gbit/s. 1GE/10GE SFP+ port: The port is operating at 1 Gbit/s.
	Green	Blinking	<ul style="list-style-type: none"> 100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s. 1GE/10GE/25GE SFP28 port: The port is operating at 25 Gbit/s. 40GE/100GE QSFP28 port: The port is operating at 100 Gbit/s. 1GE/10GE SFP+ port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1527 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	675 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 22 ● 802.3bt (60 W per port): 11
1000 W AC (110 V)	–	580 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 19 ● 802.3bt (60 W per port): 9
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1440 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1435 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 23
600 W AC (220 V)	–	295 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 19 ● 802.3at (30 W per port): 9 ● 802.3bt (60 W per port): 4

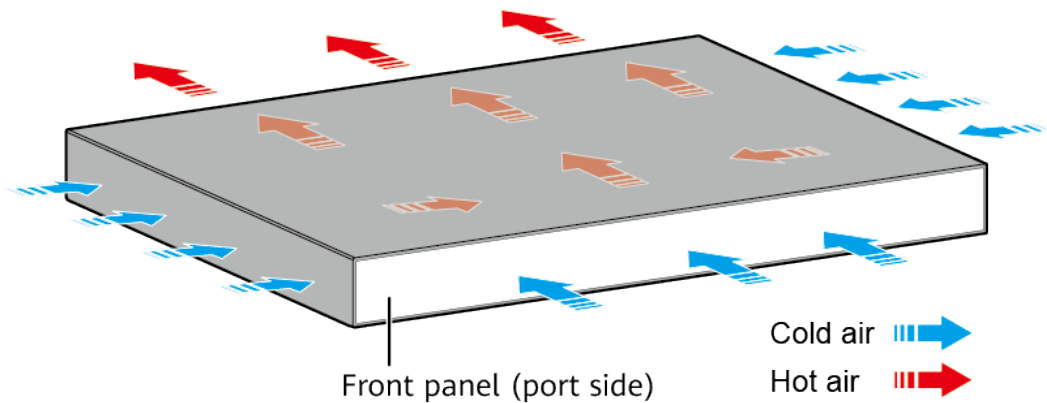
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	600 W AC (220 V)	865 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 14
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1245 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 20

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5732-H24UM2CC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1528](#) lists technical specifications of the S5732-H24UM2CC.

Table 4-1528 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	38.05 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (including package)	Without power modules: 8 kg (17.64 lb) Including one power module: 9.1 kg (20.06 lb)
Stack ports	Any Ethernet electrical ports (10GE), optical ports on the front panel (25GE/40GE/100GE), or optical ports on the card (10GE/25GE/40GE/100GE)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC

Item	Description
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DCDC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 285 W (without card)100% PoE loads: 1933 W (PoE: 1440 W, without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	161 W (without card)
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to 40°C (23°F to 104°F) when it uses QSFP-100G-ER4 optical module.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">EMC certificationSafety certificationManufacturing certification

Item	Description
Part number	02353HUC 02353HUC-003 02353SJY 02353SJY-001 02353SJY-004 02353SJY-010 02353SJY-011 02353SJY-014

4.29.4 S5732-H24UM2CC (02353SJY-020/02353SJY-021/02353SJY-024)

Version Mapping

[Table 4-1529](#) lists the mapping between the S5732-H24UM2CC chassis and software versions.

Table 4-1529 Version mapping

Series	Model	Software Version
S5732-H	S5732-H24UM2CC	02353SJY-020: Supported in V200R022C00 and later versions 02353SJY-021: Supported in V200R022C00 and later versions 02353SJY-024: Supported in V200R022C00 and later versions

There are several S5732-H24UM2CC bundles, which consist of different power supplies and ports, as listed in [Table 4-1530](#).

Table 4-1530 S5732-H24UM2CC bundles

Part Number	Description	Remarks
02353SJY-020	S5732-H24UM2CC Base(24*100M/1G Ethernet ports, Optional RTU upgrade to 2.5/5/10G, 4*25GE SFP28, 2*100GE QSFP28 ports, 1*expansion slot, PoE++, without power module)	<p>By default, no power supply is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s and 1000 Mbit/s. You can purchase an RTU license to increase the port rate to 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s.</p>
02353SJY-021	S5732-H24UM2CC 2.5&10G Bundle(12*100M/1G/2.5G, 12*100M/1G/2.5G/5G/10G Ethernet ports, Optional RTU upgrade to 5/10G, 4*25GE SFP28, 2*100GE QSFP28 ports, 1*expansion slot, PoE++, with AC power supply)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, the first 12 multi-GE ports support 100 Mbit/s, 1000 Mbit/s, and 2.5 Gbit/s. You can purchase an RTU license to increase the port rate to 5 Gbit/s or 10 Gbit/s.</p> <p>By default, the last 12 multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "12*2.5GE +12*10GE" supported by the multi-GE ports.</p>
02353SJY-024	S5732-H24UM2CC 10G Bundle(24*100M/1G/2.5G/5G/10G Ethernet ports, 4*25GE SFP28, 2*100GE QSFP28 ports, 1*expansion slot, PoE++, with AC power supply)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "24*10GE" supported by the multi-GE ports.</p>

NOTE

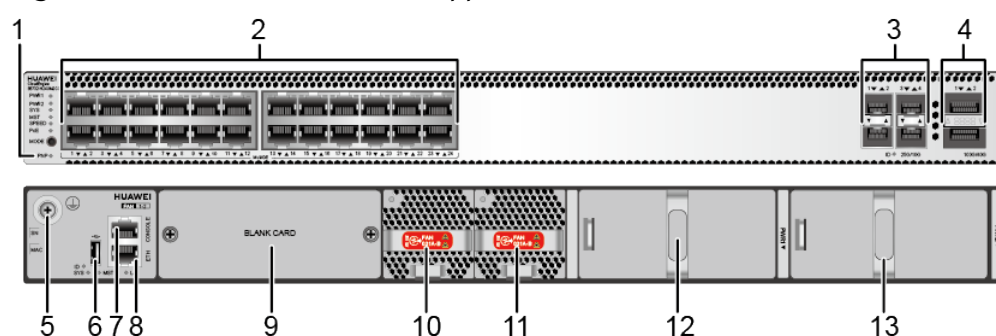
A pre-configured or loaded RTU (right to use) license of a device is bound to the device ESN and cannot be unbound or transferred to other devices.

For details about the RTU licenses supported by the device and how to load them, see the *License Usage Guide*.

The rate of MultiGE ports can be increased using the RTU license. After the license is activated, you can run the **assign group-speed** command and restart the device to make the configured maximum rate supported by the ports in the MultiGE port group take effect. To check the default rate of MultiGE ports, run the **display device group-speed configuration** command. The **BaseSpeed** field indicates the default rate.

Appearance and Structure

Figure 4-584 S5732-H24UM2CC appearance



<p>1</p> <p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	<p>2</p> <p>Twenty-four 100M/1000M/2.5GE/5GE/10GE BASE-T PoE++ ports (multi-GE ports)</p>
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3	<p>Four 10GE/25GE SFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 25GE SFP28 Optical Module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 1 m and 3 m SFP28 high-speed copper cables • 3 m, 5 m, 7 m, and 10 m SFP28 AOC cables 	4	<p>Two 40GE/100GE QSFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • QSFP28 optical module • 1 m, 3 m, and 5 m QSFP+ to QSFP+ high-speed copper cables • 10 m QSFP+ to QSFP+ AOC cable • 1 m and 3 m QSFP28 to QSFP28 high-speed copper cables • 10 m QSFP28 to QSFP28 AOC cable • 2 m QSFP28 dedicated stack cable <p>NOTE</p> <p>A QSFP28 optical port cannot be split into four 10GE ports, regardless of whether the port uses a QSFP28 or QSFP+ optical module.</p> <p>The default rate of a QSFP28 optical port is 100 Gbit/s. When a QSFP+ optical module or QSFP+ cable is used, the rate can be auto-sensing to 40 Gbit/s.</p>
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>One USB port</p>
7	<p>One console port</p>	8	<p>One ETH management port</p>
9	<p>Rear card slot</p> <p>NOTE Applicable card:</p> <ul style="list-style-type: none"> • S7X08000 • S7Y08000 • S7Q02001 (02313UBW) • S7Q02001 (02313UBW-002) • S7C02000 	10	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>

1 1	<p>Fan module slot 2</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>	1 2	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust))
1 3	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) 	-	-

Port Description

100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port)

A 100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s, and must use an **Ethernet cable**. If the 2.5 Gbit/s or 5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. If the 10 Gbit/s speed is required, the port must use an Ethernet cable of Cat6A F/UTP or higher category. [Table 4-1531](#) describes the attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port.

Table 4-1531 Attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, IEEE802.3an
Working Mode	100/1000/2500/5000/10000 Mbit/s auto-sensing

Table 4-1532 lists the maximum transmission distances of different cables on multi-GE ports.

Table 4-1532 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m	<ul style="list-style-type: none"> • 55 m • 100 m (6-a-1 bundle only for the first 30 m) Not recommended due to high risk	Not supported
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m	100 m	Not supported
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m	100 m	Not supported

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m	100 m	100 m

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

If a port works at a rate of 5 Gbit/s, you are advised not to use unshielded Ethernet cables due to the following causes:

- 802.3bz requires that the ALSNR value for alien crosstalk between Ethernet cables be greater than 0, but the standards for Cat5e and Cat6 unshielded twisted pairs do not specify the required ALSNR value. Therefore, such cables may not meet the crosstalk requirement in 802.3bz, causing severe problems such as continuous packet loss or port flapping may occur.
- According the cabling specification TIA TSB-5021, using Cat5e and Cat6 cables for 5G poses high risks.
- Currently, no clear onsite testing or evaluation method is available for checking whether ALSNR of cables conforms to 802.3bz.

If a port works at a rate of 5 Gbit/s and a Cat6 shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL Class E (+All) or TIA Cat 6 Channel (+All). If a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If a port works at a rate of 10 Gbit/s and a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If Cat5e and Cat6 unshielded twisted pairs do not meet the 5G requirement, you are advised to replace them with shielded twisted pairs or reduce the rate of ports to 2.5G.

If Cat5E, Cat6, or Cat6A unshielded twisted pairs are used on electrical ports working at 10 Gbit/s, severe problems such as continuous packet loss or port flapping may occur.

10GE/25GE SFP28 optical port

A 10GE/25GE SFP28 optical port sends and receives service data at 10 Gbit/s, or 25 Gbit/s. [Table 4-1533](#) describes the attributes of a 10GE/25GE SFP28 optical port.

Table 4-1533 Attributes of a 10GE/25GE SFP28 optical port

Attribute	Description
Connector Type	LC/PC
Optical port attributes	Depending on the optical module or cable in use
Standards compliance	IEEE802.3z, IEEE802.3ae, and IEEE802.3by
Working mode	<ul style="list-style-type: none"> When a 25GE optical module or cable is connected to a port, the port can automatically adjust its rate to 25 Gbit/s. When a 10GE optical module or cable is connected to a port, the port can automatically adjust its rate to 10 Gbit/s.

40GE/100GE QSFP28 optical port

A 40GE/100GE QSFP28 optical port sends and receives service traffic at 40 Gbit/s or 100 Gbit/s. [Table 4-1534](#) describes the attributes of a QSFP28 optical port.

Table 4-1534 Attributes of a QSFP28 optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1535](#).

Table 4-1535 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1536](#) describes the attributes of an ETH management port.

Table 4-1536 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-585 Indicators on the S5732-H24UM2CC

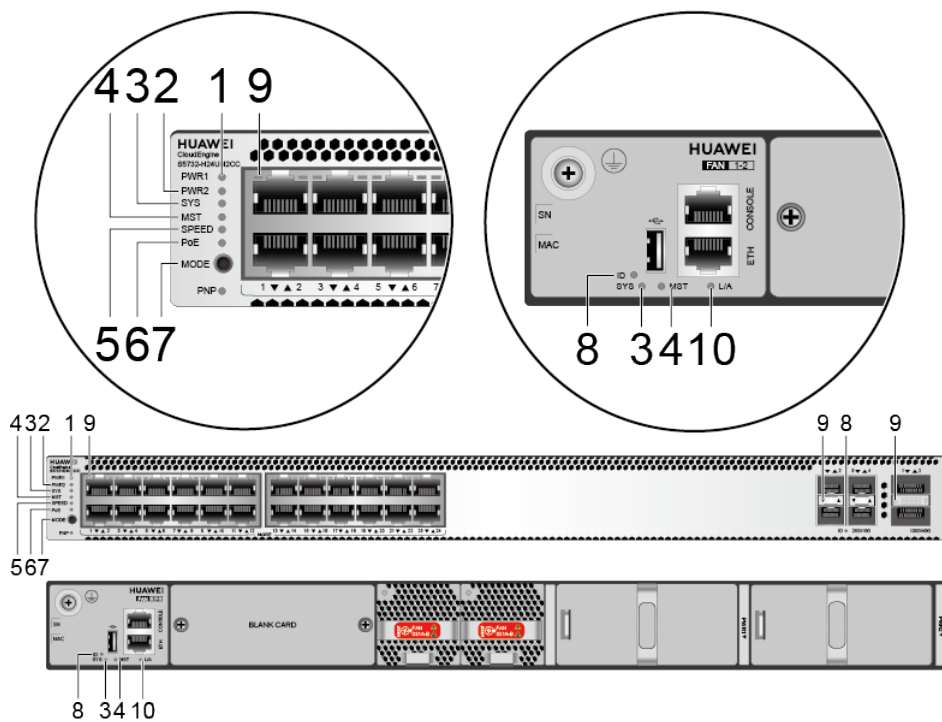


Table 4-1537 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Yellow	Blinking	The switch has restarted after a successful upgrade using a USB flash drive. You can remove the USB flash drive from the switch.
			Red	Blinking	The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none">• If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch.• If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none">If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled.If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>
8	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.

No.	Indicator	Name	Color	Status	Description
9	-	Service port indicator (one indicator for each port)	Electrical port: The indicator in the upper left corner of a port indicates the indicator of a port at the top, and the indicator in the upper right corner indicates the indicator of a port at the bottom. Optical port: Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see Table 4-1538 .
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

Table 4-1538 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

Display Mode	Color	Status	Description
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	<ul style="list-style-type: none"> 100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 100 Mbit/s or 1000 Mbit/s. 10GE/25GE SFP28 port: The port is operating at 10 Gbit/s. 40GE/100GE QSFP28 port: The port is operating at 40 Gbit/s.
	Green	Blinking	<ul style="list-style-type: none"> 100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s. 10GE/25GE SFP28 port: The port is operating at 25 Gbit/s. 40GE/100GE QSFP28 port: The port is operating at 100 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Display Mode	Color	Status	Description
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1539 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	737 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W AC (110 V)	–	642 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 21 ● 802.3bt (60 W per port): 10 ● 802.3bt (90 W per port): 7
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1687 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 18

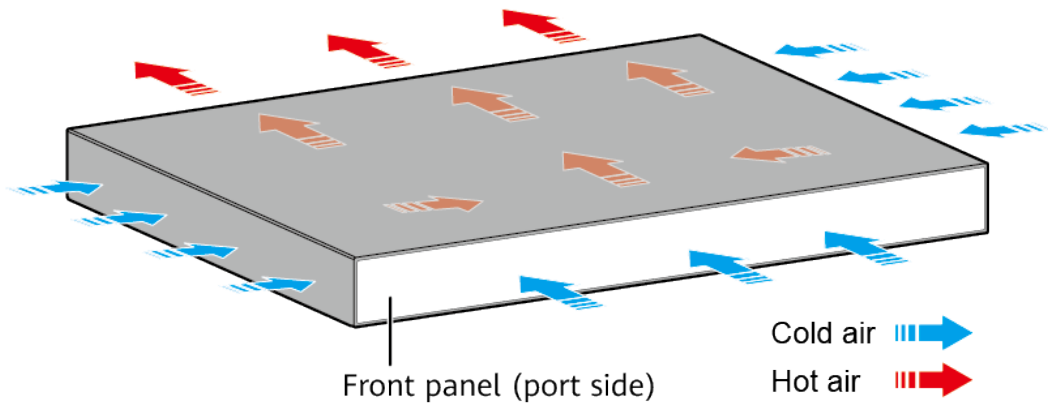
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1497 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 24• 802.3bt (90 W per port): 16
600 W AC (220 V)	-	357 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 23• 802.3at (30 W per port): 11• 802.3bt (60 W per port): 5• 802.3bt (90 W per port): 3
600 W AC (220 V)	600 W AC (220 V)	927 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 15• 802.3bt (90 W per port): 10
600 W AC (110 V)	600 W AC (110 V)	357 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 23• 802.3at (30 W per port): 11• 802.3bt (60 W per port): 5• 802.3bt (90 W per port): 3
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1307 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 21• 802.3bt (90 W per port): 14

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5732-H24UM2CC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1540](#) lists technical specifications of the S5732-H24UM2CC.

Table 4-1540 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	51.4 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (including package)	Without power modules: 8.88 kg (19.58 lb) Including one power module: 9.92 kg (21.87 lb)
Stack ports	Any Ethernet electrical ports (10GE), optical ports on the front panel (25GE/40GE/100GE), or optical ports on the card (10GE/25GE/40GE/100GE)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 241 W (without card) 100% PoE loads: 2011 W (PoE: 1687 W, without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	161 W (without card)

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to 40°C (23°F to 104°F) when it uses QSFP-100G-ER4 optical module.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	<ul style="list-style-type: none"> • Dual AC 600 W, 30% load: 49.2 dBA • Dual AC 1000 W, 30% load: 51.2 dBA • Dual-DC 1000 W, 30% load: 51.2 dBA
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353SJY-020 02353SJY-021 02353SJY-024

4.29.5 S5732-H48UM2CC (02353HUB/ 02353HUB-002/02353SJT/ 02353SJT-001/02353SJT-003/02353SJT-004/02353SJT-010/0235 3SJT-011/02353SJT-013/02353SJT-014)

Version Mapping

[Table 4-1541](#) lists the mapping between the S5732-H48UM2CC chassis and software versions.

Table 4-1541 Version mapping

Series	Model	Software Version
S5732-H	S5732-H48UM2CC	02353HUB: Supported in V200R019C10SPC500 and later versions 02353HUB-002: V200R021C10SPC500 and later versions (If V200R021C00SPC100 is used, install V200R021SPH011 or a later patch.) 02353SJT: Supported in V200R019C10SPC500 and later versions 02353SJT-001: Supported in V200R019C10SPC500 and later versions 02353SJT-003: Supported in V200R019C10SPC500 and later versions 02353SJT-004: Supported in V200R019C10SPC500 and later versions 02353SJT-010: V200R021C10SPC500 and later versions (If V200R021C00SPC100 is used, install V200R021SPH011 or a later patch.) 02353SJT-011: V200R021C10SPC500 and later versions (If V200R021C00SPC100 is used, install V200R021SPH011 or a later patch.) 02353SJT-013: V200R021C10SPC500 and later versions (If V200R021C00SPC100 is used, install V200R021SPH011 or a later patch.) 02353SJT-014: V200R021C10SPC500 and later versions (If V200R021C00SPC100 is used, install V200R021SPH011 or a later patch.) NOTE V200R021C01 is not supported.

There are several S5732-H48UM2CC bundles, which consists of different power supplies and ports, as listed in [Table 4-1542](#).

Table 4-1542 S5732-H48UM2CC bundles

Part Number	Description	Remarks
02353HUB 02353HUB-002	S5732-H48UM2CC Premium(48*100M/1G/2.5G/5G/10G Ethernet ports, 4*25GE SFP28 + 2*40GE ports or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, without power module)	By default, no power supply is configured. By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.
02353SJT 02353SJT-010	S5732-H48UM2CC Base(48*100M/1G Ethernet ports,Optional RTU upgrade to 2.5/5/10G, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, without power module)	By default, no power supply is configured. By default, multi-GE ports support 100 Mbit/s and 1000 Mbit/s. You can purchase an RTU license to increase the port rate to 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s.
02353SJT-001 02353SJT-011	S5732-H48UM2CC 2.5&10G Bundle(36*100M/1G/2.5G, 12*100M/1G/2.5G/5G/10G Ethernet ports, Optional RTU upgrade to 5/10G, 4*25GE + 2*40GE or 2*100GE, 1*expansion slot, PoE++, 1*1000W AC power)	By default, one 1000 W AC power module is configured. The 2.5GE RTU license for 36 multi-GE ports and the 10GE RTU license for another 12 multi-GE ports have been activated in factory default settings. You can run the assign group-speed command to configure these multi-GE ports as 36 x 2.5GE and 12 x 10GE ports. You can purchase an additional RTU license to upgrade the 2.5GE ports to 5GE or 10GE ports. There is a label on the rear side of the device, which contains the rate "36*2.5GE+12*10GE" supported by the multi-GE ports.

Part Number	Description	Remarks
02353SJT-003 02353SJT-013	S5732-H48UM2CC 5G Bundle(48*100M/1G/2.5G/5G Ethernet ports, Optional RTU upgrade to 10G, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, 1*1000W AC power)	<p>By default, one 1000 W AC power module is configured.</p> <p>The 5GE RTU license for 48 multi-GE ports has been activated in factory default settings. You can run the assign group-speed command to configure these multi-GE ports as 48 x 5GE ports. You can purchase an additional RTU license to upgrade the 5GE ports to 10GE ports.</p> <p>There is a label on the rear side of the device, which contains the rate "48*5GE" supported by the multi-GE ports.</p>
02353SJT-004 02353SJT-014	S5732-H48UM2CC 10G Bundle(48*100M/1G/2.5G/5G/10G Ethernet ports, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, 1*1000W AC power)	<p>By default, one 1000 W AC power module is configured.</p> <p>The 10GE RTU license for 48 multi-GE ports has been activated in factory default settings. You can run the assign group-speed command to configure these multi-GE ports as 48 x 10GE ports.</p> <p>There is a label on the rear side of the device, which contains the rate "48*10GE" supported by the multi-GE ports.</p>

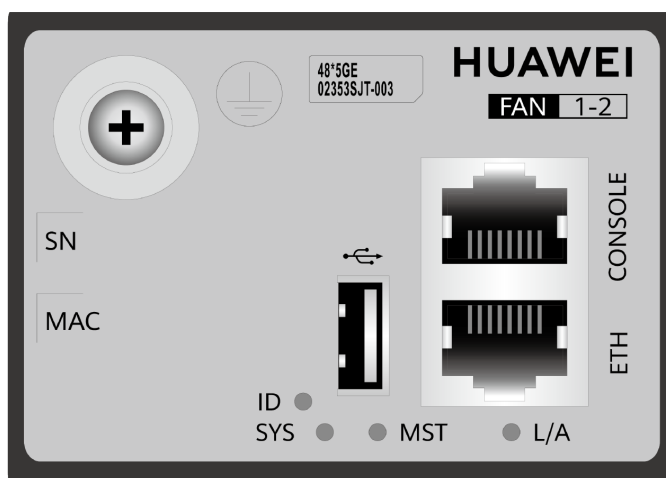
NOTE

A pre-configured or loaded RTU (right to use) license of a device is bound to the device ESN and cannot be unbound or transferred to other devices.

For details about the RTU licenses supported by the device and how to load them, see the *License Usage Guide*.

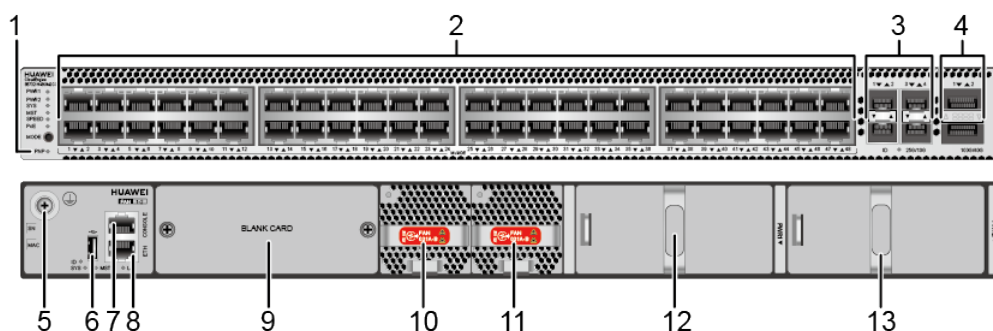
The rate of MultiGE ports can be increased using the RTU license. After the license is activated, you can run the **assign group-speed** command and restart the device to make the configured maximum rate supported by the ports in the MultiGE port group take effect. To check the default rate of MultiGE ports, run the **display device group-speed configuration** command. The **BaseSpeed** field indicates the default rate.

A switch with part number 02353SJT-003 is as an example. The switch has a label on its real panel, which shows the default rate of multi-GE ports on the switch.



Appearance and Structure

Figure 4-586 S5732-H48UM2CC appearance



1	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	2	<p>Forty-eight 100M/1000M/2.5GE/5GE/10GE BASE-T PoE++ ports (multi-GE ports)</p>
3	<p>Four 1GE/10GE/25GE SFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 25GE SFP28 Optical Module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 1 m, 3 m, and 5 m SFP28 high-speed copper cables • 3 m, 5 m, 7 m, and 10 m SFP28 AOC cables 	4	<p>Two 40GE/100GE QSFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • QSFP28 optical module • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables • 10 m QSFP+ AOC cable • 1 m, 3 m, and 5 m QSFP28 high-speed copper cables • 10 m QSFP28 AOC cable • 2 m QSFP28 dedicated stack cable (supported in V200R020C10 and later versions) <p>NOTE</p> <p>You can run the set device port-config-mode enable command to change the working mode of SFP28 and QSFP28 optical ports. By default, the working mode of SFP28 and QSFP28 optical ports is "4 x 25GE + 2 x 40GE".</p> <p>If any QSFP28 optical port is configured to work at 100 Gbit/s or split into four 25GE ports, the four SFP28 optical ports become unavailable.</p>
5	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	6	<p>One USB port</p>
7	<p>One console port</p>	8	<p>One ETH management port</p>

9	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • S7Y08000 • S7Q02001 (02313UBW) (applicable in V200R022C00 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R022C00 and later versions) • S7C02000 (applicable in V200R022C00 and later versions) 	1 0	Fan module slot 1 NOTE Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))
1 1	Fan module slot 2 NOTE Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))	1 2	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions)

1 3	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions) 	-	-
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Port Description

100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port)

A 100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s, and must use an [Ethernet cable](#). If the 2.5 Gbit/s or 5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. If the 10 Gbit/s speed is required, the port must use an Ethernet cable of Cat6A F/UTP or higher category. [Table 4-1543](#) describes the attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port.

Table 4-1543 Attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, IEEE802.3an
Working Mode	100/1000/2500/5000/10000 Mbit/s auto-sensing

[Table 4-1544](#) lists the maximum transmission distances of different cables on multi-GE ports.

Table 4-1544 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m	<ul style="list-style-type: none"> • 55 m • 100 m (6-a-1 bundle only for the first 30 m) Not recommended due to high risk	Not supported
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m	100 m	Not supported
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m	100 m	Not supported
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m	100 m	100 m

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

If a port works at a rate of 5 Gbit/s, you are advised not to use unshielded Ethernet cables due to the following causes:

- 802.3bz requires that the ALSNR value for alien crosstalk between Ethernet cables be greater than 0, but the standards for Cat5e and Cat6 unshielded twisted pairs do not specify the required ALSNR value. Therefore, such cables may not meet the crosstalk requirement in 802.3bz, causing severe problems such as continuous packet loss or port flapping may occur.
- According the cabling specification TIA TSB-5021, using Cat5e and Cat6 cables for 5G poses high risks.
- Currently, no clear onsite testing or evaluation method is available for checking whether ALSNR of cables conforms to 802.3bz.

If a port works at a rate of 5 Gbit/s and a Cat6 shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL Class E (+All) or TIA Cat 6 Channel (+All). If a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If a port works at a rate of 10 Gbit/s and a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If Cat5e and Cat6 unshielded twisted pairs do not meet the 5G requirement, you are advised to replace them with shielded twisted pairs or reduce the rate of ports to 2.5G.

If Cat5E, Cat6, or Cat6A unshielded twisted pairs are used on electrical ports working at 10 Gbit/s, severe problems such as continuous packet loss or port flapping may occur.

1GE/10GE/25GE SFP28 optical port

A 1GE/10GE/25GE SFP28 optical port sends and receives service data at 1 Gbit/s, 10 Gbit/s, or 25 Gbit/s. [Table 4-1521](#) describes the attributes of a 1GE/10GE/25GE SFP28 optical port.

Table 4-1545 Attributes of a 1GE/10GE/25GE SFP28 optical port

Attribute	Description
Connector Type	LC/PC
Optical port attributes	Depending on the optical module or cable in use
Standards compliance	IEEE802.3z, IEEE802.3ae, and IEEE802.3by

Attribute	Description
Working mode	<ul style="list-style-type: none"> When a 25GE optical module or cable is connected to a port, the port can automatically adjust its rate to 25 Gbit/s. When a 10GE optical module or cable is connected to a port, the port can automatically adjust its rate to 10 Gbit/s. Before installing a GE optical module or copper module on a port, run the port mode ge command to configure the port to work at 1 Gbit/s.

40GE/100GE QSFP28 optical port

A 40GE/100GE QSFP28 optical port sends and receives service traffic at 40 Gbit/s or 100 Gbit/s. [Table 4-1546](#) describes the attributes of a QSFP28 optical port.

Table 4-1546 Attributes of a QSFP28 optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1547](#).

Table 4-1547 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1548](#) describes the attributes of an ETH management port.

Table 4-1548 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5732-H48UM2CC has the same types of indicators as the S5732-H24UM2CC. For details, see [Indicator Description](#).

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1549 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	621 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 40 ● 802.3at (30 W per port): 20 ● 802.3bt (60 W per port): 10
1000 W AC (110 V)	–	526 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 34 ● 802.3at (30 W per port): 17 ● 802.3bt (60 W per port): 8
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1571 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 26
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1381 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 46 ● 802.3bt (60 W per port): 23
600 W AC (220 V)	–	241 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 15 ● 802.3at (30 W per port): 8 ● 802.3bt (60 W per port): 4
600 W AC (220 V)	600 W AC (220 V)	811 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 27 ● 802.3bt (60 W per port): 13

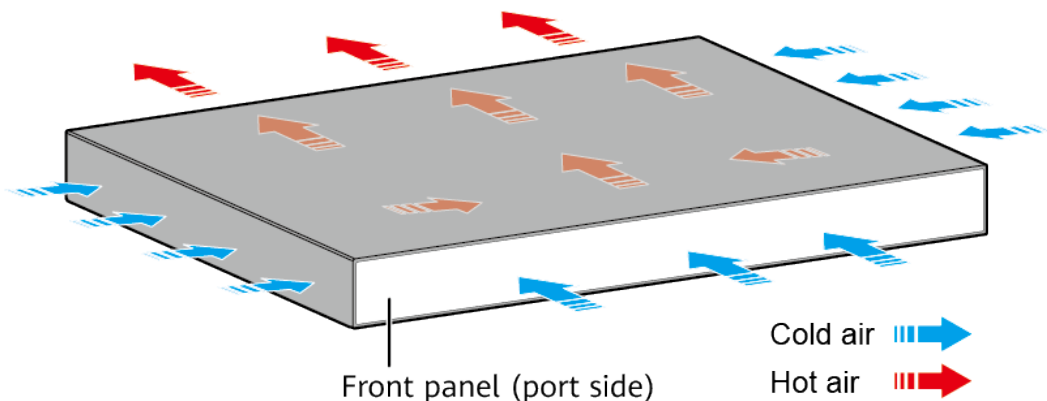
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1191 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 39 802.3bt (60 W per port): 19

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5732-H48UM2CC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1550](#) lists technical specifications of the S5732-H48UM2CC.

Table 4-1550 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	32.38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (including package)	Without power modules: 8.4 kg (18.52 lb) Including one power module: 9.5 kg (20.94 lb)
Stack ports	Any Ethernet electrical ports (10GE), optical ports on the front panel (25GE/40GE/100GE), or optical ports on the card (10GE/25GE/40GE/100GE)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Not providing the PoE function: 347 W (without card)• 100% PoE loads: 2043 W (PoE: 1571 W, without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	215 W (without card)
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to 40°C (23°F to 104°F) when it uses QSFP-100G-ER4 optical module.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification

Item	Description
Part number	02353HUB 02353HUB-002 02353SJT 02353SJT-001 02353SJT-003 02353SJT-004 02353SJT-010 02353SJT-011 02353SJT-013 02353SJT-014

4.29.6 S5732-H48UM2CC (02353SJT-020/02353SJT-021/02353SJT-023/02353SJT-024)

Version Mapping

[Table 4-1551](#) lists the mapping between the S5732-H48UM2CC chassis and software versions.

Table 4-1551 Version mapping

Series	Model	Software Version
S5732-H	S5732-H48UM2CC	02353SJT-020: Supported in V200R022C00 and later versions 02353SJT-021: Supported in V200R022C00 and later versions 02353SJT-023: Supported in V200R022C00 and later versions 02353SJT-024: Supported in V200R022C00 and later versions

There are several S5732-H48UM2CC bundles, which consists of different power supplies and ports, as listed in [Table 4-1552](#).

Table 4-1552 S5732-H48UM2CC bundles

Part Number	Description	Remarks
02353SJT-020	S5732-H48UM2CC Base(48*100M/1G Ethernet ports, Optional RTU upgrade to 2.5/5/10G, 4*25GE SFP28, 2*100GE QSFP28 ports, 1*expansion slot, PoE++, without power module)	<p>By default, no power supply is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s and 1000 Mbit/s. You can purchase an RTU license to increase the port rate to 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s.</p>
02353SJT-021	S5732-H48UM2CC 2.5&10G Bundle(36*100M/1G/2.5G, 12*100M/1G/2.5G/5G/10G Ethernet ports, Optional RTU upgrade to 5/10G, 4*25GE SFP28, 2*100GE QSFP28 ports, 1*expansion slot, PoE++, with AC power supply)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, the first 36 multi-GE ports support 100 Mbit/s, 1000 Mbit/s, and 2.5 Gbit/s. You can purchase an RTU license to increase the port rate to 5 Gbit/s or 10 Gbit/s.</p> <p>By default, the last 12 multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "36*2.5GE +12*10GE" supported by the multi-GE ports.</p>

Part Number	Description	Remarks
02353SJT-023	S5732-H48UM2CC 5G Bundle(48*100M/1G/2.5G/5G Ethernet ports, Optional RTU upgrade to 10G, 4*25GE SFP28, 2*100GE QSFP28 ports, 1*expansion slot, PoE++, with AC power supply)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, and 5 Gbit/s. You can purchase an RTU license to increase the port rate to 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "48*5GE" supported by the multi-GE ports.</p>
02353SJT-024	S5732-H48UM2CC 10G Bundle(48*100M/1G/2.5G/5G/10G Ethernet ports, 4*25GE SFP28, 2*100GE QSFP28 ports, 1*expansion slot, PoE++, with AC power supply)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "48*10GE" supported by the multi-GE ports.</p>

 NOTE

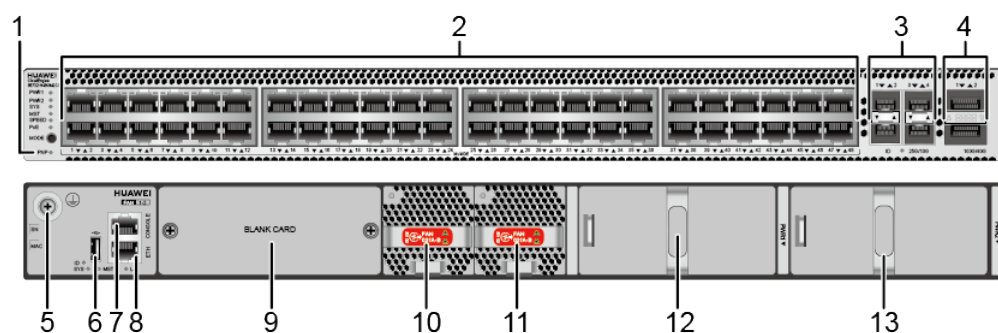
A pre-configured or loaded RTU (right to use) license of a device is bound to the device ESN and cannot be unbound or transferred to other devices.

For details about the RTU licenses supported by the device and how to load them, see the *License Usage Guide*.

The rate of MultiGE ports can be increased using the RTU license. After the license is activated, you can run the **assign group-speed** command and restart the device to make the configured maximum rate supported by the ports in the MultiGE port group take effect. To check the default rate of MultiGE ports, run the **display device group-speed configuration** command. The **BaseSpeed** field indicates the default rate.

Appearance and Structure

Figure 4-587 S5732-H48UM2CC appearance



<p>1 One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	<p>2 Forty-eight 100M/1000M/2.5GE/5GE/10GE BASE-T PoE++ ports (multi-GE ports)</p>
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3	<p>Four 10GE/25GE SFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 25GE SFP28 Optical Module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 1 m and 3 m SFP28 high-speed copper cables • 3 m, 5 m, 7 m, and 10 m SFP28 AOC cables 	4	<p>Two 40GE/100GE QSFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • QSFP28 optical module • 1 m, 3 m, and 5 m QSFP+ to QSFP+ high-speed copper cables • 10 m QSFP+ to QSFP+ AOC cable • 1 m and 3 m QSFP28 to QSFP28 high-speed copper cables • 10 m QSFP28 to QSFP28 AOC cable • 2 m QSFP28 dedicated stack cable <p>NOTE</p> <p>A QSFP28 optical port cannot be split into four 10GE ports, regardless of whether the port uses a QSFP28 or QSFP+ optical module.</p> <p>The default rate of a QSFP28 optical port is 100 Gbit/s. When a QSFP+ optical module or QSFP+ cable is used, the rate can be auto-sensing to 40 Gbit/s.</p>
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>One USB port</p>
7	<p>One console port</p>	8	<p>One ETH management port</p>
9	<p>Rear card slot</p> <p>NOTE Applicable card:</p> <ul style="list-style-type: none"> • S7X08000 • S7Y08000 • S7Q02001 (02313UBW) • S7Q02001 (02313UBW-002) • S7C02000 	10	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>

1 1	Fan module slot 2 NOTE Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))	1 2	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust))
1 3	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) 	-	-

Port Description

100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port)

A 100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s, and must use an **Ethernet cable**. If the 2.5 Gbit/s or 5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. If the 10 Gbit/s speed is required, the port must use an Ethernet cable of Cat6A F/UTP or higher category. [Table 4-1553](#) describes the attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port.

Table 4-1553 Attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, IEEE802.3an
Working Mode	100/1000/2500/5000/10000 Mbit/s auto-sensing

Table 4-1554 lists the maximum transmission distances of different cables on multi-GE ports.

Table 4-1554 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m	<ul style="list-style-type: none"> • 55 m • 100 m (6-a-1 bundle only for the first 30 m) Not recommended due to high risk	Not supported
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m	100 m	Not supported
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m	100 m	Not supported

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m	100 m	100 m

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

If a port works at a rate of 5 Gbit/s, you are advised not to use unshielded Ethernet cables due to the following causes:

- 802.3bz requires that the ALSNR value for alien crosstalk between Ethernet cables be greater than 0, but the standards for Cat5e and Cat6 unshielded twisted pairs do not specify the required ALSNR value. Therefore, such cables may not meet the crosstalk requirement in 802.3bz, causing severe problems such as continuous packet loss or port flapping may occur.
- According the cabling specification TIA TSB-5021, using Cat5e and Cat6 cables for 5G poses high risks.
- Currently, no clear onsite testing or evaluation method is available for checking whether ALSNR of cables conforms to 802.3bz.

If a port works at a rate of 5 Gbit/s and a Cat6 shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL Class E (+All) or TIA Cat 6 Channel (+All). If a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If a port works at a rate of 10 Gbit/s and a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If Cat5e and Cat6 unshielded twisted pairs do not meet the 5G requirement, you are advised to replace them with shielded twisted pairs or reduce the rate of ports to 2.5G.

If Cat5E, Cat6, or Cat6A unshielded twisted pairs are used on electrical ports working at 10 Gbit/s, severe problems such as continuous packet loss or port flapping may occur.

10GE/25GE SFP28 optical port

A 10GE/25GE SFP28 optical port sends and receives service data at 10 Gbit/s, or 25 Gbit/s. [Table 4-1533](#) describes the attributes of a 10GE/25GE SFP28 optical port.

Table 4-1555 Attributes of a 10GE/25GE SFP28 optical port

Attribute	Description
Connector Type	LC/PC
Optical port attributes	Depending on the optical module or cable in use
Standards compliance	IEEE802.3z, IEEE802.3ae, and IEEE802.3by
Working mode	<ul style="list-style-type: none"> When a 25GE optical module or cable is connected to a port, the port can automatically adjust its rate to 25 Gbit/s. When a 10GE optical module or cable is connected to a port, the port can automatically adjust its rate to 10 Gbit/s.

40GE/100GE QSFP28 optical port

A 40GE/100GE QSFP28 optical port sends and receives service traffic at 40 Gbit/s or 100 Gbit/s. [Table 4-1556](#) describes the attributes of a QSFP28 optical port.

Table 4-1556 Attributes of a QSFP28 optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1557](#).

Table 4-1557 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1558](#) describes the attributes of an ETH management port.

Table 4-1558 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5732-H48UM2CC has the same types of indicators as the S5732-H24UM2CC. For details, see [Indicator Description](#).

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1559 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	682 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 44 ● 802.3at (30 W per port): 22 ● 802.3bt (60 W per port): 11 ● 802.3bt (90 W per port): 7
1000 W AC (110 V)	–	587 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 38 ● 802.3at (30 W per port): 19 ● 802.3bt (60 W per port): 9 ● 802.3bt (90 W per port): 6
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1632 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 27 ● 802.3bt (90 W per port): 18

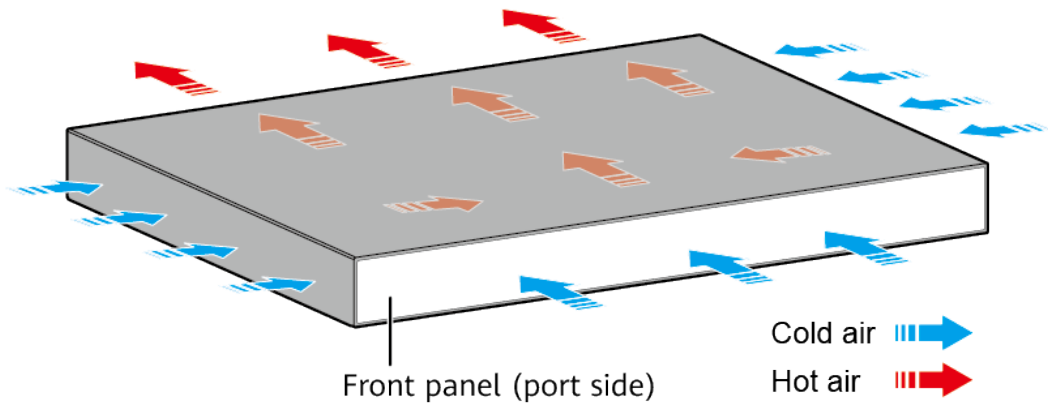
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1442 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 16
600 W AC (220 V)	-	302 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 19 ● 802.3at (30 W per port): 10 ● 802.3bt (60 W per port): 5 ● 802.3bt (90 W per port): 3
600 W AC (220 V)	600 W AC (220 V)	872 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 29 ● 802.3bt (60 W per port): 14 ● 802.3bt (90 W per port): 9
600 W AC (110 V)	600 W AC (110 V)	302 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 19 ● 802.3at (30 W per port): 10 ● 802.3bt (60 W per port): 5 ● 802.3bt (90 W per port): 3
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1252 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 41 ● 802.3bt (60 W per port): 20 ● 802.3bt (90 W per port): 13

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5732-H48UM2CC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1560](#) lists technical specifications of the S5732-H48UM2CC.

Table 4-1560 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	42.49 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (including package)	Without power modules: 9.53 kg (21.01 lb) Including one power module: 10.57 kg (23.3 lb)
Stack ports	Any Ethernet electrical ports (10GE), optical ports on the front panel (25GE/40GE/100GE), or optical ports on the card (10GE/25GE/40GE/100GE)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 297 W (without card) 100% PoE loads: 2013 W (PoE: 1632 W, without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	210 W (without card)

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to 40°C (23°F to 104°F) when it uses QSFP-100G-ER4 optical module.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	<ul style="list-style-type: none"> • Dual AC 600 W, 30% load: 49.2 dBA • Dual AC 1000 W, 30% load: 51.2 dBA • Dual-DC 1000 W, 30% load: 51.2 dBA
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353SJT-020 02353SJT-021 02353SJT-023 02353SJT-024

4.29.7 S5732-H48XUM2CC (02353MLH/02353MLH-001/02353MLH-002)

Version Mapping

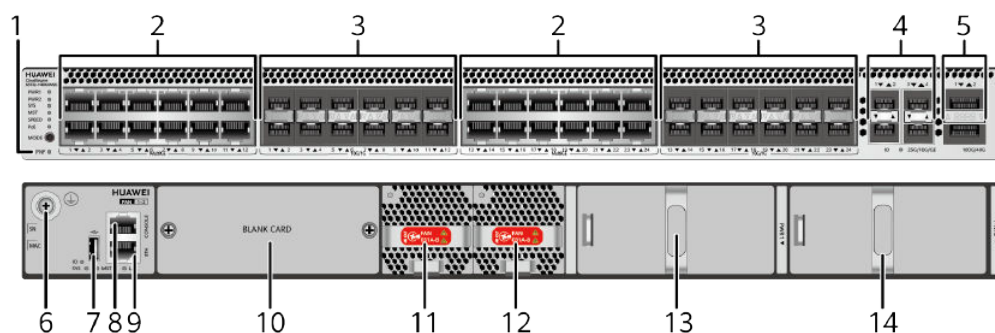
Table 4-1561 lists the mapping between the S5732-H48XUM2CC chassis and software versions.

Table 4-1561 Version mapping

Series	Model	Software Version
S5732-H	S5732-H48XUM2CC	02353MLH: V200R019C20 and later versions 02353MLH-001: V200R021C10 and later versions 02353MLH-002: V200R023C10 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-588 S5732-H48XUM2CC appearance



<p>1</p> <p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	<p>2</p> <p>Twenty-four PoE++ 100M/1000M/2.5GE/5GE/10GE BASE-T ports (multi-GE ports)</p> <p>NOTE</p> <p>The S5732-H48XUM2CC is a hybrid optical-electrical switch. You can use one multi-GE port and one 10GE SFP+ optical port together by connecting them through a hybrid cable. This cable is composed of copper cores terminated on RJ45 connectors and optical fibers terminated on LC connectors. The typical application scenario is as follows:</p> <ul style="list-style-type: none"> • The copper cores connect a multi-GE port of a switch to a PoE_IN port of an AP to allow the switch to supply power to the AP while no data is transmitted over this cable. • The optical fibers connect a SFP+ optical port on the switch to a SFP+ optical port of the AP to transmit data.
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3	<p>Twenty-four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module ● GE copper module ● 10GE SFP+ optical module (OSXD22N00 not supported) ● 10GE-CWDM optical module ● 10GE-DWDM optical module ● 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● 0.5 m and 1.5 m SFP+ dedicated stack cables (supported by the last 16 SFP+ ports and used only for zero-configuration stacking) ● First-generation Hybrid Cable <p>NOTE</p> <p>It is recommended that optical fibers in the first-generation hybrid cables be fusion spliced onsite. If you assemble optical fibers in hybrid cables in mechanical splicing mode, only SFP-10G-iLR-S optical modules are supported.</p>	4	<p>Four 1GE/10GE/25GE SFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module ● GE copper module (100M/1000M auto-sensing) ● 10GE SFP+ optical module (OSXD22N00 not supported) ● 10GE-CWDM optical module ● 10GE-DWDM optical module ● 25GE SFP28 Optical Module ● 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● 1 m, 3 m, and 5 m SFP28 high-speed copper cables ● 3 m, 5 m, 7 m, and 10 m SFP28 AOC cables
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5	<p>Two 40GE/100GE QSFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • QSFP28 optical module • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables • 10 m QSFP+ AOC cable • 1 m, 3 m, and 5 m QSFP28 high-speed copper cables • 10 m QSFP28 AOC cable • 2 m QSFP28 dedicated stack cable (supported in V200R020C10 and later versions) <p>NOTE</p> <p>You can run the set device port-config-mode enable command to change the working mode of SFP28 and QSFP28 optical ports. By default, the working mode of SFP28 and QSFP28 optical ports is "4 x 25GE + 2 x 40GE".</p> <p>If any QSFP28 optical port is configured to work at 100 Gbit/s or split into four 25GE ports, the four SFP28 optical ports become unavailable.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	One USB port	8	One console port
9	One ETH management port	10	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • S7X08000 • S7Y08000 • S7Q02001 (02313UBW) (applicable in V200R022C00 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R022C00 and later versions) • S7C02000 (applicable in V200R022C00 and later versions)
11	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>	12	<p>Fan module slot 2</p> <p>NOTE</p> <p>Applicable fan module: 7.5 FAN-031A-B (Fan box(B,FAN panel side exhaust))</p>

1 3	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions) 	1 4	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions)
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Port Description

100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port)

A 100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s, and must use an [Ethernet cable](#). If the 2.5 Gbit/s or 5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. If the 10 Gbit/s speed is required, the port must use an Ethernet cable of Cat6A F/UTP or higher category. [Table 4-1562](#) describes the attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port.

Table 4-1562 Attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, IEEE802.3an
Working Mode	100/1000/2500/5000/10000 Mbit/s auto-sensing

[Table 4-1563](#) lists the maximum transmission distances of different cables on multi-GE ports.

Table 4-1563 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m	<ul style="list-style-type: none"> • 55 m • 100 m (6-a-1 bundle only for the first 30 m) Not recommended due to high risk	Not supported
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m	100 m	Not supported
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m	100 m	Not supported
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m	100 m	100 m

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

If a port works at a rate of 5 Gbit/s, you are advised not to use unshielded Ethernet cables due to the following causes:

- 802.3bz requires that the ALSNR value for alien crosstalk between Ethernet cables be greater than 0, but the standards for Cat5e and Cat6 unshielded twisted pairs do not specify the required ALSNR value. Therefore, such cables may not meet the crosstalk requirement in 802.3bz, causing severe problems such as continuous packet loss or port flapping may occur.
- According the cabling specification TIA TSB-5021, using Cat5e and Cat6 cables for 5G poses high risks.
- Currently, no clear onsite testing or evaluation method is available for checking whether ALSNR of cables conforms to 802.3bz.

If a port works at a rate of 5 Gbit/s and a Cat6 shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL Class E (+All) or TIA Cat 6 Channel (+All). If a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If a port works at a rate of 10 Gbit/s and a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If Cat5e and Cat6 unshielded twisted pairs do not meet the 5G requirement, you are advised to replace them with shielded twisted pairs or reduce the rate of ports to 2.5G.

If Cat5E, Cat6, or Cat6A unshielded twisted pairs are used on electrical ports working at 10 Gbit/s, severe problems such as continuous packet loss or port flapping may occur.

The PoE power supply capability and distance of multi-GE ports on the S5732-H48XUM2CC vary depending on the power supply medium, as listed in [Table 4-1564](#).

Table 4-1564 PoE power supply capabilities of multi-GE ports when different power supply media are used

Power Supply Medium (Cable Diameter)	Power Received by an AP	AP-Side Voltage	Maximum Power Supply Distance
Category 5e Ethernet cable (AWG23)	53 W (class 6)	47.2 V	100 m
	51 W (class 6)	45.0 V	150 m
Category 6 or 6A Ethernet cable (AWG24)	55 W (class 6)	47.2 V	100 m
	52 W (class 6)	45.0 V	150 m
Hybrid cable (1.5 mm ²)	57 W (class 6)	52.2 V	100 m
	55 W (class 6)	50.8 V	150 m
	54 W (class 6)	50.0 V	180 m
	54 W (class 6)	49.4 V	200 m

Power Supply Medium (Cable Diameter)	Power Received by an AP	AP-Side Voltage	Maximum Power Supply Distance
	52 W (class 6)	48.0 V	250 m
	51 W (class 6)	46.5 V	300 m

 **NOTE**

An AP can receive a maximum of 57 W power from a multi-GE port within the power supply distance of 100 m.

When a common Cat6A shielded cable is used for both PoE power supply and data transmission (10 Gbit/s), the maximum power supply distance is 100 m in compliance with 802.3bt.

When a common Cat5E, Cat6, or Cat6A Ethernet cable is used only for PoE power supply and optical fibers are used for data transmission, the maximum power supply distance is 150 m in compliance with 802.3bt.

A hybrid cable supplies PoE power to specific AP models through its copper cores and transmits data through its optical fibers. For details about the AP models to which hybrid cables can supply power, see the WLAN AP product documentation.

A hybrid cable cannot be used to supply power to dual-signature APs.

A hybrid cable can offer the power supply capabilities listed in [Table 4-1564](#) only when the impedance of its copper cores is within 12.8 ohms/km. If the impedance exceeds this value, the power supply capabilities (power received by and voltage of the AP) will decrease.

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1565](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1565 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

1GE/10GE/25GE SFP28 optical port

A 1GE/10GE/25GE SFP28 optical port sends and receives service data at 1 Gbit/s, 10 Gbit/s, or 25 Gbit/s. [Table 4-1521](#) describes the attributes of a 1GE/10GE/25GE SFP28 optical port.

Table 4-1566 Attributes of a 1GE/10GE/25GE SFP28 optical port

Attribute	Description
Connector Type	LC/PC
Optical port attributes	Depending on the optical module or cable in use
Standards compliance	IEEE802.3z, IEEE802.3ae, and IEEE802.3by
Working mode	<ul style="list-style-type: none"> When a 25GE optical module or cable is connected to a port, the port can automatically adjust its rate to 25 Gbit/s. When a 10GE optical module or cable is connected to a port, the port can automatically adjust its rate to 10 Gbit/s. Before installing a GE optical module or copper module on a port, run the port mode ge command to configure the port to work at 1 Gbit/s.

40GE/100GE QSFP28 optical port

A 40GE/100GE QSFP28 optical port sends and receives service traffic at 40 Gbit/s or 100 Gbit/s. [Table 4-1567](#) describes the attributes of a QSFP28 optical port.

Table 4-1567 Attributes of a QSFP28 optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1568](#).

Table 4-1568 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1569](#) describes the attributes of an ETH management port.

Table 4-1569 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5732-H48XUM2CC has the same types of indicators as the S5732-H24UM2CC. For details, see [Indicator Description](#).

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1570 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	598 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 19 802.3bt (60 W per port): 9
1000 W AC (110 V)	–	503 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 16 802.3bt (60 W per port): 8
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 24
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1358 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 22

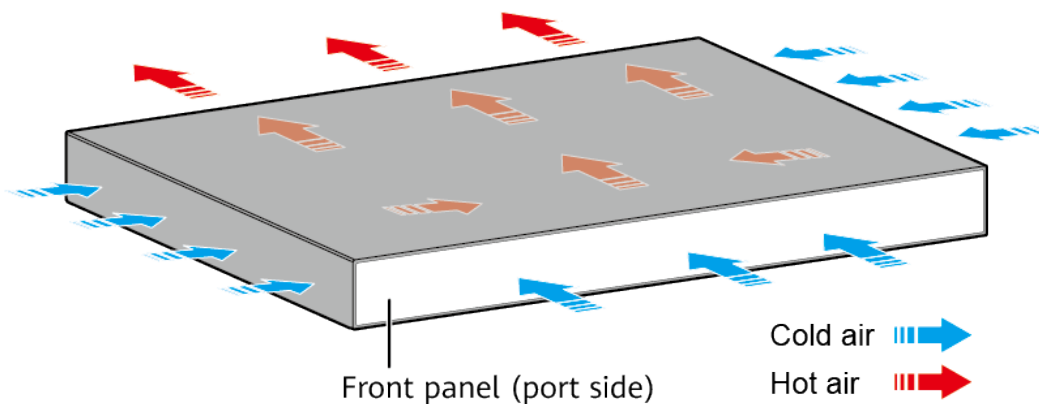
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (220 V)	–	218 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 14 802.3at (30 W per port): 7 802.3bt (60 W per port): 3
600 W AC (220 V)	600 W AC (220 V)	788 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 13
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1168 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 19

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5732-H48XUM2CC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1571 lists technical specifications of the S5732-H48XUM2CC.

Table 4-1571 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	32.38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (including package)	8.2 kg (18.08 lb)
Stack ports	Any Ethernet electrical ports (10GE), optical ports on the front panel (10GE/25GE/40GE/100GE), or optical ports on the card (10GE/25GE/40GE/100GE)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC

Item	Description
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Not providing the PoE function: 338 W (without card) ● 100% PoE loads: 1980 W (PoE: 1440 W, without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	231 W (without card)
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to 40°C (23°F to 104°F) when it uses QSFP-100G-ER4 optical module.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 63.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	<p>02353MLH</p> <p>02353MLH-001</p> <p>02353MLH-002</p>

4.30 S5735-L

4.30.1 S5735-L12T4S-A

Version Mapping

Table 4-1572 lists the mapping between the S5735-L12T4S-A chassis and software versions.

Table 4-1572 Version mapping

Series	Model	Software Version
S5735-L	S5735-L12T4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-589 S5735-L12T4S-A appearance



1	Twelve 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1573](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1573 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1574](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1574 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1575](#).

Table 4-1575 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1576](#) describes the attributes of an ETH management port.

Table 4-1576 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735-L12T4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735-L12T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L12T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L12T4S-A has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-1577](#) lists technical specifications of the S5735-L12T4S-A.

Table 4-1577 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	98.6 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	3.83 kg (8.44 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	29 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	23 W

Item	Description
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010918

4.30.2 S5735-L12P4S-A

Version Mapping

[Table 4-1578](#) lists the mapping between the S5735-L12P4S-A chassis and software versions.

Table 4-1578 Version mapping

Series	Model	Software Version
S5735-L	S5735-L12P4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-590 S5735-L12P4S-A appearance



1	Twelve PoE+ 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1579](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1579 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1580](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1580 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1581](#).

Table 4-1581 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1582](#) describes the attributes of an ETH management port.

Table 4-1582 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-591 Indicators on the S5735-L12P4S-A

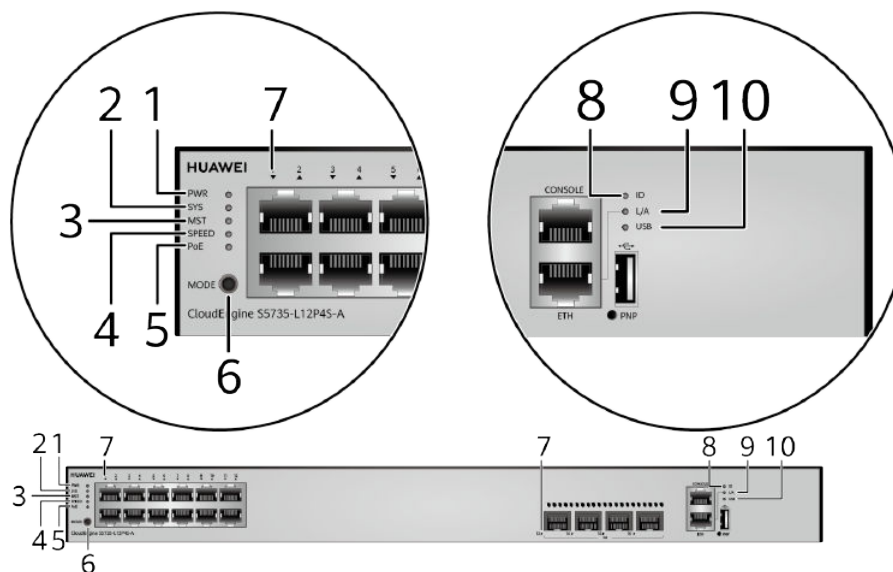


Table 4-1583 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none">If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled.If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
5	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
6	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>
7	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-1584 and Table 4-1585 .		
8	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
9	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
10	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1584 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).

Display Mode	Color	Status	Description
	Green and yellow	Blinking green and yellow alternately	<p>The port fails to supply power to a PD due to one of the following reasons:</p> <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.

Table 4-1585 Description of service port indicators in different modes (two indicators for each port)

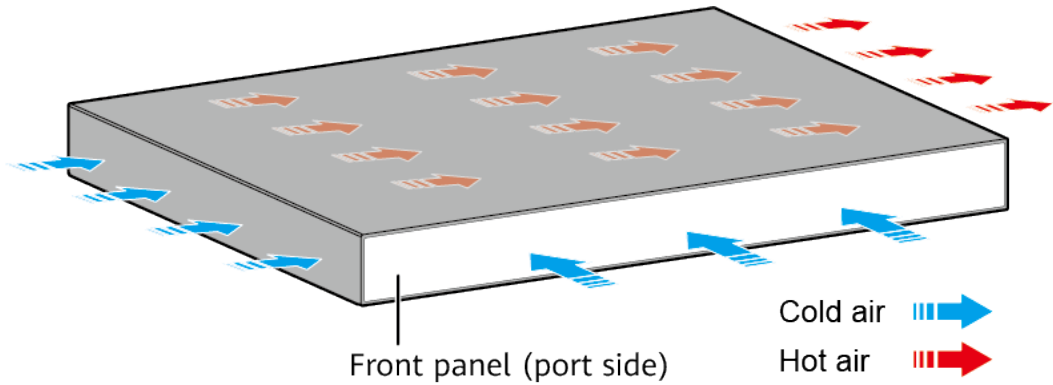
Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply Configuration

The S5735-L12P4S-A has a built-in power module and does not support pluggable power modules. The built-in power module can provide 360 W PoE power, which ensures full PoE power on 12 ports in compliance with 802.3af or 802.3at.

Heat Dissipation

The S5735-L12P4S-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1586](#) lists technical specifications of the S5735-L12P4S-A.

Table 4-1586 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.52 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.24 kg (9.35 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 49 W 100% PoE loads: 441 W (PoE: 360 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	38 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010922

4.30.3 S5735-L24T4S-A

Version Mapping

[Table 4-1587](#) lists the mapping between the S5735-L24T4S-A chassis and software versions.

Table 4-1587 Version mapping

Series	Model	Software Version
S5735-L	S5735-L24T4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-592 S5735-L24T4S-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1588](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1588 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1589](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1589 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1590](#).

Table 4-1590 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1591](#) describes the attributes of an ETH management port.

Table 4-1591 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735-L24T4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735-L24T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L24T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L24T4S-A has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-1592](#) lists technical specifications of the S5735-L24T4S-A.

Table 4-1592 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	111.94 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.08 kg (9 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	34 W
Typical power consumption (30% of traffic load)	28 W <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010914

4.30.4 S5735-L24P4S-A

Version Mapping

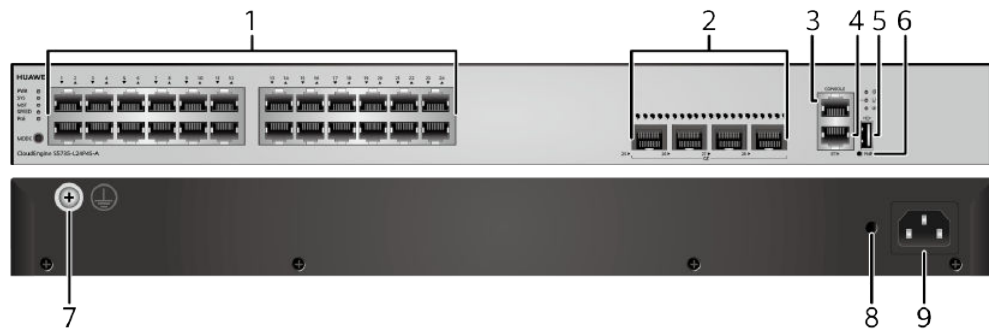
[Table 4-1593](#) lists the mapping between the S5735-L24P4S-A chassis and software versions.

Table 4-1593 Version mapping

Series	Model	Software Version
S5735-L	S5735-L24P4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-593 S5735-L24P4S-A appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1594](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1594 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1595](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1595 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1596](#).

Table 4-1596 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1597](#) describes the attributes of an ETH management port.

Table 4-1597 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

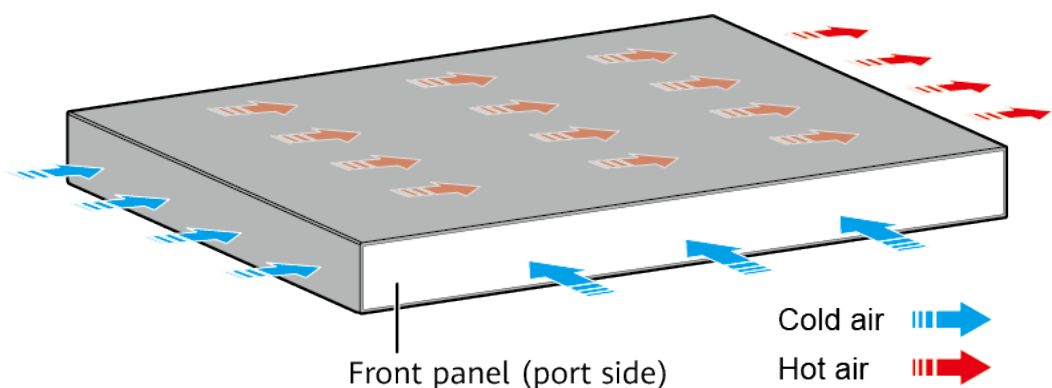
The S5735-L24P4S-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L24P4S-A has a built-in power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation

The S5735-L24P4S-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1598 lists technical specifications of the S5735-L24P4S-A.

Table 4-1598 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	92.2 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9. lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 53 W • 100% PoE loads: 451 W (PoE: 380 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	39 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010924

4.30.5 S5735-L24T4X-A

Version Mapping

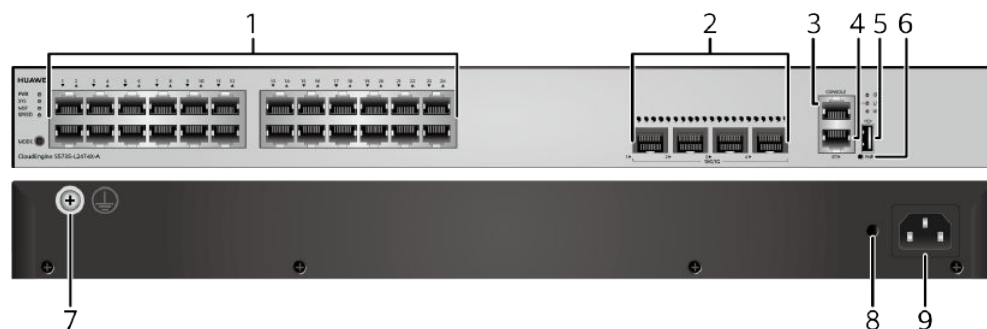
Table 4-1599 lists the mapping between the S5735-L24T4X-A chassis and software versions.

Table 4-1599 Version mapping

Series	Model	Software Version
S5735-L	S5735-L24T4X-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-594 S5735-L24T4X-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m and 3 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1600](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1600 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1601](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1601 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1602](#).

Table 4-1602 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1603](#) describes the attributes of an ETH management port.

Table 4-1603 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

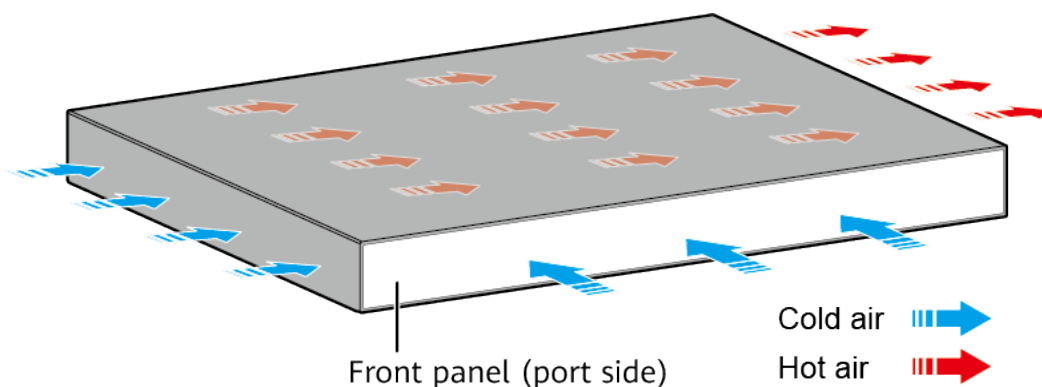
The S5735-L24T4X-A has similar indicators to those on the S5735-L12P4S-A except that the S5735-L24T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L24T4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L24T4X-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1604](#) lists technical specifications of the S5735-L24T4X-A.

Table 4-1604 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.68 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4 kg (8.82 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	43 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	27 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010920

4.30.6 S5735-L24T4X-D

Version Mapping

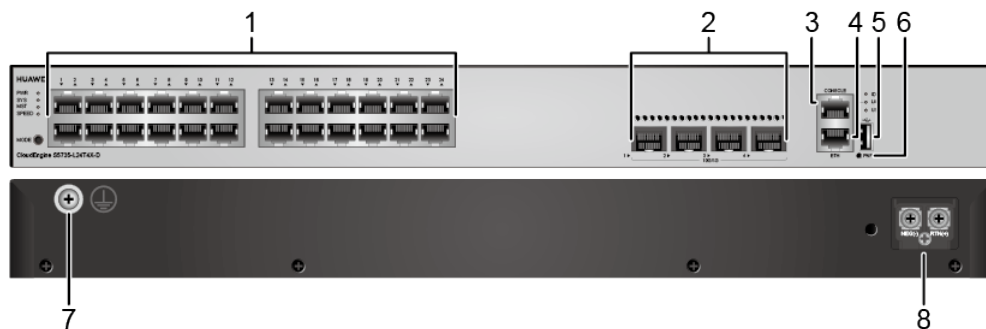
Table 4-1605 lists the mapping between the S5735-L24T4X-D chassis and software versions.

Table 4-1605 Version mapping

Series	Model	Software Version
S5735-L	S5735-L24T4X-D	V200R020C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-595 S5735-L24T4X-D appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	DC power terminal NOTE It is used with DC Power Cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 4-1606** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1606 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1607](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1607 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1608](#).

Table 4-1608 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1609](#) describes the attributes of an ETH management port.

Table 4-1609 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

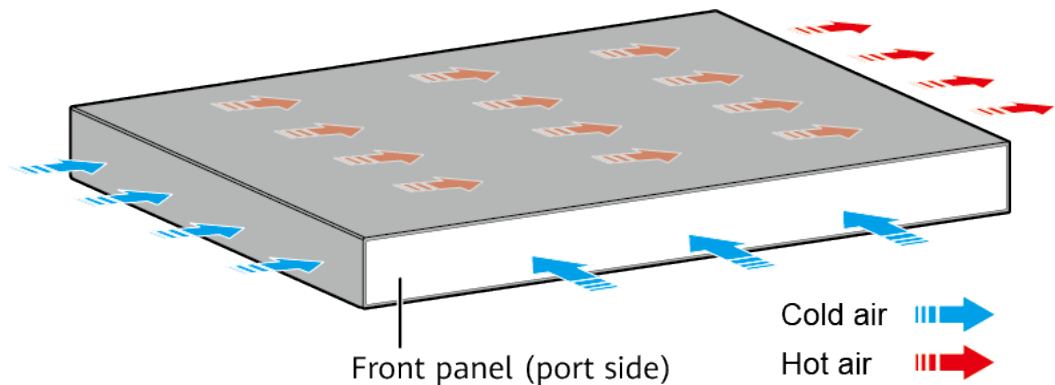
The S5735-L24T4X-D has similar indicators to those on the S5735-L12P4S-A except that the S5735-L24T4X-D does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L24T4X-D has a built-in DC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L24T4X-D has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1610](#) lists technical specifications of the S5735-L24T4X-D.

Table 4-1610 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.68 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999

Item	Description
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4 kg (8.82 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	43 W
Typical power consumption (30% of traffic load)	27 W <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010961

4.30.7 S5735-L24P4X-A

Version Mapping

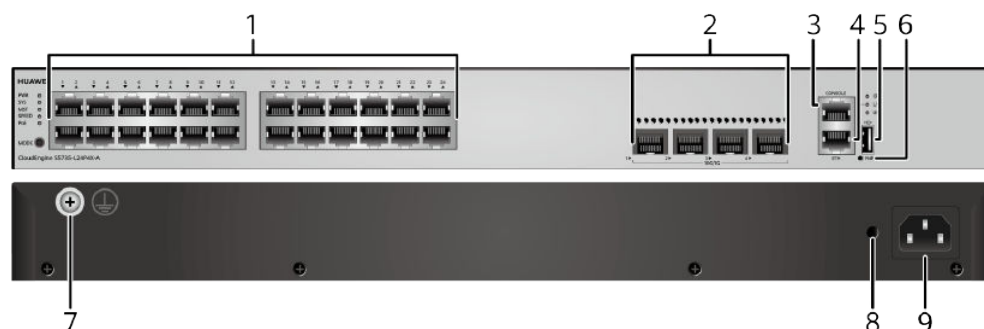
Table 4-1611 lists the mapping between the S5735-L24P4X-A chassis and software versions.

Table 4-1611 Version mapping

Series	Model	Software Version
S5735-L	S5735-L24P4X-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-596 S5735-L24P4X-A appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1612](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1612 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1613](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1613 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1614](#).

Table 4-1614 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1615](#) describes the attributes of an ETH management port.

Table 4-1615 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

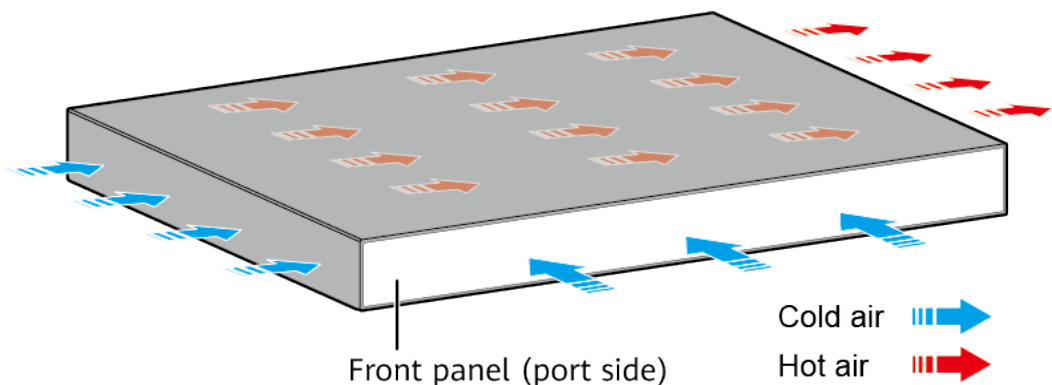
The S5735-L24P4X-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L24P4X-A has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation

The S5735-L24P4X-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1616](#) lists technical specifications of the S5735-L24P4X-A.

Table 4-1616 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	57.07 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9.5 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 56 W 100% PoE loads: 458 W (PoE: 380 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	43 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010927

4.30.8 S5735-L32ST4X-A

Version Mapping

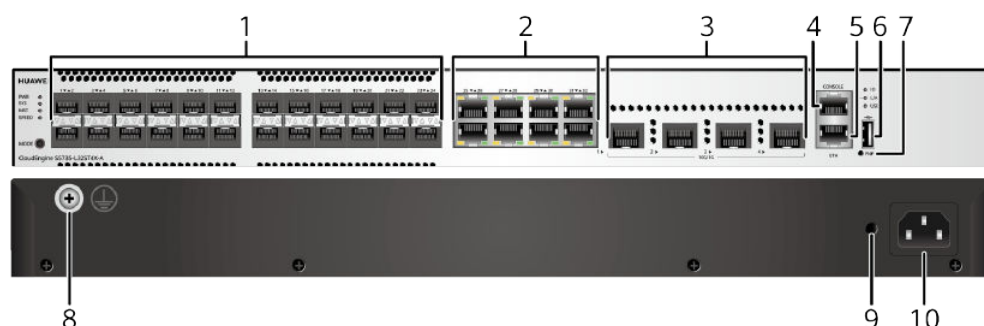
Table 4-1617 lists the mapping between the S5735-L32ST4X-A chassis and software versions.

Table 4-1617 Version mapping

Series	Model	Software Version
S5735-L	S5735-L32ST4X-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-597 S5735-L32ST4X-A appearance



1	Twenty-four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module (maximum transmission distance ≤ 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Eight 10/100/1000BASE-T ports
3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	8	Ground screw NOTE It is used with a ground cable .

9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	1 0	AC socket NOTE It is used with an AC power cable .
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Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-1618](#) describes the attributes of a 100/1000BASE-X port.

Table 4-1618 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1619](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1619 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1620](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1620 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1621](#).

Table 4-1621 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1622](#) describes the attributes of an ETH management port.

Table 4-1622 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-598 Indicators on the S5735-L32ST4X-A

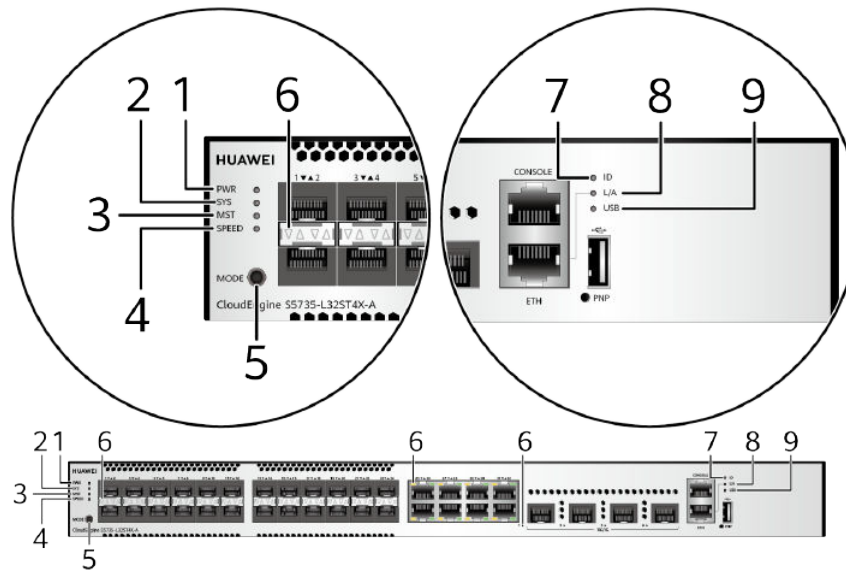


Table 4-1623 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press the button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED indicators are off.</p>
6	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-1624 and Table 4-1625 .		
7	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
8	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
9	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1624 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s.

Table 4-1625 Description of service port indicators in different modes (two indicators for each port)

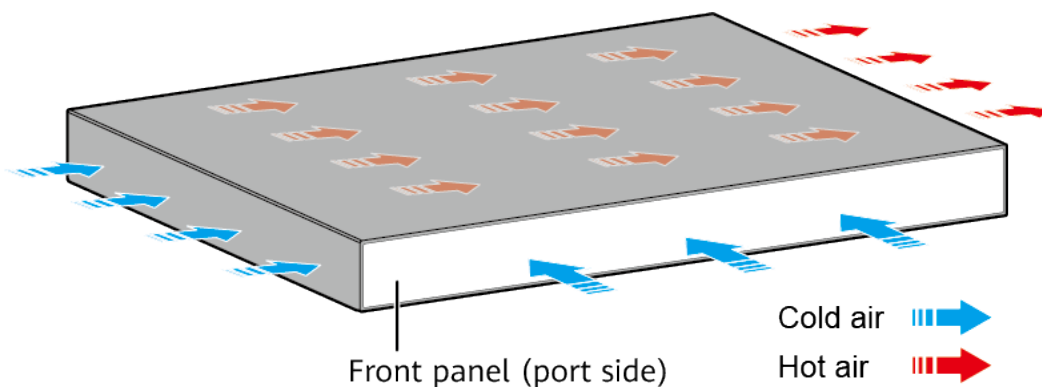
Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s.

Power Supply Configuration

The S5735-L32ST4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L32ST4X-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1626](#) lists technical specifications of the S5735-L32ST4X-A.

Table 4-1626 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.87 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9.5 lb)
Stack ports	Any 10/100/1000BASE-T ports, 100/1000BASE-X ports, or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	65 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	46 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010929

4.30.9 S5735-L32ST4X-D

Version Mapping

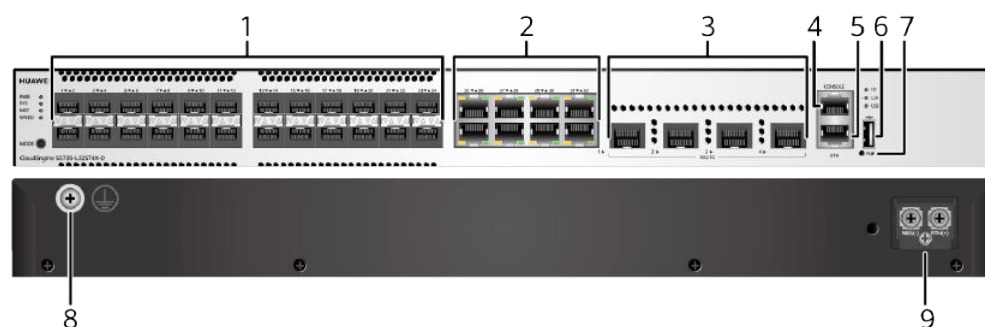
[Table 4-1627](#) lists the mapping between the S5735-L32ST4X-D chassis and software versions.

Table 4-1627 Version mapping

Series	Model	Software Version
S5735-L	S5735-L32ST4X-D	V200R020C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-599 S5735-L32ST4X-D appearance



1	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module (maximum transmission distance ≤ 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight 10/100/1000BASE-T ports</p>
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3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m and 3 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)	4	One console port
5	One ETH management port	6	One USB port
7	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	8	Ground screw NOTE It is used with a ground cable .
9	DC power terminal NOTE It is used with DC Power Cable .	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-1628](#) describes the attributes of a 100/1000BASE-X port.

Table 4-1628 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1629](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1629 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1630](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1630 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1631](#).

Table 4-1631 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1632](#) describes the attributes of an ETH management port.

Table 4-1632 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

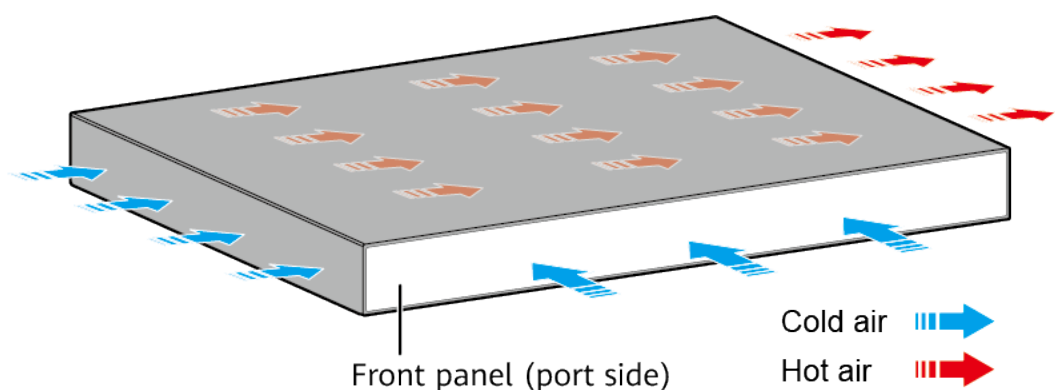
The S5735-L32ST4X-D has similar indicators to those on the S5735-L32ST4X-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L32ST4X-D has a built-in DC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L32ST4X-D has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1633](#) lists technical specifications of the S5735-L32ST4X-D.

Table 4-1633 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.87 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9.5 lb)
Stack ports	Any 10/100/1000BASE-T ports, 100/1000BASE-X ports, or 10GE SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	65 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	46 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010965

4.30.10 S5735-L48T4S-A

Version Mapping

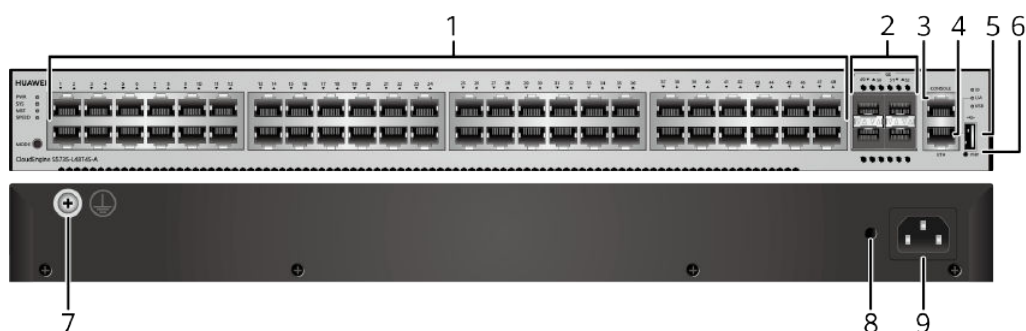
Table 4-1634 lists the mapping between the S5735-L48T4S-A chassis and software versions.

Table 4-1634 Version mapping

Series	Model	Software Version
S5735-L	S5735-L48T4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-600 S5735-L48T4S-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1635](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1635 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1636](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1636 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1637](#).

Table 4-1637 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1638](#) describes the attributes of an ETH management port.

Table 4-1638 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

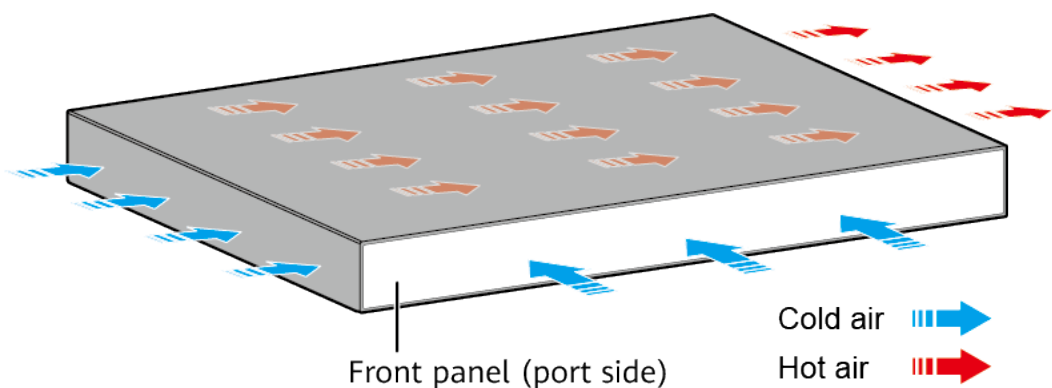
The S5735-L48T4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735-L48T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L48T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L48T4S-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1639](#) lists technical specifications of the S5735-L48T4S-A.

Table 4-1639 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.36 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	53 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	37 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010933

4.30.11 S5735-L48T4X-A

Version Mapping

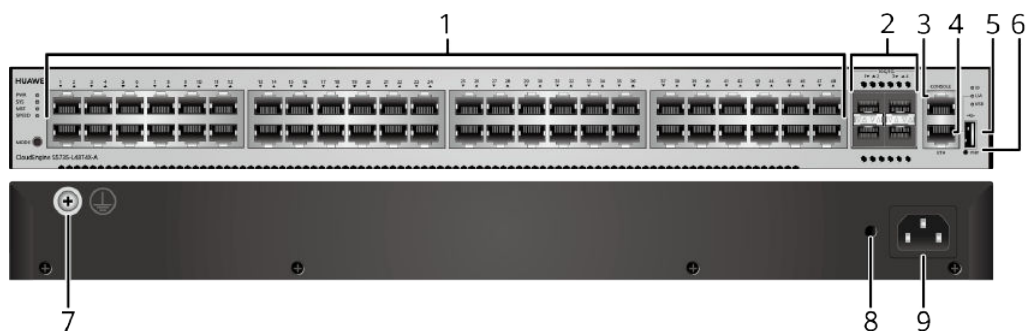
Table 4-1640 lists the mapping between the S5735-L48T4X-A chassis and software versions.

Table 4-1640 Version mapping

Series	Model	Software Version
S5735-L	S5735-L48T4X-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-601 S5735-L48T4X-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1641](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1641 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1642](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1642 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1643](#).

Table 4-1643 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1644](#) describes the attributes of an ETH management port.

Table 4-1644 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

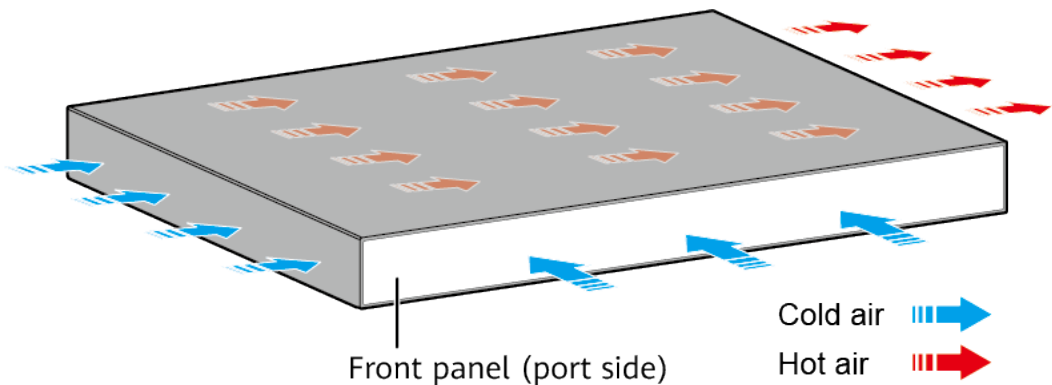
The S5735-L48T4X-A has similar indicators to those on the S5735-L12P4S-A except that the S5735-L48T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L48T4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L48T4X-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1645](#) lists technical specifications of the S5735-L48T4X-A.

Table 4-1645 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41.48 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	54 W

Item	Description
<p>Typical power consumption (30% of traffic load)</p> <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<p>39 W</p>
<p>Operating temperature</p>	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when it uses 10GE SFP+ optical modules with 40 km or longer transmission distances.</p>
<p>Short-term operating temperature</p>	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
<p>Storage temperature</p>	<p>-40°C to +70°C (-40°F to +158°F)</p>

Item	Description
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010936

4.30.12 S5735-L48P4X-A

Version Mapping

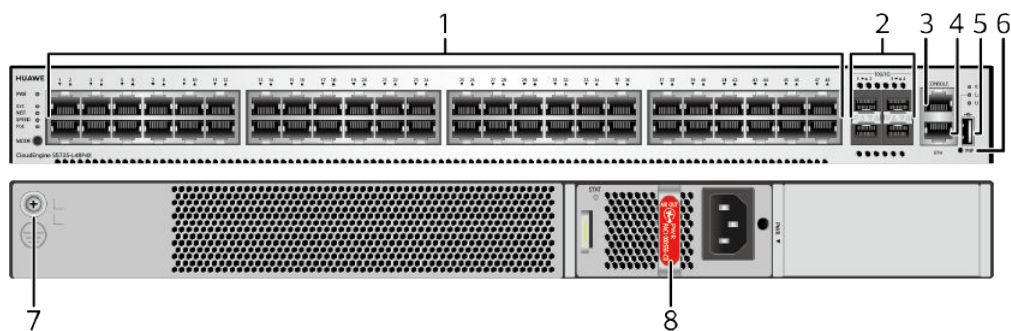
[Table 4-1646](#) lists the mapping between the S5735-L48P4X-A chassis and software versions.

Table 4-1646 Version mapping

Series	Model	Software Version
S5735-L	S5735-L48P4X-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-602 S5735-L48P4X-A appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions)
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1647](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1647 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1648](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1648 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1649](#).

Table 4-1649 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1650](#) describes the attributes of an ETH management port.

Table 4-1650 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735-L48P4X-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L48P4X-A is a PoE switch. It has one power module slot, which can have a 1000 W PoE power module installed. [Table 4-1651](#) lists its power supply configurations.

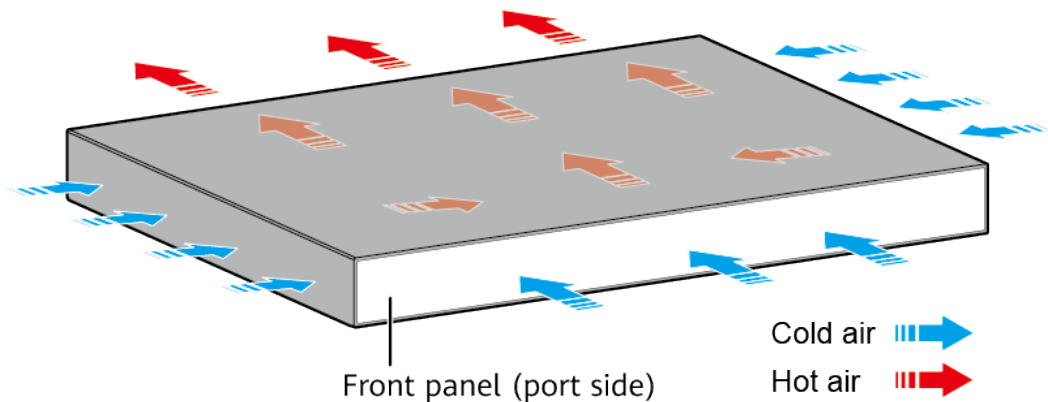
Table 4-1651 Power supply configurations

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	874 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 48802.3at (30 W per port): 29

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (110 V)	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25

Heat Dissipation

The S5735-L48P4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1652](#) lists technical specifications of the S5735-L48P4X-A.

Table 4-1652 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	61.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.7 kg (19.18 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 80 W 100% PoE loads: 914 W (PoE: 874 W)
Typical power consumption (30% of traffic load)	59 W
<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	

Item	Description
Operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010944

4.31 S5735S-L

4.31.1 S5735S-L12T4S-A

Version Mapping

Table 4-1653 lists the mapping between the S5735S-L12T4S-A chassis and software versions.

Table 4-1653 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L12T4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-603 S5735S-L12T4S-A appearance



1	Twelve 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1654](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1654 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1655](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1655 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1656](#).

Table 4-1656 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1657](#) describes the attributes of an ETH management port.

Table 4-1657 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L12T4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L12T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L12T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L12T4S-A has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-1658](#) lists technical specifications of the S5735S-L12T4S-A.

Table 4-1658 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	98.6 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	3.83 kg (8.44 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	29 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	23 W

Item	Description
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010919

4.31.2 S5735S-L12P4S-A

Version Mapping

Table 4-1659 lists the mapping between the S5735S-L12P4S-A chassis and software versions.

Table 4-1659 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L12P4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-604 S5735S-L12P4S-A appearance



1	Twelve PoE+ 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> ● FE optical module (applicable in V200R021C00 and later versions) ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module ● GE copper module ● 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) ● 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) ● 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) ● 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1660](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1660 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1661](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1661 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1662](#).

Table 4-1662 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1663](#) describes the attributes of an ETH management port.

Table 4-1663 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

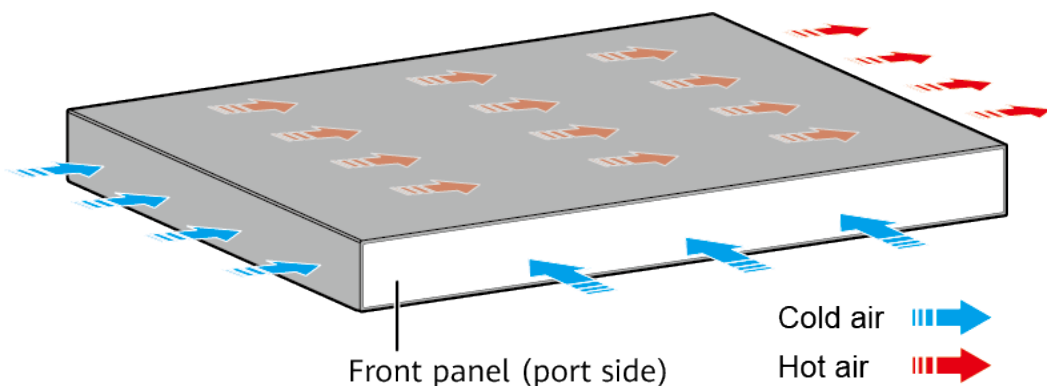
The S5735S-L12P4S-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L12P4S-A has a built-in power module and does not support pluggable power modules. The built-in power module can provide 360 W PoE power, which ensures full PoE power on 12 ports in compliance with 802.3af or 802.3at.

Heat Dissipation

The S5735S-L12P4S-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1664 lists technical specifications of the S5735S-L12P4S-A.

Table 4-1664 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.52 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.24 kg (9.35 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 49 W • 100% PoE loads: 441 W (PoE: 360 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	38 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010923

4.31.3 S5735S-L24FT4S-A

Version Mapping

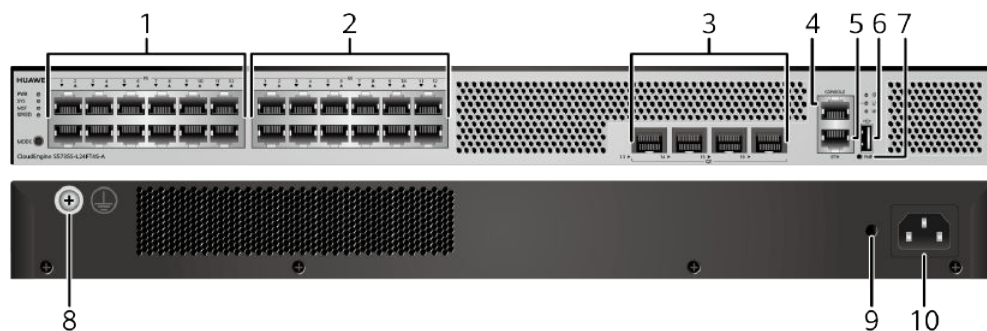
[Table 4-1665](#) lists the mapping between the S5735S-L24FT4S-A chassis and software versions.

Table 4-1665 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L24FT4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-605 S5735S-L24FT4S-A appearance



1	Twelve 10/100BASE-TX ports	2	Twelve 10/100/1000BASE-T ports
3	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	1 0	AC socket NOTE It is used with an AC power cable .
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Port Description

10/100BASE-TX port

A 10/100BASE-TX Ethernet electrical port sends and receives service data at 10/100 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1666](#) lists the attributes of a 10/100BASE-TX Ethernet electrical port.

Table 4-1666 Attributes of a 10/100BASE-TX Ethernet electrical port

Attribute	Item
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1667](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1667 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1668](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1668 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1669](#).

Table 4-1669 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1670](#) describes the attributes of an ETH management port.

Table 4-1670 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L24FT4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L24FT4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24FT4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L24FT4S-A has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-1671](#) lists technical specifications of the S5735S-L24FT4S-A.

Table 4-1671 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.89 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.08 kg (9 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 264 V AC, 47 Hz to 63 HzHigh-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	32 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	26 W
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> • -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> • -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification

Item	Description
Part number	98010917

4.31.4 S5735S-L24T4S-A

Version Mapping

Table 4-1672 lists the mapping between the S5735S-L24T4S-A chassis and software versions.

Table 4-1672 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L24T4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-606 S5735S-L24T4S-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1673](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1673 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1674](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1674 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1675](#).

Table 4-1675 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1676](#) describes the attributes of an ETH management port.

Table 4-1676 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L24T4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L24T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L24T4S-A has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-1677](#) lists technical specifications of the S5735S-L24T4S-A.

Table 4-1677 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	92.82 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.08 kg (9 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	34 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	28 W

Item	Description
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010915

4.31.5 S5735S-L24T4X-A

Version Mapping

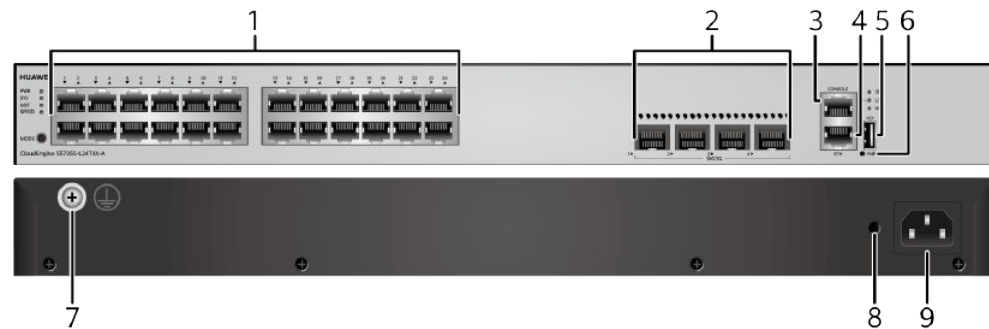
Table 4-1678 lists the mapping between the S5735S-L24T4X-A chassis and software versions.

Table 4-1678 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L24T4X-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-607 S5735S-L24T4X-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1679](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1679 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1680](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1680 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1681](#).

Table 4-1681 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1682](#) describes the attributes of an ETH management port.

Table 4-1682 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

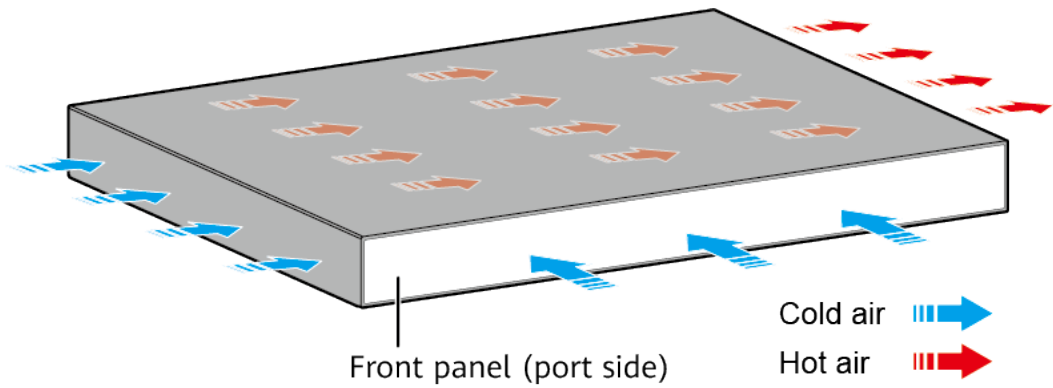
The S5735S-L24T4X-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L24T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24T4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L24T4X-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1683](#) lists technical specifications of the S5735S-L24T4X-A.

Table 4-1683 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.68 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4 kg (8.82 lb)

Item	Description
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	43 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	27 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010921

4.31.6 S5735S-L24P4S-A

Version Mapping

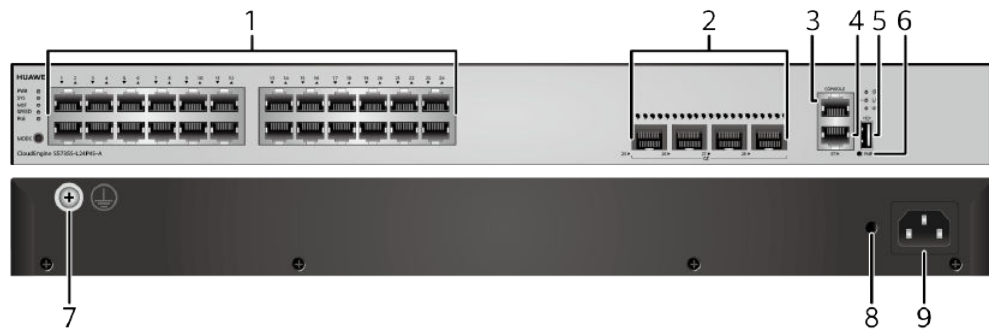
[Table 4-1684](#) lists the mapping between the S5735S-L24P4S-A chassis and software versions.

Table 4-1684 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L24P4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-608 S5735S-L24P4S-A appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1685](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1685 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1686](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1686 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1687](#).

Table 4-1687 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1688](#) describes the attributes of an ETH management port.

Table 4-1688 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

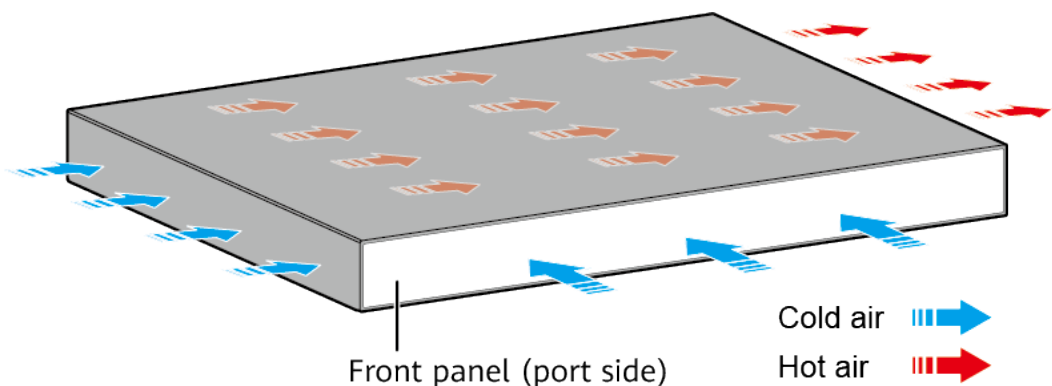
The S5735S-L24P4S-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24P4S-A has a built-in power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation

The S5735S-L24P4S-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1689 lists technical specifications of the S5735S-L24P4S-A.

Table 4-1689 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	92.2 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9. lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 53 W • 100% PoE loads: 451 W (PoE: 380 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	39 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010925

4.31.7 S5735S-L24P4X-A

Version Mapping

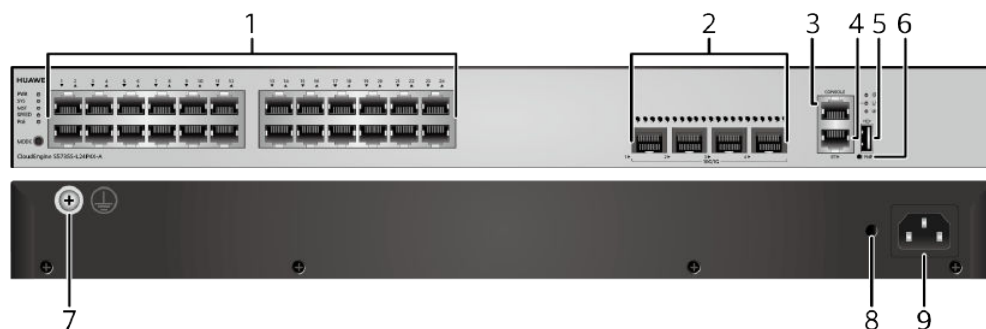
Table 4-1690 lists the mapping between the S5735S-L24P4X-A chassis and software versions.

Table 4-1690 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L24P4X-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-609 S5735S-L24P4X-A appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m and 3 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1691](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1691 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1692](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1692 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1693](#).

Table 4-1693 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1694](#) describes the attributes of an ETH management port.

Table 4-1694 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

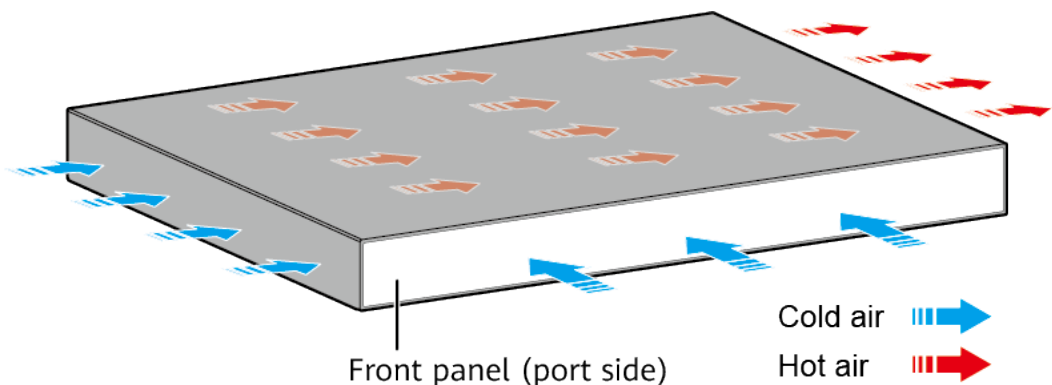
The S5735S-L24P4X-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24P4X-A has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation

The S5735S-L24P4X-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1695](#) lists technical specifications of the S5735S-L24P4X-A.

Table 4-1695 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	57.07 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9.5 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 56 W 100% PoE loads: 458 W (PoE: 380 W)

Item	Description
<p>Typical power consumption (30% of traffic load)</p> <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<p>43 W</p>
<p>Operating temperature</p>	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
<p>Short-term operating temperature</p>	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
<p>Storage temperature</p>	<p>-40°C to +70°C (-40°F to +158°F)</p>
<p>Noise under normal temperature (27°C, sound power)</p>	<p>< 57.7 dB(A)</p>
<p>Relative humidity</p>	<p>5% to 95%, noncondensing</p>

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010928

4.31.8 S5735S-L32ST4X-A

Version Mapping

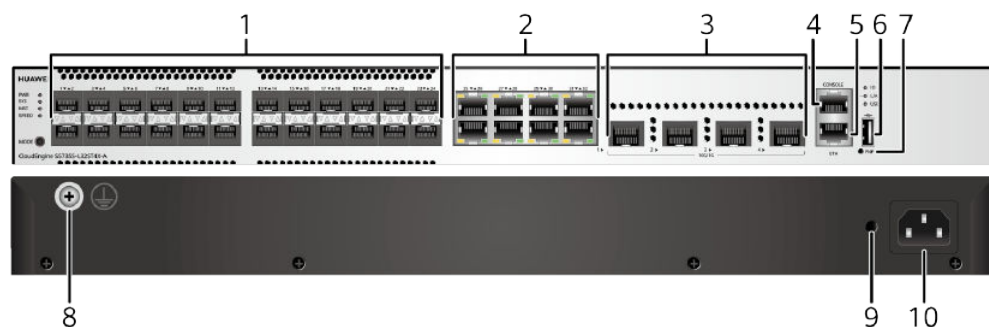
Table 4-1696 lists the mapping between the S5735S-L32ST4X-A chassis and software versions.

Table 4-1696 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L32ST4X-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-610 S5735S-L32ST4X-A appearance



1	Twenty-four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module (maximum transmission distance ≤ 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Eight 10/100/1000BASE-T ports
3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	8	Ground screw NOTE It is used with a ground cable .

9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	1 0	AC socket NOTE It is used with an AC power cable .
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Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-1697](#) describes the attributes of a 100/1000BASE-X port.

Table 4-1697 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1698](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1698 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1699](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1699 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1700](#).

Table 4-1700 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1701](#) describes the attributes of an ETH management port.

Table 4-1701 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

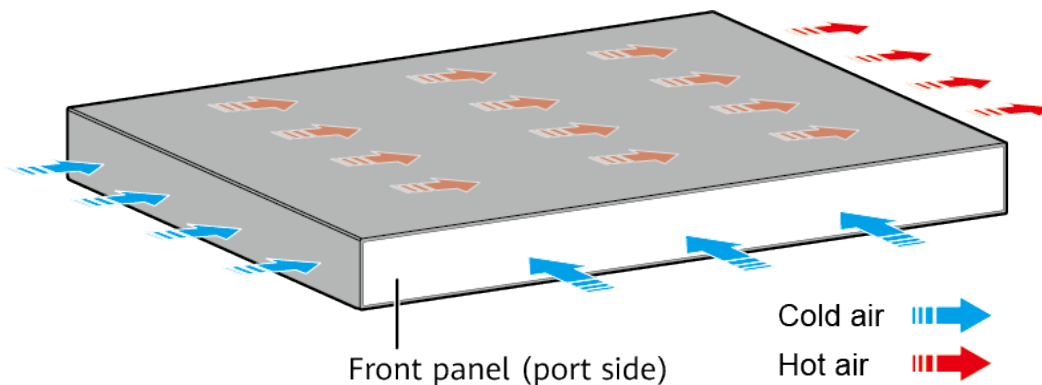
The S5735S-L32ST4X-A has the same types of indicators as the S5735-L32ST4X-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L32ST4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L32ST4X-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1702](#) lists technical specifications of the S5735S-L32ST4X-A.

Table 4-1702 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.87 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9.5 lb)

Item	Description
Stack ports	Any 10/100/1000BASE-T ports, 100/1000BASE-X ports, or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	65 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	46 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010930

4.31.9 S5735S-L48FT4S-A

Version Mapping

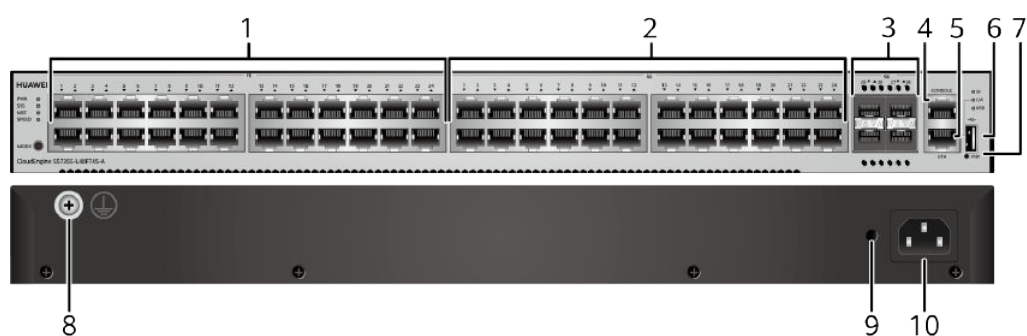
[Table 4-1703](#) lists the mapping between the S5735S-L48FT4S-A chassis and software versions.

Table 4-1703 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L48FT4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-611 S5735S-L48FT4S-A appearance



1	Twenty-four 10/100BASE-TX ports	2	Twenty-four 10/100/1000BASE-T ports
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3	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	1 0	AC socket NOTE It is used with an AC power cable .
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Port Description

10/100BASE-TX port

A 10/100BASE-TX Ethernet electrical port sends and receives service data at 10/100 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1704](#) lists the attributes of a 10/100BASE-TX Ethernet electrical port.

Table 4-1704 Attributes of a 10/100BASE-TX Ethernet electrical port

Attribute	Item
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1705](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1705 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1706](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1706 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1707](#).

Table 4-1707 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1708](#) describes the attributes of an ETH management port.

Table 4-1708 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

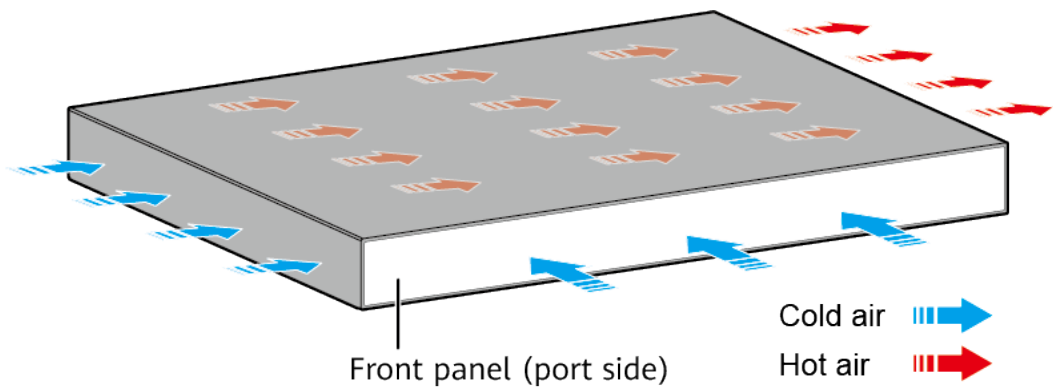
The S5735S-L48FT4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L48FT4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L48FT4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L48FT4S-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1709 lists technical specifications of the S5735S-L48FT4S-A.

Table 4-1709 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.68 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)

Item	Description
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 264 V AC, 47 Hz to 63 HzHigh-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	44 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">Tested according to ATIS standardEEE enabledNo PoE power consumption	30 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010935

4.31.10 S5735S-L48T4S-A

Version Mapping

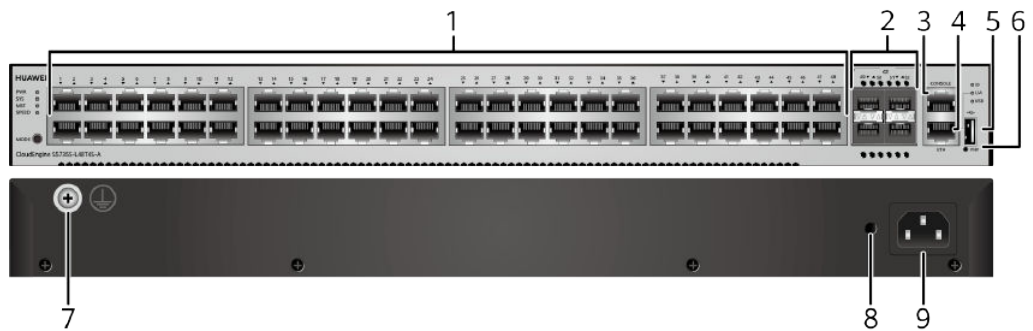
Table 4-1710 lists the mapping between the S5735S-L48T4S-A chassis and software versions.

Table 4-1710 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L48T4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-612 S5735S-L48T4S-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1711](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1711 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1712](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1712 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1713](#).

Table 4-1713 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1714](#) describes the attributes of an ETH management port.

Table 4-1714 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

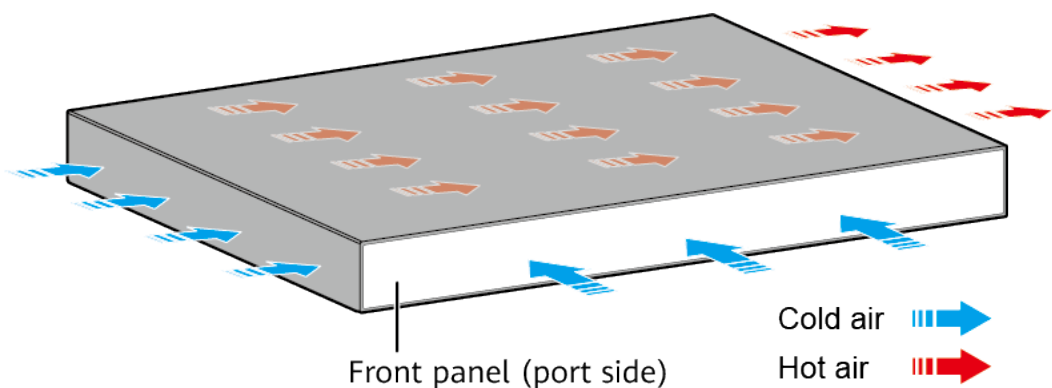
The S5735S-L48T4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L48T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L48T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L48T4S-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1715](#) lists technical specifications of the S5735S-L48T4S-A.

Table 4-1715 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.36 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	53 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	37 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010934

4.31.11 S5735S-L48T4X-A

Version Mapping

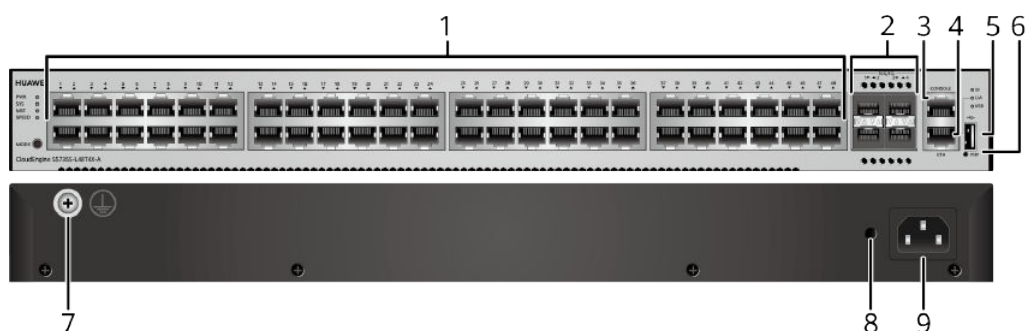
Table 4-1716 lists the mapping between the S5735S-L48T4X-A chassis and software versions.

Table 4-1716 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L48T4X-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-613 S5735S-L48T4X-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m and 3 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1717](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1717 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1718](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1718 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1719](#).

Table 4-1719 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1720](#) describes the attributes of an ETH management port.

Table 4-1720 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

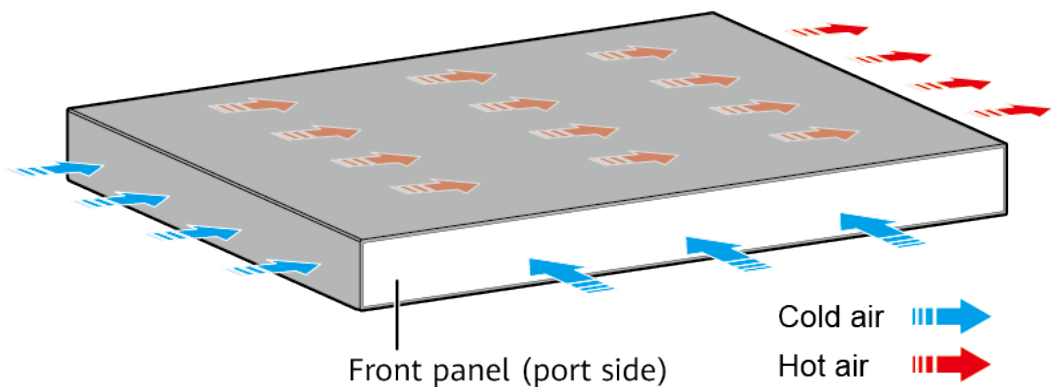
The S5735S-L48T4X-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L48T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L48T4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L48T4X-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1721](#) lists technical specifications of the S5735S-L48T4X-A.

Table 4-1721 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41.48 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	54 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	39 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when it uses 10GE SFP+ optical modules with 40 km or longer transmission distances.
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010937

4.31.12 S5735S-L48P4S-A

Version Mapping

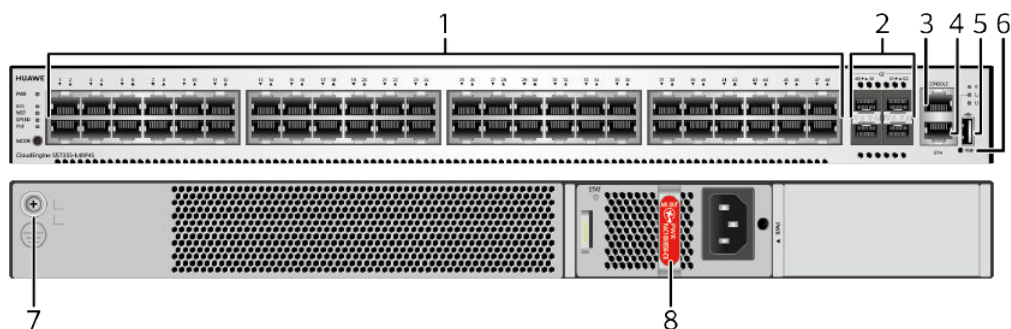
[Table 4-1722](#) lists the mapping between the S5735S-L48P4S-A chassis and software versions.

Table 4-1722 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L48P4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-614 S5735S-L48P4S-A appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions)
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1723](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1723 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1724](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1724 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1725](#).

Table 4-1725 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1726](#) describes the attributes of an ETH management port.

Table 4-1726 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3

Attribute	Description
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L48P4S-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

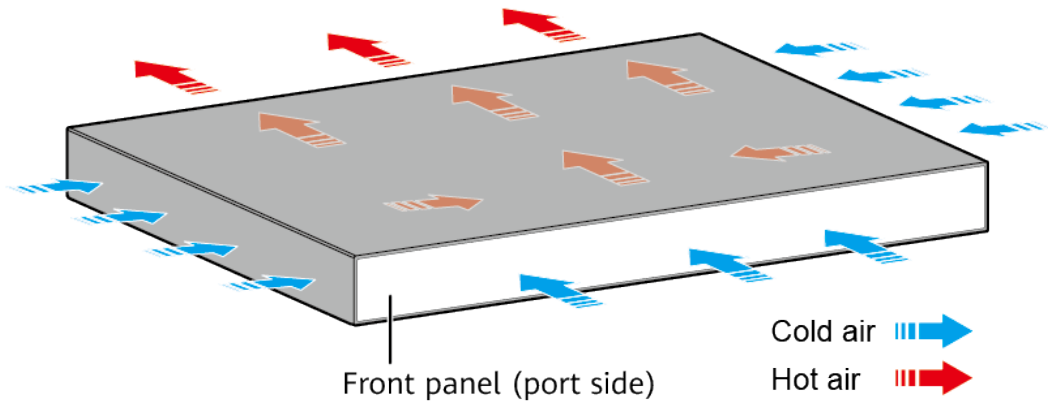
The S5735S-L48P4S-A is a PoE switch. It has one power module slot, which can have a 1000 W PoE power module installed. [Table 4-1727](#) lists its power supply configurations.

Table 4-1727 Power supply configurations

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	874 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W AC (110 V)	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25

Heat Dissipation

The S5735S-L48P4S-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1728](#) lists technical specifications of the S5735S-L48P4S-A.

Table 4-1728 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	61.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.7 kg (19.18 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Not providing the PoE function: 75 W ● 100% PoE loads: 911 W (PoE: 874 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	58 W

Item	Description
Operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010946

4.31.13 S5735S-L48P4X-A

Version Mapping

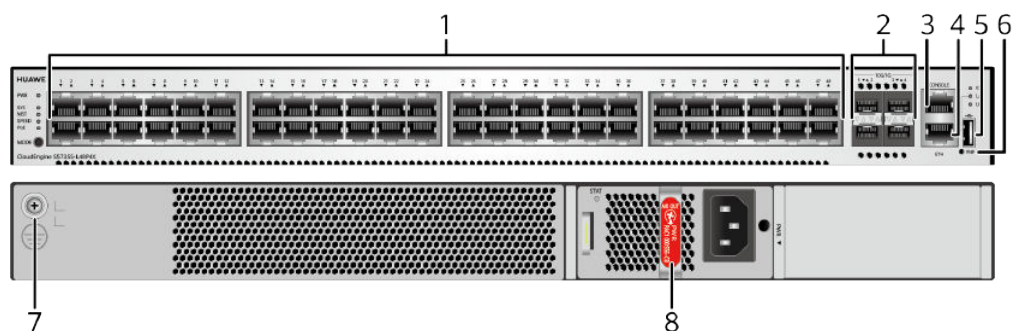
Table 4-1729 lists the mapping between the S5735S-L48P4X-A chassis and software versions.

Table 4-1729 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L48P4X-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-615 S5735S-L48P4X-A appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m and 3 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions)
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1730](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1730 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1731](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1731 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1732](#).

Table 4-1732 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1733](#) describes the attributes of an ETH management port.

Table 4-1733 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L48P4X-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L48P4X-A is a PoE switch. It has one power module slot, which can have a 1000 W PoE power module installed. [Table 4-1734](#) lists its power supply configurations.

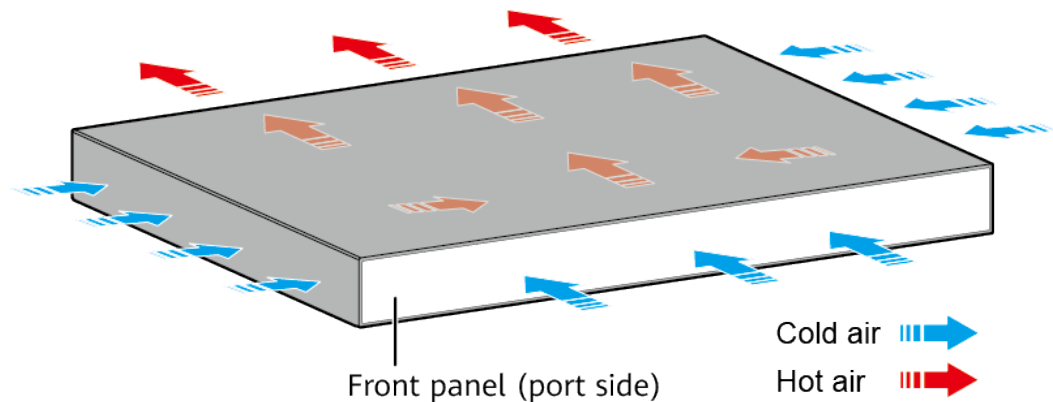
Table 4-1734 Power supply configurations

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	874 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (110 V)	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25

Heat Dissipation

The S5735S-L48P4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1735](#) lists technical specifications of the S5735S-L48P4X-A.

Table 4-1735 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	61.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.7 kg (19.18 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 80 W 100% PoE loads: 914 W (PoE: 874 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	59 W

Item	Description
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010945

4.32 S5735-L1

4.32.1 S5735-L8T4S-A1 (98011284)

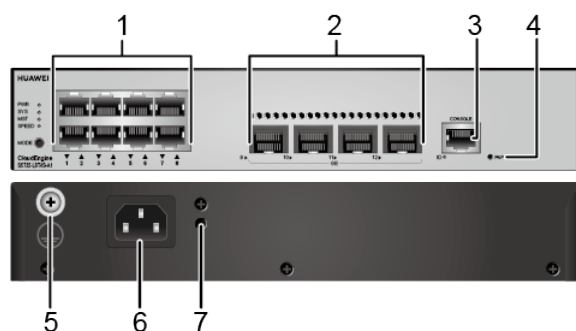
Overview

Table 4-1736 Basic information about the S5735-L8T4S-A1

Item	Details
Description	S5735-L8T4S-A1 (8*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
Part Number	98011284
Model	S5735-L8T4S-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-616 S5735-L8T4S-A1 appearance



1	Eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	AC socket NOTE It is used with an AC power cable .
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	-	-

Ports

Table 4-1737 Ports on the S5735-L8T4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported) ● 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules (only used for stack connection) ● 10GE-DWDM SFP+ optical modules (only

Port	Connector Type	Description	Available Components
			<p>used for stack connection)</p> <ul style="list-style-type: none"> • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m SFP+ AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735-L8T4S-A1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L8T4S-A1 does not have USB and PoE mode indicators. For details, see the S5735-L24P4X-A1.

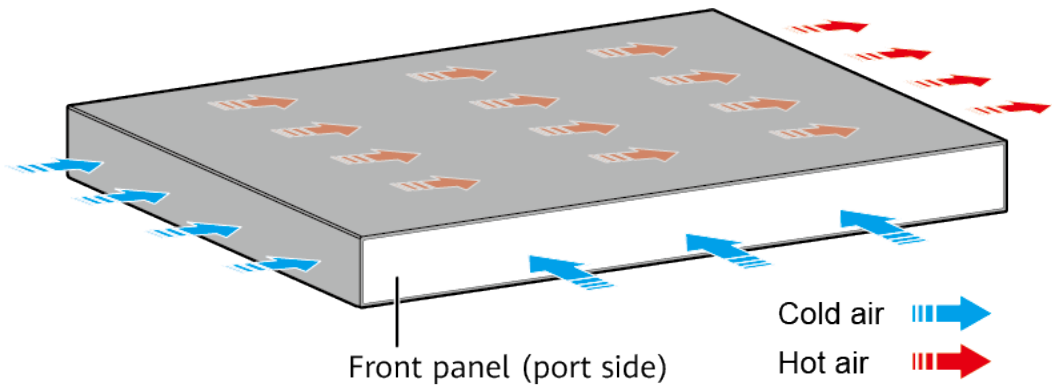
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1738 Technical specifications of the S5735-L8T4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.84 in. x 7.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 187.0 mm (1.72 in. x 9.84 in. x 7.36 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 370.0 mm x 380.0 mm (3.54 in. x 14.57 in. x 14.96 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	1.38 kg (3.04 lb)
Weight with packaging [kg(lb)]	2.02 kg (4.45 lb)
Typical power consumption [W]	21.2 W
Typical heat dissipation [BTU/hour]	72.34 BTU/hour
Maximum power consumption [W]	26.3 W
Maximum heat dissipation [BTU/hour]	89.74 BTU/hour
Static power consumption [W]	14.8 W
MTBF [years]	71.82 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	43 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.5 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules) -5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	0.8 A

Item	Specification
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.2 S5735-L8T4S-A1 (98011284-001)

Overview

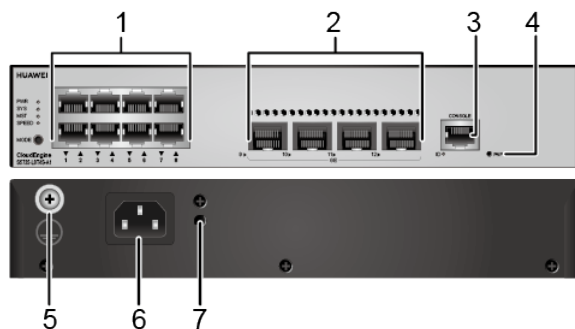
Table 4-1739 Basic information about the S5735-L8T4S-A1

Item	Details
Description	S5735-L8T4S-A1 (8*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
Part Number	98011284-001
Model	S5735-L8T4S-A1
First supported version	V200R020C10

Item	Details
Remarks	Stacking is not supported. Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-617 S5735-L8T4S-A1 appearance



1	Eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	AC socket NOTE It is used with an AC power cable .

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	-	-
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Ports

Table 4-1740 Ports on the S5735-L8T4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none">• FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions)• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735-L8T4S-A1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L8T4S-A1 does not have USB and PoE mode indicators. For details, see the S5735-L24P4X-A1.

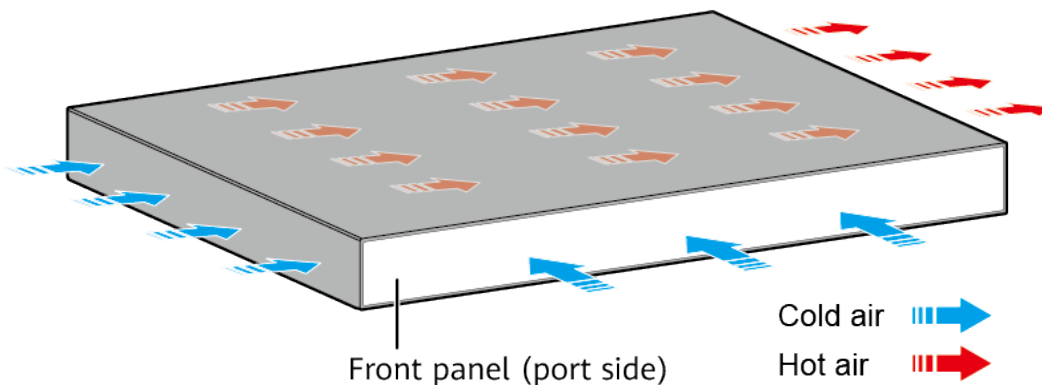
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1741 Technical specifications of the S5735-L8T4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.84 in. x 7.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 187.0 mm (1.72 in. x 9.84 in. x 7.36 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 370.0 mm x 380.0 mm (3.54 in. x 14.57 in. x 14.96 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	1.38 kg (3.04 lb)
Weight with packaging [kg(lb)]	2.02 kg (4.45 lb)
Typical power consumption [W]	21.2 W
Typical heat dissipation [BTU/hour]	72.34 BTU/hour
Maximum power consumption [W]	26.3 W

Item	Specification
Maximum heat dissipation [BTU/hour]	89.74 BTU/hour
Static power consumption [W]	14.8 W
MTBF [years]	71.82 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	43 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.5 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules) -5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)

Item	Specification
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	0.8 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.3 S5735-L8P4S-A1 (98011295)

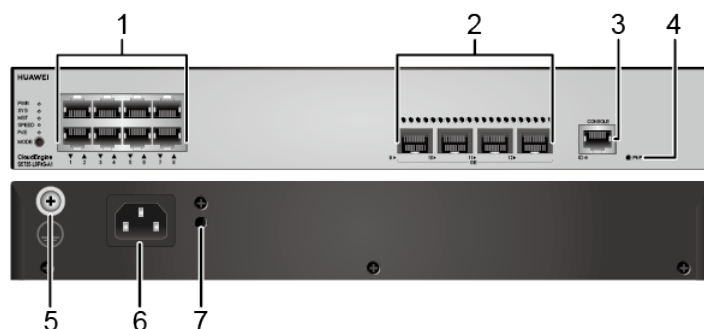
Overview

Table 4-1742 Basic information about the S5735-L8P4S-A1

Item	Details
Description	S5735-L8P4S-A1 (8*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power)
Part Number	98011295
Model	S5735-L8P4S-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-618 S5735-L8P4S-A1 appearance



1	Eight 10/100/1000BASE-T PoE+ ports	2	Four 1000BASE-X ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	AC socket NOTE It is used with an AC power cable .
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	-	-

Ports

Table 4-1743 Ports on the S5735-L8P4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported) ● 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules (only used for stack connection) ● 10GE-DWDM SFP+ optical modules (only

Port	Connector Type	Description	Available Components
			<p>used for stack connection)</p> <ul style="list-style-type: none"> • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m SFP+ AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735-L8P4S-A1 has the same types of indicators as the S5735-L24P4X-A1. For details, see the S5735-L24P4X-A1.

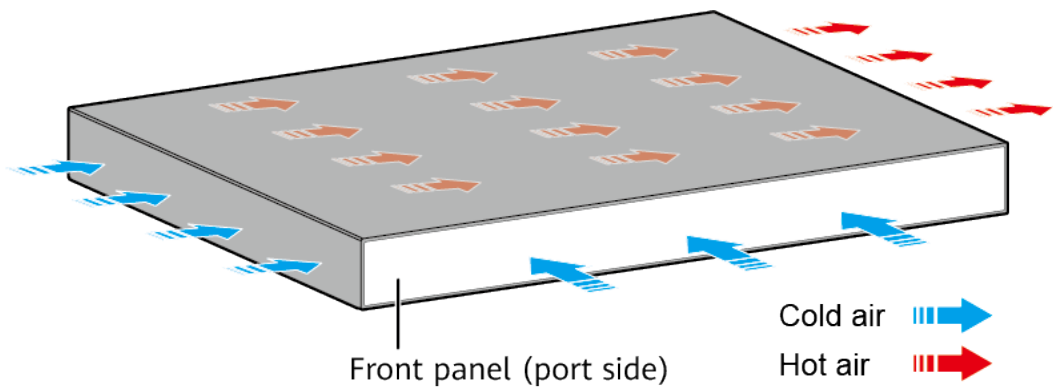
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1744 Technical specifications of the S5735-L8P4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 300.0 mm x 220.0 mm (1.72 in. x 11.81 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 300.0 mm x 227.0 mm (1.72 in. x 11.81 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	110.0 mm x 435.0 mm x 360.0 mm (4.33 in. x 17.13 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.25 kg (4.96 lb)
Weight with packaging [kg(lb)]	3.17 kg (6.99 lb)
Typical power consumption [W]	28.4 W
Typical heat dissipation [BTU/hour]	96.9 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 38.6 W Full PoE load: 162.6 W (PoE: 124 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 131.71 Full PoE load: 554.81
Static power consumption [W]	22.6 W

Item	Specification
MTBF [years]	66.56 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	42.2 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	30.5 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.), mapping non-industrial optical modules</p> <p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.), mapping industrial optical modules with transmission distances less than or equal to 10 km</p>
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH, non-condensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in

Item	Specification
Rated input voltage [V]	100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	90 V AC to 290 V AC, 45 Hz to 65 Hz
Maximum input current [A]	3 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode; ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling heat dissipation and intelligent speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.4 S5735-L8P4S-A1 (98011295-001)

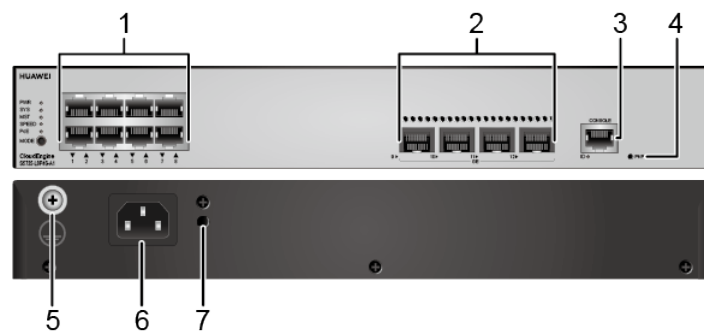
Overview

Table 4-1745 Basic information about the S5735-L8P4S-A1

Item	Details
Description	S5735-L8P4S-A1 (8*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power)
Part Number	98011295-001
Model	S5735-L8P4S-A1
First supported version	V200R020C10
Remarks	Stacking is not supported. Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-619 S5735-L8P4S-A1 appearance



1	Eight 10/100/1000BASE-T PoE+ ports	2	Four 1000BASE-X ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	AC socket NOTE It is used with an AC power cable .
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	-	-

Ports

Table 4-1746 Ports on the S5735-L8P4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735-L8P4S-A1 has the same types of indicators as the S5735-L24P4X-A1. For details, see the S5735-L24P4X-A1.

Power Supply System

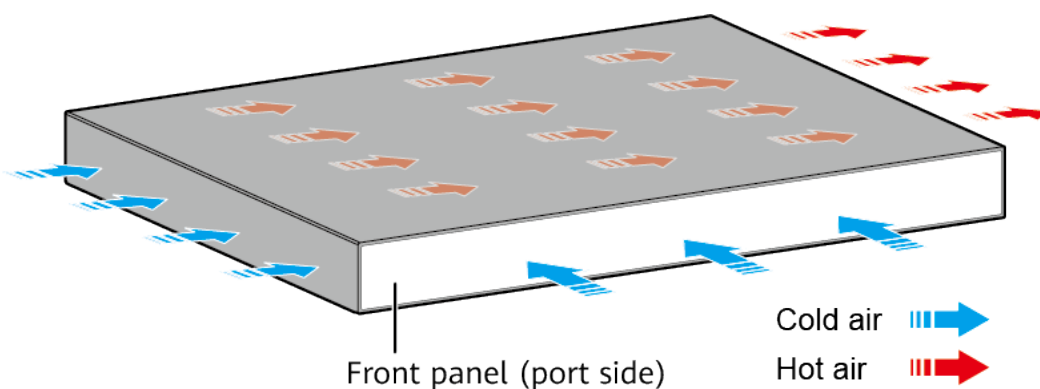
The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures

full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1747 Technical specifications of the S5735-L8P4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 300.0 mm x 220.0 mm (1.72 in. x 11.81 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 300.0 mm x 227.0 mm (1.72 in. x 11.81 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	110.0 mm x 435.0 mm x 360.0 mm (4.33 in. x 17.13 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.25 kg (4.96 lb)
Weight with packaging [kg(lb)]	3.17 kg (6.99 lb)

Item	Specification
Typical power consumption [W]	28.4 W
Typical heat dissipation [BTU/hour]	96.9 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none">Without PoE: 38.6 WFull PoE load: 162.6 W (PoE: 124 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none">Without PoE: 131.71Full PoE load: 554.81
Static power consumption [W]	22.6 W
MTBF [years]	66.56 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	42.2 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	30.5 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0–1800 m (0–5906 ft.), mapping non-industrial optical modules</p> <p>-5°C to +55°C (23°F to 131°F) at an altitude of 0–1800 m (0–5906 ft.), mapping industrial optical modules with transmission distances less than or equal to 10 km</p>

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH, non-condensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	90 V AC to 290 V AC, 45 Hz to 65 Hz
Maximum input current [A]	3 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	±6 kV in differential mode; ±6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in

Item	Specification
Heat dissipation mode	Air cooling heat dissipation and intelligent speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.5 S5735-L8T4X-A1

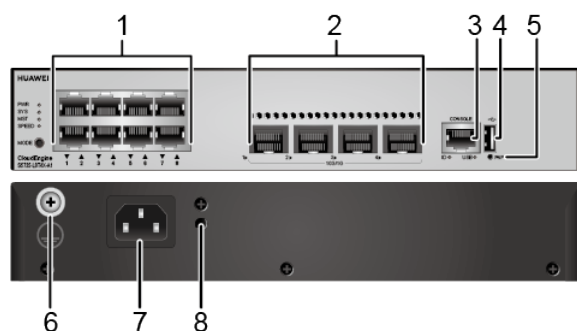
Overview

Table 4-1748 Basic information about the S5735-L8T4X-A1

Item	Details
Description	S5735-L8T4X-A1 (8*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011282
Model	S5735-L8T4X-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-620 S5735-L8T4X-A1 appearance



1	Eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port
5	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	Ground screw NOTE It is used with a ground cable .
7	AC socket NOTE It is used with an AC power cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.

Ports

Table 4-1749 Ports on the S5735-L8T4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE -T port	RJ45	A 10/100/1000BASE -T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • Industrial optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-

Port	Connector Type	Description	Available Components
			configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
USB port	USB 2.0 Type A	The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0. USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.	USB flash drive

Indicators and Buttons

The S5735-L8T4X-A1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L8T4X-A1 does not have a PoE mode indicator. For details, see the S5735-L24P4X-A1.

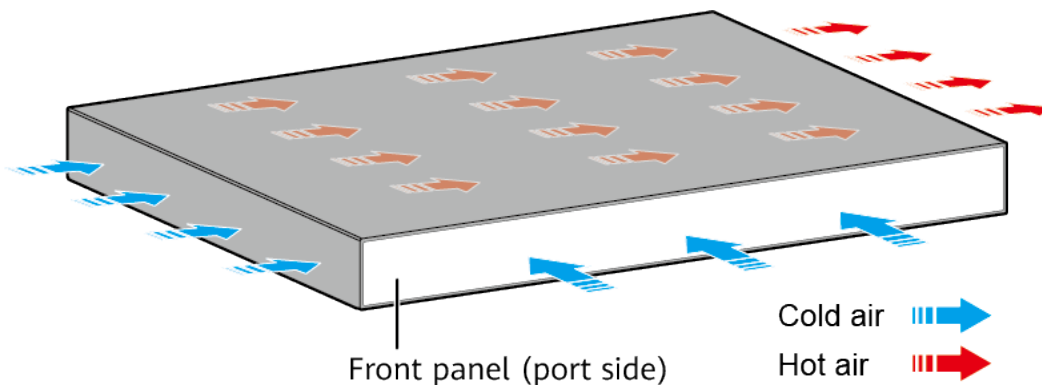
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1750 Technical specifications of the S5735-L8T4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.84 in. x 7.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 187.0 mm (1.72 in. x 9.84 in. x 7.36 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 370.0 mm x 380.0 mm (3.54 in. x 14.57 in. x 14.96 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	1.44 kg (3.18 lb)
Weight with packaging [kg(lb)]	2.08 kg (4.59 lb)
Typical power consumption [W]	21.1 W
Typical heat dissipation [BTU/hour]	72 BTU/hour
Maximum power consumption [W]	26.3 W

Item	Specification
Maximum heat dissipation [BTU/hour]	89.74 BTU/hour
Static power consumption [W]	14.6 W
MTBF [years]	67.07 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	43 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.5 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules) -5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)

Item	Specification
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	0.8 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.6 S5735-L8P4X-A1

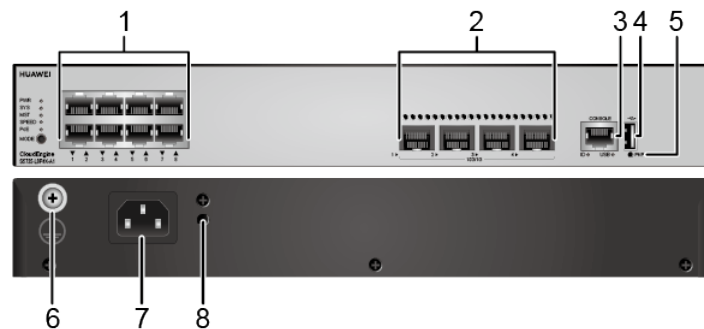
Overview

Table 4-1751 Basic information about the S5735-L8P4X-A1

Item	Details
Description	S5735-L8P4X-A1 (8*10/100/1000BASE-T ports, 4*10GE SFP+ ports, PoE+, AC power)
Part Number	98011291
Model	S5735-L8P4X-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-621 S5735-L8P4X-A1 appearance



1	Eight 10/100/1000BASE-T PoE+ ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>

Ports

Table 4-1752 Ports on the S5735-L8P4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	<p>A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.</p> <p>The port supports the PoE function.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • Industrial optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-

Port	Connector Type	Description	Available Components
			configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
USB port	USB 2.0 Type A	The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0. USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.	USB flash drive

Indicators and Buttons

The S5735-L8P4X-A1 has the same types of indicators as the S5735-L24P4X-A1. For details, see the S5735-L24P4X-A1.

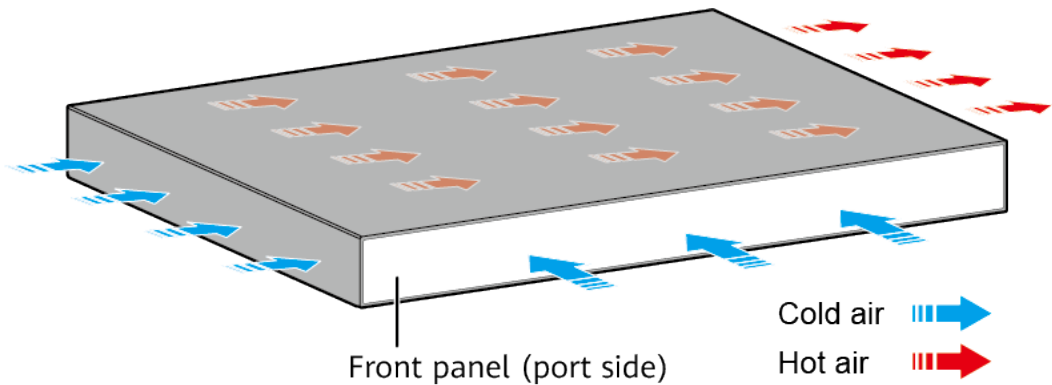
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1753 Technical specifications of the S5735-L8P4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 300.0 mm x 220.0 mm (1.72 in. x 11.8 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 300.0 mm x 227.0 mm (1.72 in. x 11.8 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	110.0 mm x 435.0 mm x 360.0 mm (4.33 in. x 17.13 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.25 kg (4.96 lb)
Weight with packaging [kg(lb)]	3.17 kg (7 lb)
Typical power consumption [W]	28.7 W
Typical heat dissipation [BTU/hour]	97.93 BTU/hour

Item	Specification
Maximum power consumption [W]	<ul style="list-style-type: none"> • Not providing the PoE function: 39.1 W • 100% PoE loads: 163.1 W (PoE: 124 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> • Not providing the PoE function: 133.41 • 100% PoE loads: 556.51
Static power consumption [W]	22.6 W
MTBF [years]	62.46 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	42.2 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	30.5 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	<p>-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules)</p> <p>-5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)</p>
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.</p>

Item	Specification
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz
Maximum input current [A]	3 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	±6 kV in differential mode, ±6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.7 S5735-L24T4S-A1 (98011306)

Overview

Table 4-1754 Basic information about the S5735-L24T4S-A1

Item	Details
Description	S5735-L24T4S-A1 (24*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
Part Number	98011306
Model	S5735-L24T4S-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-622 S5735-L24T4S-A1 appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1755 Ports on the S5735-L24T4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported) ● 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules (only used for stack connection) ● 10GE-DWDM SFP+ optical modules (only

Port	Connector Type	Description	Available Components
			<p>used for stack connection)</p> <ul style="list-style-type: none"> • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m SFP+ AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735-L24T4S-A1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L24T4S-A1 does not have USB and PoE mode indicators. For details, see the S5735-L24P4X-A1.

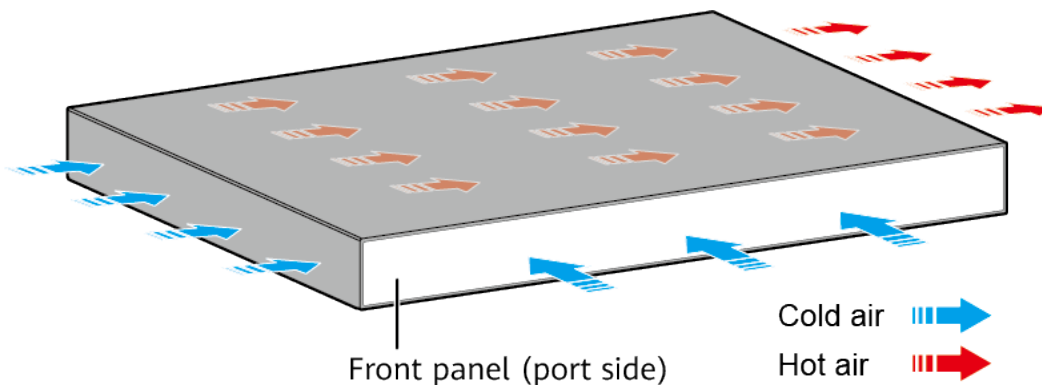
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1756 Technical specifications of the S5735-L24T4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.45 kg (5.4 lb)
Weight with packaging [kg(lb)]	3.34 kg (7.36 lb)
Typical power consumption [W]	32.7 W
Typical heat dissipation [BTU/hour]	111.58 BTU/hour
Maximum power consumption [W]	47.6 W
Maximum heat dissipation [BTU/hour]	162.42 BTU/hour
Static power consumption [W]	18.4 W
MTBF [years]	66.16 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	39 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules) -5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC; 50/60 Hz High-voltage DC input: 110 V DC to 250 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 264 V AC; 47 Hz to 63 HzHigh-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.8 S5735-L24T4S-A1 (98011306-001)

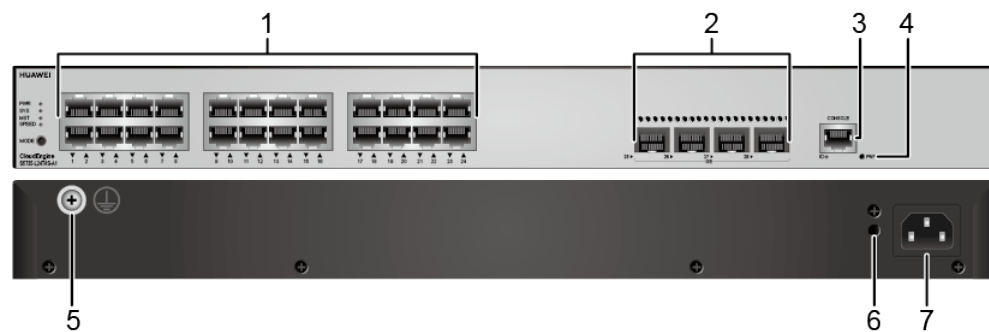
Overview

Table 4-1757 Basic information about the S5735-L24T4S-A1

Item	Details
Description	S5735-L24T4S-A1 (24*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
Part Number	98011306-001
Model	S5735-L24T4S-A1
First supported version	V200R020C10
Remarks	Stacking is not supported. Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-623 S5735-L24T4S-A1 appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1758 Ports on the S5735-L24T4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735-L24T4S-A1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L24T4S-A1 does not have USB and PoE mode indicators. For details, see the S5735-L24P4X-A1.

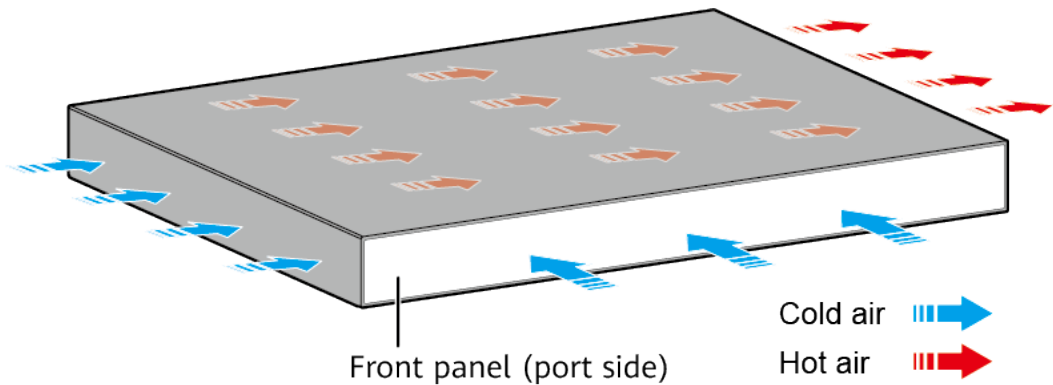
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1759 Technical specifications of the S5735-L24T4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.45 kg (5.4 lb)
Weight with packaging [kg(lb)]	3.34 kg (7.36 lb)
Typical power consumption [W]	32.7 W
Typical heat dissipation [BTU/hour]	111.58 BTU/hour
Maximum power consumption [W]	47.6 W

Item	Specification
Maximum heat dissipation [BTU/hour]	162.42 BTU/hour
Static power consumption [W]	18.4 W
MTBF [years]	66.16 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	39 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules) -5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)

Item	Specification
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC; 50/60 Hz High-voltage DC input: 110 V DC to 250 V DC
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC; 47 Hz to 63 Hz High-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.9 S5735-L24P4S-A1 (98011321)

Overview

Table 4-1760 Basic information about the S5735-L24P4S-A1

Item	Details
Description	S5735-L24P4S-A1 (24*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power)
Part Number	98011321
Model	S5735-L24P4S-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-624 S5735-L24P4S-A1 appearance



1	Twenty-four 10/100/1000BASE-T PoE+ ports	2	Four 1000BASE-X ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1761 Ports on the S5735-L24P4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules (only used for stack connection) ● 10GE-DWDM SFP+ optical modules (only used for stack connection) ● 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) ● 3 m and 10 m SFP+ AOC cables (only used for stack connection)

Port	Connector Type	Description	Available Components
			<ul style="list-style-type: none"> 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

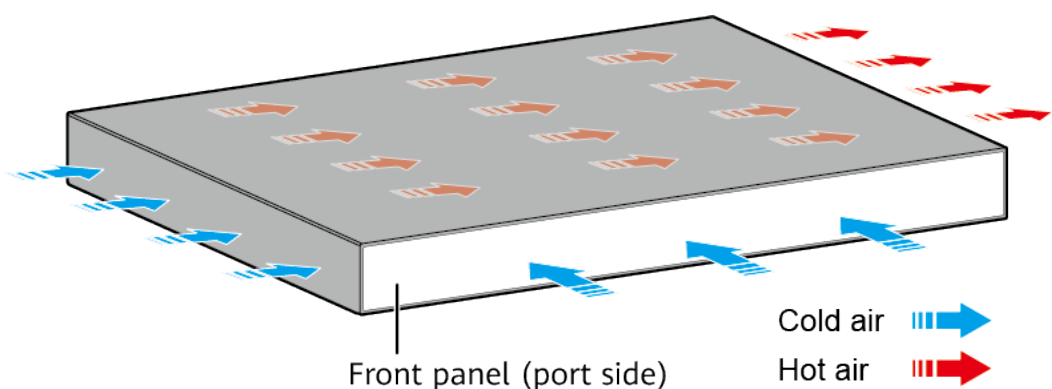
The S5735-L24P4S-A1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L24P4S-A1 does not have a USB indicator. For details, see the S5735-L24P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1762 Technical specifications of the S5735-L24P4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.94 kg (6.48 lb)
Weight with packaging [kg(lb)]	3.91 kg (8.62 lb)
Typical power consumption [W]	41.7 W
Typical heat dissipation [BTU/hour]	142.29 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 53.2 W 100% PoE loads: 433.2 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Not providing the PoE function: 181.52 100% PoE loads: 1478.12
Static power consumption [W]	29.6 W
MTBF [years]	55.72 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	50 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	38.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2

Item	Specification
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in

Item	Specification
Rated input voltage [V]	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.10 S5735-L24P4S-A1 (98011321-001)

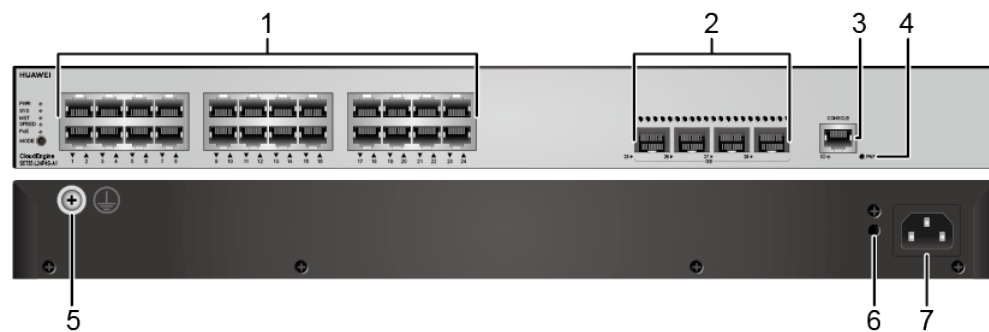
Overview

Table 4-1763 Basic information about the S5735-L24P4S-A1

Item	Details
Description	S5735-L24P4S-A1 (24*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power)
Part Number	98011321-001
Model	S5735-L24P4S-A1
First supported version	V200R020C10
Remarks	Stacking is not supported. Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-625 S5735-L24P4S-A1 appearance



1	Twenty-four 10/100/1000BASE-T PoE+ ports	2	Four 1000BASE-X ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1764 Ports on the S5735-L24P4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

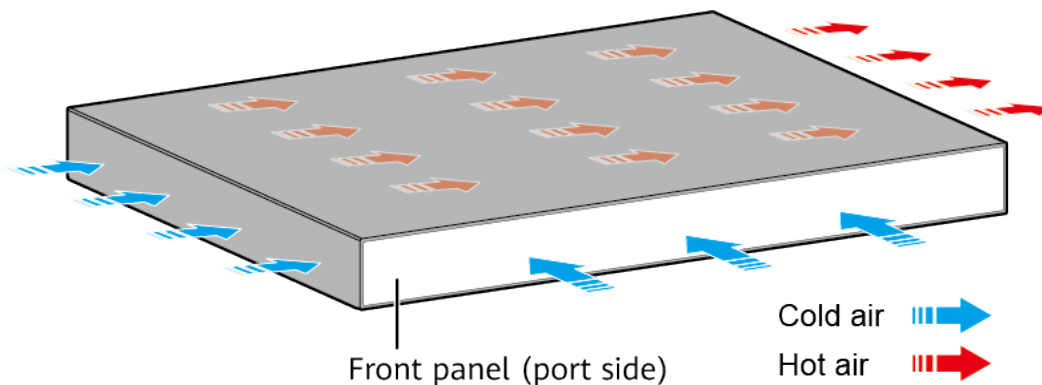
The S5735-L24P4S-A1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L24P4S-A1 does not have a USB indicator. For details, see the S5735-L24P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1765 Technical specifications of the S5735-L24P4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.94 kg (6.48 lb)
Weight with packaging [kg(lb)]	3.91 kg (8.62 lb)
Typical power consumption [W]	41.7 W
Typical heat dissipation [BTU/hour]	142.29 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 53.2 W 100% PoE loads: 433.2 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Not providing the PoE function: 181.52 100% PoE loads: 1478.12

Item	Specification
Static power consumption [W]	29.6 W
MTBF [years]	55.72 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	50 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	38.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC

Item	Specification
Maximum input current [A]	6 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.11 S5735-L24T4X-A1

Overview

Table 4-1766 Basic information about the S5735-L24T4X-A1

Item	Details
Description	S5735-L24T4X-A1 (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011302

Item	Details
Model	S5735-L24T4X-A1
First supported version	V200R020C10
Other part numbers	98011302-001: S5735-L24T4X-A1 (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power, Only for India and Pakistan)
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-626 S5735-L24T4X-A1 appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>

Ports

Table 4-1767 Ports on the S5735-L24T4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • Industrial optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-

Port	Connector Type	Description	Available Components
			configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
USB port	USB 2.0 Type A	The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0. USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.	USB flash drive

Indicators and Buttons

The S5735-L24T4X-A1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L24T4X-A1 does not have a PoE mode indicator. For details, see the S5735-L24P4X-A1.

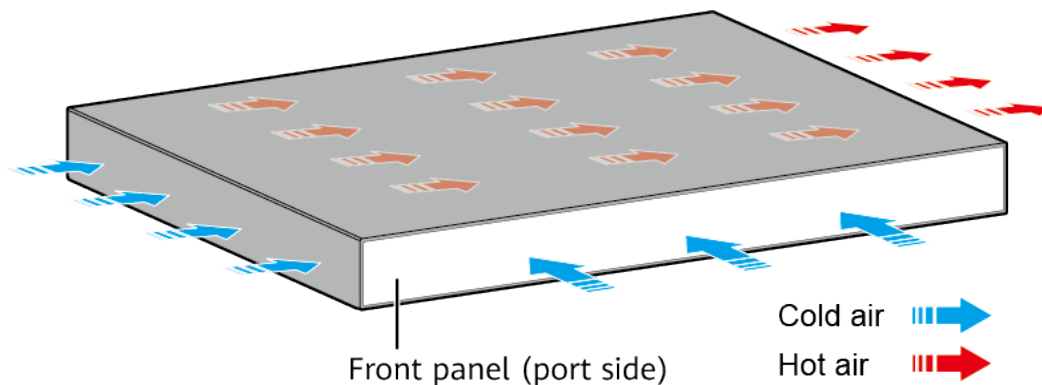
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1768 Technical specifications of the S5735-L24T4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.54 kg (5.6 lb)
Weight with packaging [kg(lb)]	3.48 kg (7.67 lb)
Typical power consumption [W]	33.2 W
Typical heat dissipation [BTU/hour]	113.28 BTU/hour
Maximum power consumption [W]	45.6 W

Item	Specification
Maximum heat dissipation [BTU/hour]	155.59 BTU/hour
Static power consumption [W]	19.3 W
MTBF [years]	62.05 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	39 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules) -5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)

Item	Specification
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC; 50/60 Hz High-voltage DC input: 110 V DC to 250 V DC
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC; 47 Hz to 63 Hz High-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	98011302: Common mode: ± 7 kV 98011302-001: Common mode: ± 2 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.12 S5735-L24T4X-D1

Overview

Table 4-1769 Basic information about the S5735-L24T4X-D1

Item	Details
Description	S5735-L24T4X-D1 (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, DC power)
Part Number	98011304
Model	S5735-L24T4X-D1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-627 S5735-L24T4X-D1 appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>DC power terminal</p> <p>NOTE</p> <p>It is used with DC Power Cable.</p>	-	-

Ports

Table 4-1770 Ports on the S5735-L24T4X-D1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• Industrial optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)• 1 m and 3 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-

Port	Connector Type	Description	Available Components
			configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
USB port	USB 2.0 Type A	The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0. USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.	USB flash drive

Indicators and Buttons

The S5735-L24T4X-D1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L24T4X-D1 does not have a PoE mode indicator. For details, see the S5735-L24P4X-A1.

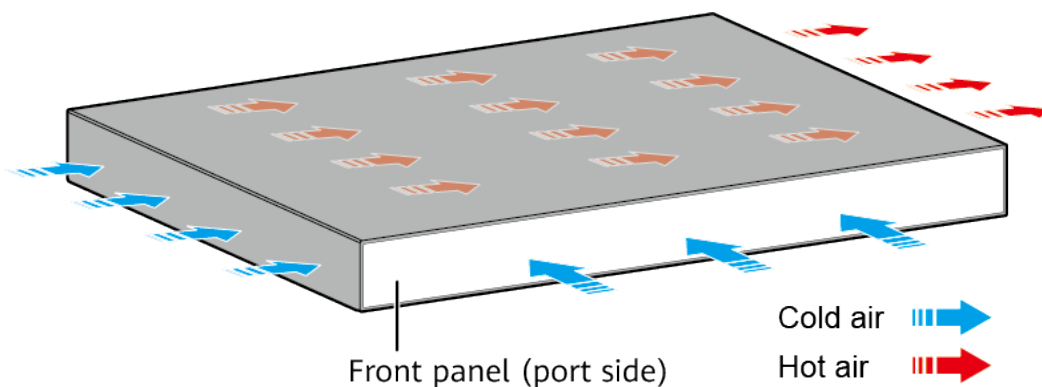
Power Supply System

The switch has a built-in DC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1771 Technical specifications of the S5735-L24T4X-D1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.39 kg (5.27 lb)
Weight with packaging [kg(lb)]	3.28 kg (7.23 lb)
Typical power consumption [W]	34 W
Typical heat dissipation [BTU/hour]	116.01 BTU/hour
Maximum power consumption [W]	37.3 W

Item	Specification
Maximum heat dissipation [BTU/hour]	127.27 BTU/hour
Static power consumption [W]	21.9 W
MTBF [years]	62.05 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	39 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules) -5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)

Item	Specification
Power supply mode	DC built-in
Rated input voltage [V]	DC input: -48 V DC to -60 V DC
Input voltage range [V]	DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	6A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.13 S5735-L24P4X-A1

Overview

Table 4-1772 Basic information about the S5735-L24P4X-A1

Item	Details
Description	S5735-L24P4X-A1 (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, PoE+, AC power)
Part Number	98011318
Model	S5735-L24P4X-A1
First supported version	V200R020C10
Other part numbers	98011318-001: S5735-L24P4X-A1 (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, PoE+, AC power, Only for India and Pakistan)
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-628 S5735-L24P4X-A1 appearance



1	Twenty-four 10/100/1000BASE-T PoE+ ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>

Ports

Table 4-1773 Ports on the S5735-L24P4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	<p>A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.</p> <p>The port supports the PoE function.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-629 Indicators on the switch

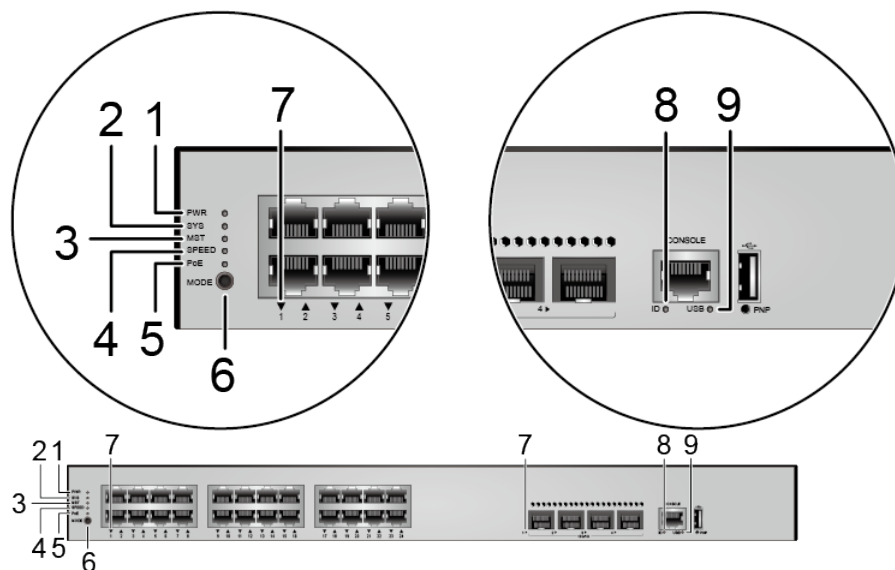


Table 4-1774 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
5	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
6	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
7	-	Service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		<p>Meanings of service port indicators vary in different modes. For details, see Table 4-1775.</p> <p>NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.</p>
8	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
9	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Fast blinking	The system is reading data from a USB flash drive.
			Green	Slow blinking	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Fast blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1775 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.

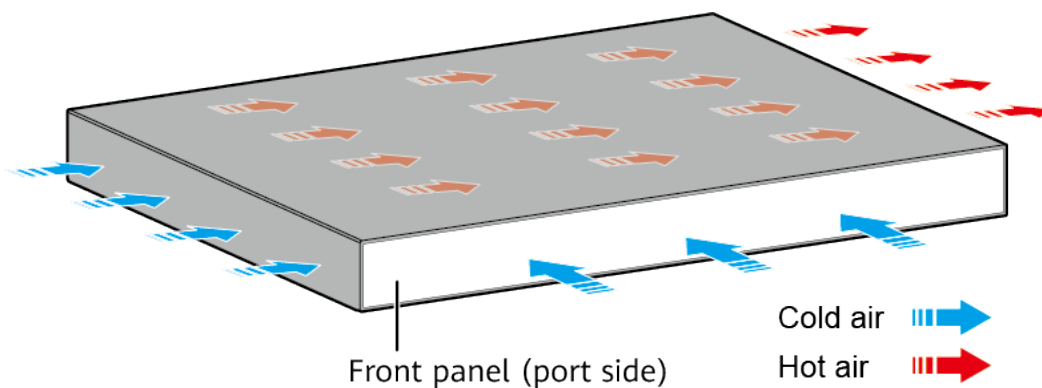
Display Mode	Color	Status	Description
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1776 Technical specifications of the S5735-L24P4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.96 kg (6.53 lb)
Weight with packaging [kg(lb)]	3.93 kg (8.66 lb)
Typical power consumption [W]	42.4 W
Typical heat dissipation [BTU/hour]	144.67 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 53.8 W 100% PoE loads: 433.8 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Not providing the PoE function: 183.57 100% PoE loads: 1480.17
Static power consumption [W]	30.2 W
MTBF [years]	52.74 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	50 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	38.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2

Item	Specification
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in

Item	Specification
Rated input voltage [V]	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	98011318: Common mode: ± 7 kV 98011318-001: Common mode: ± 2 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.14 S5735-L32ST4X-A1

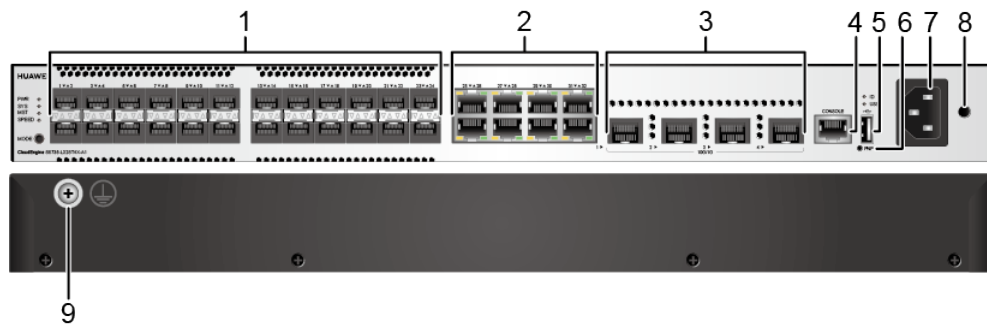
Overview

Table 4-1777 Basic information about the S5735-L32ST4X-A1

Item	Details
Description	S5735-L32ST4X-A1 (24*GE SFP ports, 8*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power, front access)
Part Number	98011396
Model	S5735-L32ST4X-A1
First supported version	V200R020C10

Components

Figure 4-630 S5735-L32ST4X-A1 appearance



1	Twenty-four 100/1000BASE-X ports	2	Eight 10/100/1000BASE-T ports
3	Four 10GE SFP+ ports	4	One console port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	AC socket NOTE It is used with an AC power cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	Ground screw NOTE It is used with a ground cable .	-	-

Ports

Table 4-1778 Ports on the S5735-L32ST4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-631 Indicators on the switch

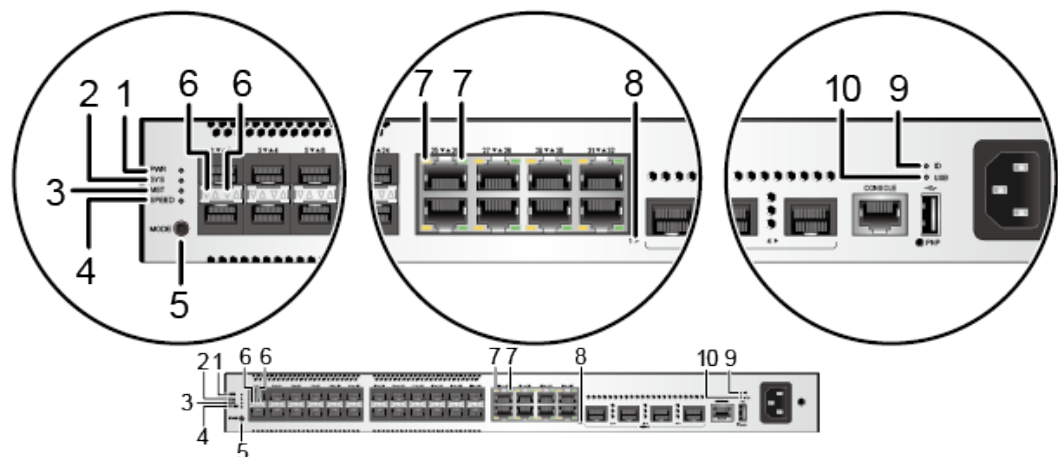


Table 4-1779 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED indicator is off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
6	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see Table 4-1780 and Table 4-1781 . NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.
7	-	Electrical service port indicator (two indicators for each port)	Each electrical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green).		
8	-	Optical service port indicator (one indicator for each port)	Each optical port has one single-color indicator. Arrowheads show the positions of ports.		
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).

No.	Indicator	Name	Color	Status	Description
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Fast blinking	The system is reading data from a USB flash drive.
			Green	Slow blinking	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Fast blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1780 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed mode	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s.

Table 4-1781 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.
MST stack mode (LINK and ACT indicators)	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on simultaneously	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking simultaneously	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.

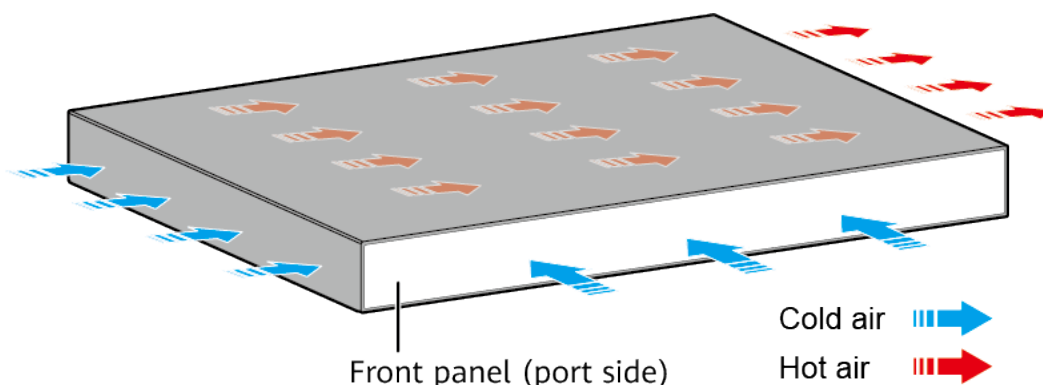
Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1782 Technical specifications of the S5735-L32ST4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.88 kg (6.35 lb)
Weight with packaging [kg(lb)]	4.03 kg (8.89 lb)
Typical power consumption [W]	53.2 W
Typical heat dissipation [BTU/hour]	181.52 BTU/hour
Maximum power consumption [W]	66.8 W
Maximum heat dissipation [BTU/hour]	227.93 BTU/hour
Static power consumption [W]	39.3 W
MTBF [years]	58.44 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	46.8 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	35 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 110 V DC to 250 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 264 V AC; 47 Hz to 63 HzHigh-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.15 S5735-L32ST4X-D1

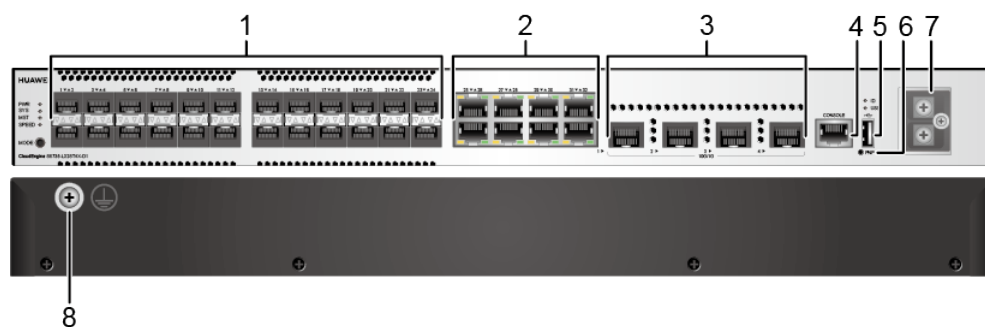
Overview

Table 4-1783 Basic information about the S5735-L32ST4X-D1

Item	Details
Description	S5735-L32ST4X-D1 (24*GE SFP ports, 8*10/100/1000BASE-T ports, 4*10GE SFP+ ports, DC power, front access)
Part Number	98011399
Model	S5735-L32ST4X-D1
First supported version	V200R020C10

Components

Figure 4-632 S5735-L32ST4X-D1 appearance



1	Twenty-four 100/1000BASE-X ports	2	Eight 10/100/1000BASE-T ports
3	Four 10GE SFP+ ports	4	One console port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	DC power terminal NOTE It is used with DC Power Cable .	8	Ground screw NOTE It is used with a ground cable .

Ports

Table 4-1784 Ports on the S5735-L32ST4X-D1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

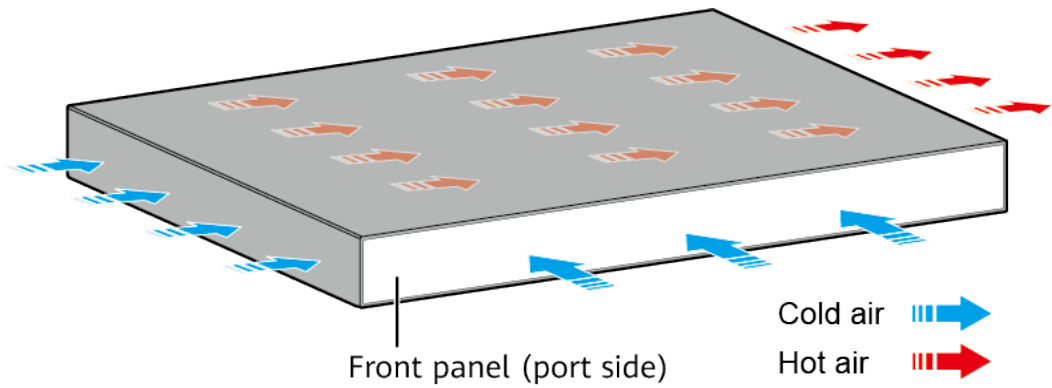
The S5735-L32ST4X-D1 has the same types of indicators as the S5735-L32ST4X-A1. For details, see the S5735-L32ST4X-A1.

Power Supply System

The switch has a built-in DC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1785 Technical specifications of the S5735-L32ST4X-D1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.75 kg (6.06 lb)
Weight with packaging [kg(lb)]	3.85 kg (8.49 lb)
Typical power consumption [W]	60.7 W
Typical heat dissipation [BTU/hour]	207.12 BTU/hour
Maximum power consumption [W]	61.9 W
Maximum heat dissipation [BTU/hour]	211.21 BTU/hour
Static power consumption [W]	37.8 W
MTBF [years]	58.44 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	46.8 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	35 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)

Item	Specification
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	DC built-in
Rated input voltage [V]	-48 V DC to -60 V DC
Input voltage range [V]	-38.4 V DC to -72 V DC
Maximum input current [A]	6 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.16 S5735-L48T4S-A1

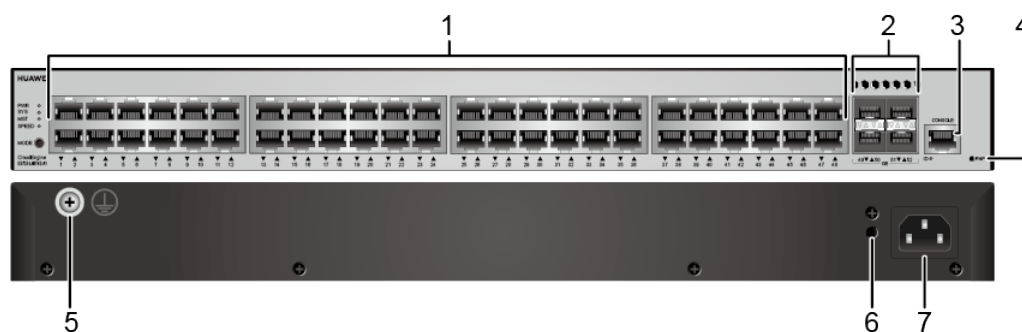
Overview

Table 4-1786 Basic information about the S5735-L48T4S-A1

Item	Details
Description	S5735-L48T4S-A1 (48*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
Part Number	98011334
Model	S5735-L48T4S-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-633 S5735-L48T4S-A1 appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1787 Ports on the S5735-L48T4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none">• FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions)• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules (only used for stack connection)• 10GE-DWDM SFP+ optical modules (only used for stack connection)• 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection)• 3 m and 10 m SFP+ AOC cables (only used for stack connection)

Port	Connector Type	Description	Available Components
			<ul style="list-style-type: none"> 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

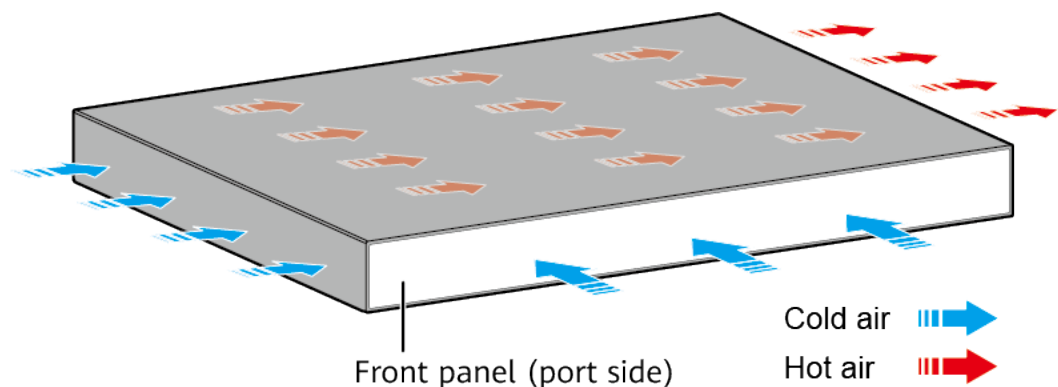
The S5735-L48T4S-A1 has similar indicators to those on the S5735-L48P4X-A1 except that the S5735-L48T4S-A1 does not have USB and PoE mode indicators. For details, see the S5735-L48P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1788 Technical specifications of the S5735-L48T4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.76 kg (6.09 lb)
Weight with packaging [kg(lb)]	3.74 kg (8.25 lb)
Typical power consumption [W]	43.3 W
Typical heat dissipation [BTU/hour]	147.74 BTU/hour
Maximum power consumption [W]	50.4 W
Maximum heat dissipation [BTU/hour]	171.97 BTU/hour
Static power consumption [W]	20.3 W
MTBF [years]	56.7 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	48 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	36.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in

Item	Specification
Rated input voltage [V]	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC; 50/60 HzHigh-voltage DC input: 110 V DC to 250 V DC
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 264 V AC; 47 Hz to 63 HzHigh-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.17 S5735-L48P4S-A1

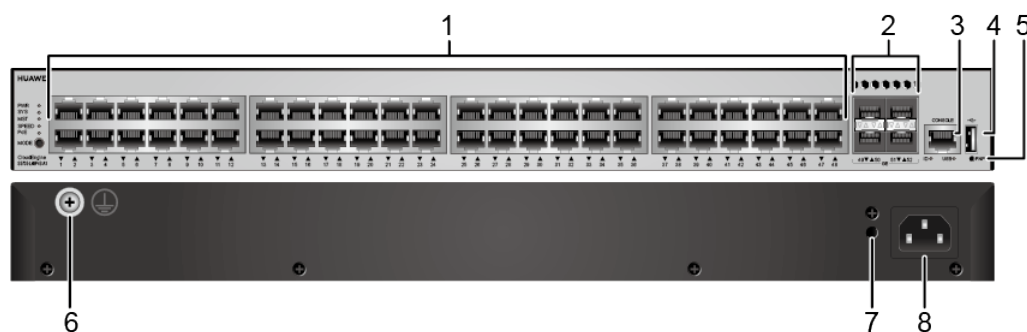
Overview

Table 4-1789 Basic information about the S5735-L48P4S-A1

Item	Details
Description	S5735-L48P4S-A1 (48*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power)
Part Number	98011345
Model	S5735-L48P4S-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-634 S5735-L48P4S-A1 appearance



1	Forty-eight 10/100/1000BASE-T PoE + ports	2	Four 1000BASE-X ports
3	One console port	4	One USB port

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>

Ports

Table 4-1790 Ports on the S5735-L48P4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	<p>A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.</p> <p>The port supports the PoE function.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules (only used for stack connection) ● 10GE-DWDM SFP+ optical modules (only used for stack connection) ● 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) ● 3 m and 10 m SFP+ AOC cables (only used for stack connection)

Port	Connector Type	Description	Available Components
			<ul style="list-style-type: none">• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

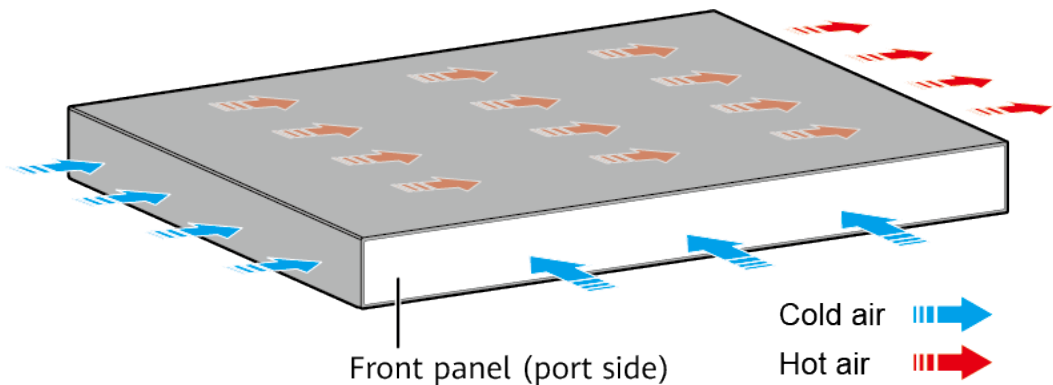
The S5735-L48P4S-A1 has the same types of indicators as the S5735-L48P4X-A1. For details, see the S5735-L48P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1791 Technical specifications of the S5735-L48P4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.23 kg (7.12 lb)
Weight with packaging [kg(lb)]	4.28 kg (9.44 lb)
Typical power consumption [W]	58.7 W

Item	Specification
Typical heat dissipation [BTU/hour]	200.29 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none">• Not providing the PoE function: 76.1 W• 100% PoE loads: 456.1 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none">• Not providing the PoE function: 259.66• 100% PoE loads: 1556.26
Static power consumption [W]	35.3 W
MTBF [years]	44.9 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	50 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	38.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC

Item	Specification
Maximum input current [A]	6 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.18 S5735-L48T4X-A1

Overview

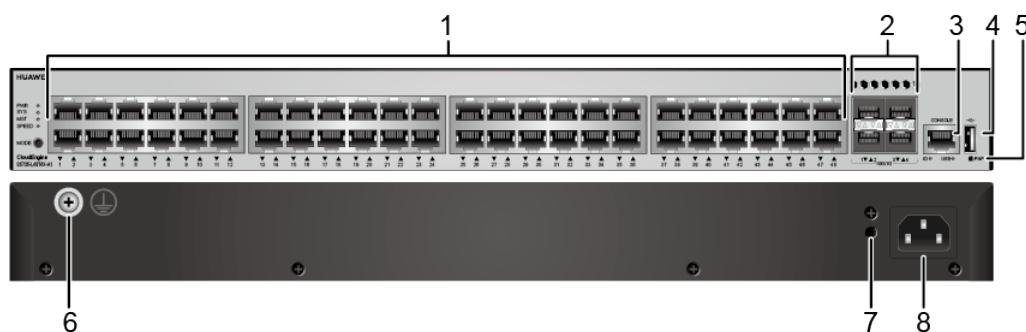
Table 4-1792 Basic information about the S5735-L48T4X-A1

Item	Details
Description	S5735-L48T4X-A1 (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011332

Item	Details
Model	S5735-L48T4X-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-635 S5735-L48T4X-A1 appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port
5	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	Ground screw NOTE It is used with a ground cable .

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .
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Ports

Table 4-1793 Ports on the S5735-L48T4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

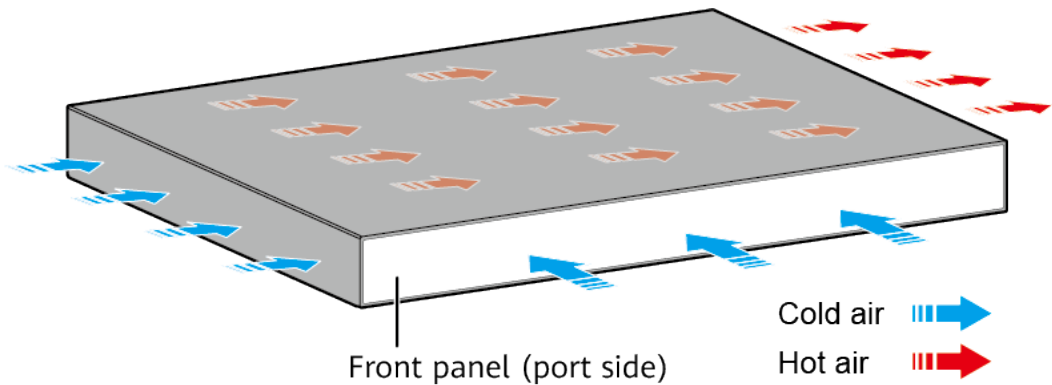
The S5735-L48T4X-A1 has similar indicators to those on the S5735-L48P4X-A1 except that the S5735-L48T4X-A1 does not have a PoE mode indicator. For details, see the S5735-L48P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1794 Technical specifications of the S5735-L48T4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.81 kg (6.2 lb)
Weight with packaging [kg(lb)]	3.79 kg (8.36 lb)
Typical power consumption [W]	43.2 W
Typical heat dissipation [BTU/hour]	147.4 BTU/hour
Maximum power consumption [W]	51.9 W
Maximum heat dissipation [BTU/hour]	177.09 BTU/hour
Static power consumption [W]	20.1 W
MTBF [years]	53.67 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	48 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	36.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 110 V DC to 250 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 264 V AC; 47 Hz to 63 HzHigh-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.19 S5735-L48P4X-A1

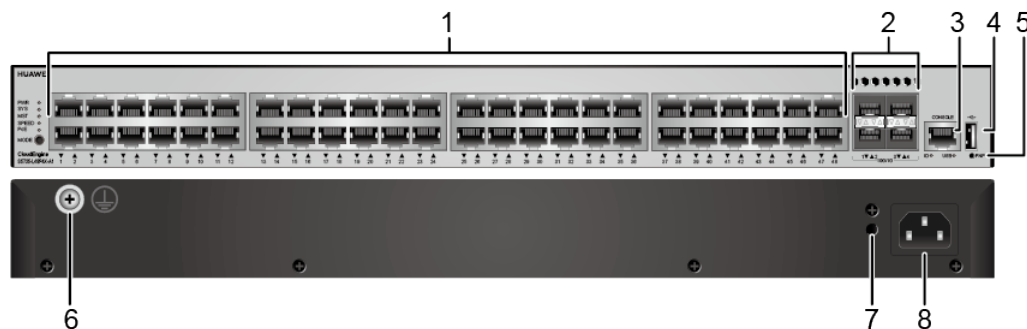
Overview

Table 4-1795 Basic information about the S5735-L48P4X-A1

Item	Details
Description	S5735-L48P4X-A1 (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, PoE+, AC power)
Part Number	98011343
Model	S5735-L48P4X-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-636 S5735-L48P4X-A1 appearance



1	Forty-eight 10/100/1000BASE-T PoE + ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>

Ports

Table 4-1796 Ports on the S5735-L48P4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	<p>A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.</p> <p>The port supports the PoE function.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-637 Indicators on the switch

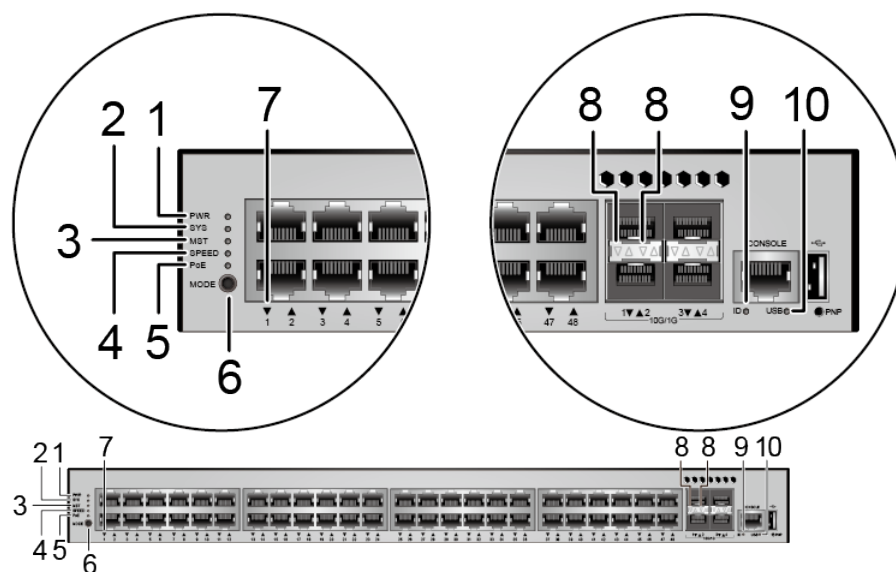


Table 4-1797 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
5	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
6	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
7	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		<p>Meanings of service port indicators vary in different modes. For details, see Table 4-1798 and Table 4-1799.</p> <p>NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.</p>
8	-	Optical service port indicator (two indicators for each port)	<p>Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green).</p> <p>Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.</p>		
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.

No.	Indicator	Name	Color	Status	Description
10	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Fast blinking	The system is reading data from a USB flash drive.
			Green	Slow blinking	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Fast blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1798 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-1799 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.

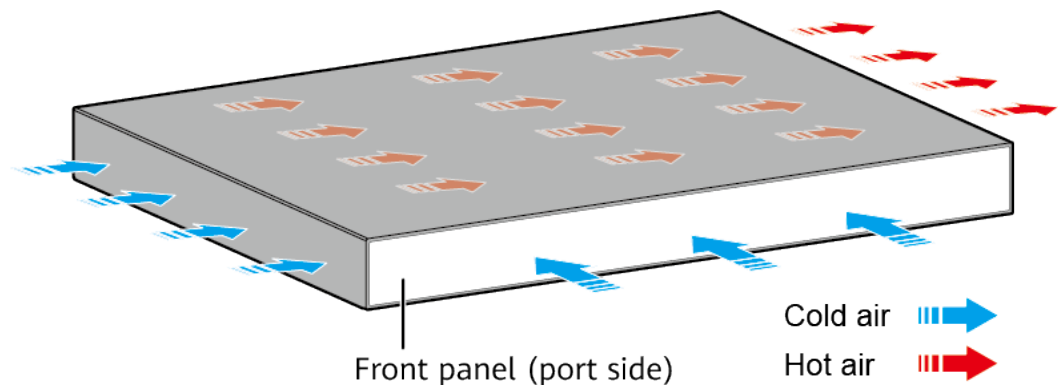
Display Mode	Color	Status	Description
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1800 Technical specifications of the S5735-L48P4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.23 kg (7.12 lb)
Weight with packaging [kg(lb)]	4.28 kg (9.44 lb)
Typical power consumption [W]	58.7 W
Typical heat dissipation [BTU/hour]	200.29 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 76.1 W 100% PoE loads: 456.1 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Not providing the PoE function: 259.66 100% PoE loads: 1556.26
Static power consumption [W]	35.3 W
MTBF [years]	44.03 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	50 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	38.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2

Item	Specification
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in

Item	Specification
Rated input voltage [V]	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.20 S5735-L8T4S-QA1

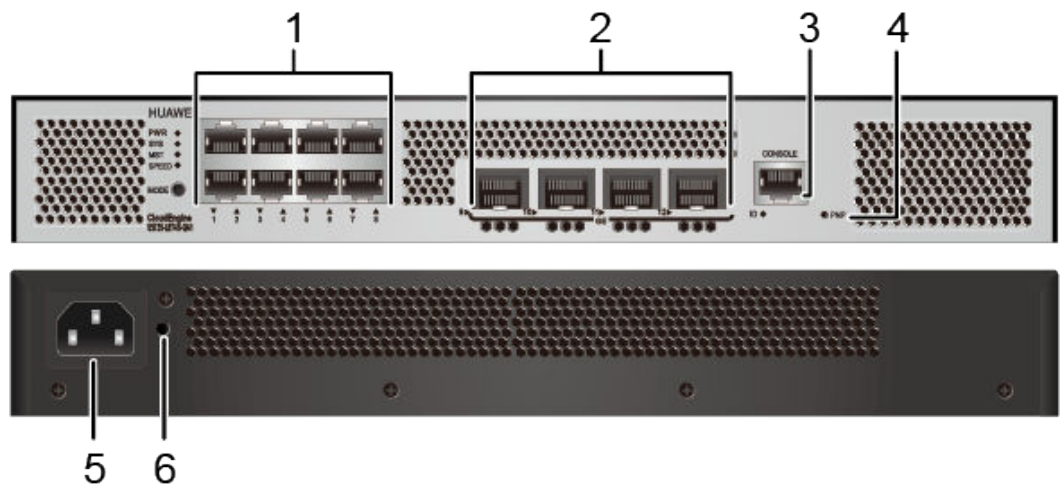
Overview

Table 4-1801 Basic information about the S5735-L8T4S-QA1

Item	Details
Description	S5735-L8T4S-QA1 (8*10/100/1000BASE-T ports, 4*GE SFP ports, AC power, Fanless)
Part Number	98011551
Model	S5735-L8T4S-QA1
First supported version	V200R021C00

Components

Figure 4-638 S5735-L8T4S-QA1 appearance



1	Eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

5	AC socket NOTE It is used with an AC power cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
-	Ground screw NOTE The ground screw is on the left side of the chassis.	-	-

Ports

Table 4-1802 Ports on the S5735-L8T4S-QA1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE SFP copper module ● Industrial optical modules ● 10GE SFP+ optical modules (only used for stack connection, a maximum transmission distance of 10 km, OSXD22N00 not supported) ● 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) ● 3 m and 10 m SFP+ AOC cables (only used for stack connection) ● 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735-L8T4S-QA1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L8T4S-QA1 does not have USB and PoE mode indicators. For details, see the S5735-L24P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1803 Technical specifications of the S5735-L8T4S-QA1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 320.0 mm x 210.0 mm (1.72 in. x 12.6 in. x 8.27 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 320.0 mm x 217.0 mm (1.72 in. x 12.6 in. x 8.54 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 465.0 mm x 380.0 mm (3.54 in. x 18.31 in. x 14.96 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.30 kg (5.07 lb)
Weight with packaging [kg(lb)]	3.10 kg (6.83 lb)
Typical power consumption [W]	20.5 W
Typical heat dissipation [BTU/hour]	69.95 BTU/hour

Item	Specification
Maximum power consumption [W]	22 W
Maximum heat dissipation [BTU/hour]	75.07 BTU/hour
Static power consumption [W]	13.0 W
MTBF [years]	71.82 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.51 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F).</p> <p>When the following optical modules are used, the device can operate in the temperature range of -5°C to +40°C (23°F to 104°F):</p> <ul style="list-style-type: none"> • 10GE non-industrial optical module with a transmission distance of 10 km • Non-industrial FE/GE optical module with a transmission distance of 40 km or 80 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)

Item	Specification
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz
Maximum input current [A]	0.8 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.21 S5735-L8P4S-QA1

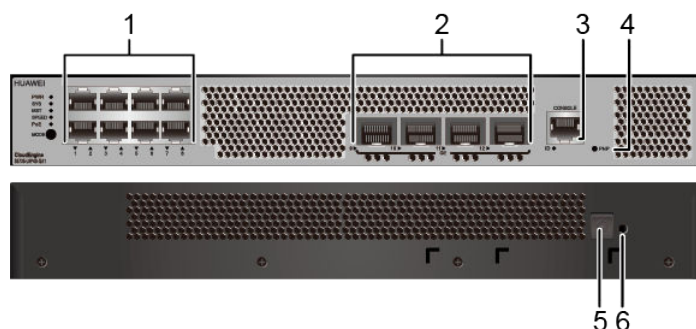
Overview

Table 4-1804 Basic information about the S5735-L8P4S-QA1

Item	Details
Description	S5735-L8P4S-QA1 (8*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power, Fanless)
Part Number	98011565
Model	S5735-L8P4S-QA1
First supported version	V200R021C00

Components

Figure 4-639 S5735-L8P4S-QA1 appearance



1	Eight 10/100/1000BASE-T PoE+ ports	2	Four 1000BASE-X ports
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Power adapter socket NOTE It is used with the power adapter delivered with the switch.	6	Jack for power adapter cable locking strap NOTE The power adapter cable locking strap is delivered with the switch.

-	Ground screw NOTE The ground screw is on the left side of the chassis.	-	-
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Ports

Table 4-1805 Ports on the S5735-L8P4S-QA1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE SFP copper module ● Industrial optical modules ● 10GE SFP+ optical modules (only used for stack connection, a maximum transmission distance of 10 km, OSXD22N00 not supported) ● 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) ● 3 m and 10 m SFP+ AOC cables (only used for stack connection) ● 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735-L8P4S-QA1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L8P4S-QA1 does not have a USB indicator. For details, see the S5735-L24P4X-A1.

Power Supply System

The switch uses an external power adapter to power the device and PDs. The adapter can provide 114 W PoE power, which ensures full PoE power on 7 ports in compliance with 802.3af or on 3 ports in compliance with 802.3at.

[Figure 4-640](#) shows the power adapter delivered with the switch. The power adapter must be used with the C7 connector power cable delivered with the switch.

Figure 4-640 Appearance of a power adapter



Heat Dissipation System

The switch has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1806 Technical specifications of the S5735-L8P4S-QA1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 320.0 mm x 210.0 mm (1.72 in. x 12.6 in. x 8.27 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 320.0 mm x 227.0 mm (1.72 in. x 12.6 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 465.0 mm x 380.0 mm (3.54 in. x 18.31 in. x 14.96 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.41 kg (5.31 lb)
Weight with packaging [kg(lb)]	4.06 kg (8.95 lb)
Typical power consumption [W]	26.3 W
Typical heat dissipation [BTU/hour]	89.74 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 28 W Full PoE load: 159 W (PoE: 114 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 95.54 Full PoE load: 543.89
Static power consumption [W]	19.5 W
MTBF [years]	66.56 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported

Item	Specification
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.51 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F).</p> <p>When the following optical modules are used, the device can operate in the temperature range of -5°C to +40°C (23°F to 104°F):</p> <ul style="list-style-type: none"> • 10GE non-industrial optical module with a transmission distance of 10 km • Non-industrial FE/GE optical module with a transmission distance of 40 km or 80 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 290 V AC; 47 Hz to 63 Hz
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported

Item	Specification
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 4 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.22 S5735-L24T4S-QA1

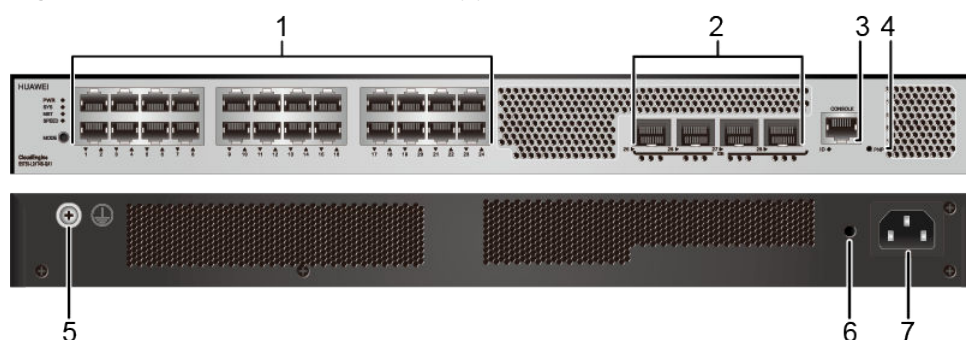
Overview

Table 4-1807 Basic information about the S5735-L24T4S-QA1

Item	Details
Description	S5735-L24T4S-QA1 (24*10/100/1000BASE-T ports, 4*GE SFP ports, AC power, Fanless)
Part Number	98011585
Model	S5735-L24T4S-QA1
First supported version	V200R021C00

Components

Figure 4-641 S5735-L24T4S-QA1 appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1808 Ports on the S5735-L24T4S-QA1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE SFP copper module• Industrial optical modules• 10GE SFP+ optical modules (only used for stack connection, a maximum transmission distance of 10 km, OSXD22N00 not supported)• 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection)• 3 m and 10 m SFP+ AOC cables (only used for stack connection)• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735-L24T4S-QA1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L24T4S-QA1 does not have USB and PoE mode indicators. For details, see the S5735-L24P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1809 Technical specifications of the S5735-L24T4S-QA1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.69 kg (8.14 lb)
Weight with packaging [kg(lb)]	4.45 kg (9.81 lb)
Typical power consumption [W]	29.8 W
Typical heat dissipation [BTU/hour]	101.68 BTU/hour

Item	Specification
Maximum power consumption [W]	33 W
Maximum heat dissipation [BTU/hour]	112.60 BTU/hour
Static power consumption [W]	17.4 W
MTBF [years]	66.16 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.51 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F).</p> <p>When the following optical modules are used, the device can operate in the temperature range of -5°C to +40°C (23°F to 104°F):</p> <ul style="list-style-type: none"> • 10GE non-industrial optical module with a transmission distance of 10 km • Non-industrial FE/GE optical module with a transmission distance of 40 km or 80 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)

Item	Specification
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.32.23 S5735-L24T4X-QA1

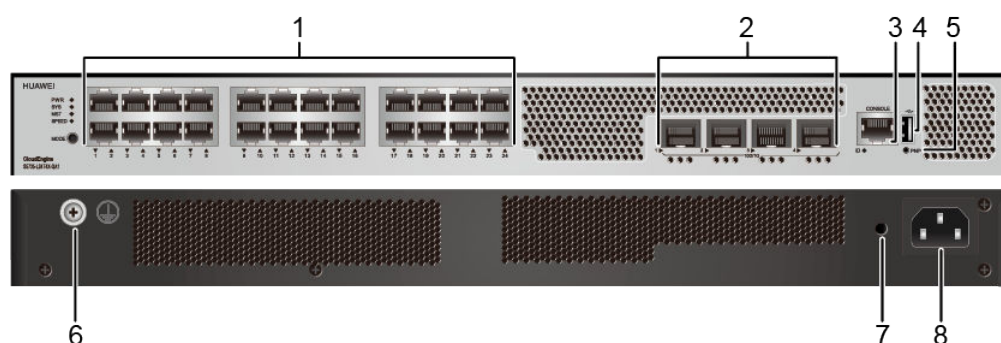
Overview

Table 4-1810 Basic information about the S5735-L24T4X-QA1

Item	Details
Description	S5735-L24T4X-QA1 (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power, Fanless)
Part Number	98011583
Model	S5735-L24T4X-QA1
First supported version	V200R021C00

Components

Figure 4-642 S5735-L24T4X-QA1 appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port
5	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	Ground screw NOTE It is used with a ground cable .

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .
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Ports

Table 4-1811 Ports on the S5735-L24T4X-QA1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported, the maximum transmission distance cannot exceed 10 km) • Industrial optical modules • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

The S5735-L24T4X-QA1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L24T4X-QA1 does not have a PoE mode indicator. For details, see the S5735-L24P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1812 Technical specifications of the S5735-L24T4X-QA1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.69 kg (8.14 lb)
Weight with packaging [kg(lb)]	4.45 kg (9.81 lb)
Typical power consumption [W]	30.8 W
Typical heat dissipation [BTU/hour]	105.09 BTU/hour
Maximum power consumption [W]	34 W
Maximum heat dissipation [BTU/hour]	116.01 BTU/hour
Static power consumption [W]	17.4 W
MTBF [years]	62.05 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.51 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F).</p> <p>When the following optical modules are used, the device can operate in the temperature range of -5°C to +40°C (23°F to 104°F):</p> <ul style="list-style-type: none">• 10GE non-industrial optical module with a transmission distance of 10 km• Non-industrial FE/GE optical module with a transmission distance of 40 km or 80 km
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV

Item	Specification
Power supply surge protection [kV]	±6 kV in differential mode, ±6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.33 S5735S-L1

4.33.1 S5735S-L8T4S-A1

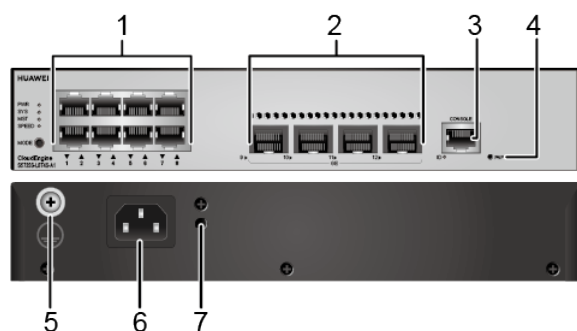
Overview

Table 4-1813 Basic information about the S5735S-L8T4S-A1

Item	Details
Description	S5735S-L8T4S-A1 (8*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
Part Number	98011285
Model	S5735S-L8T4S-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-643 S5735S-L8T4S-A1 appearance



1	Eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	AC socket NOTE It is used with an AC power cable .
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	-	-

Ports

Table 4-1814 Ports on the S5735S-L8T4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none">• FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions)• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported)• 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules (only used for stack connection)• 10GE-DWDM SFP+ optical modules (only

Port	Connector Type	Description	Available Components
			<p>used for stack connection)</p> <ul style="list-style-type: none"> • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m SFP+ AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735S-L8T4S-A1 has similar indicators to those on the S5735S-L24P4X-A1 except that the S5735S-L8T4S-A1 does not have a PoE mode indicator. For details, see the S5735S-L24P4X-A1.

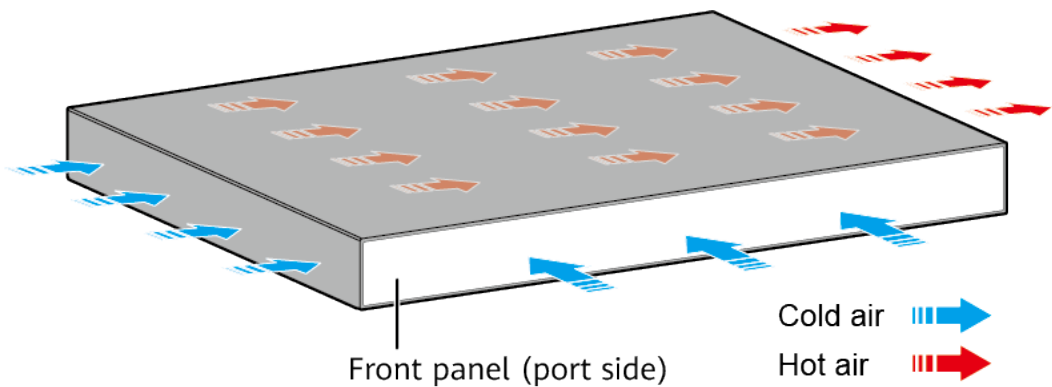
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1815 Technical specifications of the S5735S-L8T4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.84 in. x 7.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 187.0 mm (1.72 in. x 9.84 in. x 7.36 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 370.0 mm x 380.0 mm (3.54 in. x 14.57 in. x 14.96 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	1.38 kg (3.04 lb)
Weight with packaging [kg(lb)]	2.02 kg (4.45 lb)
Typical power consumption [W]	21.2 W
Typical heat dissipation [BTU/hour]	72.34 BTU/hour
Maximum power consumption [W]	26.3 W
Maximum heat dissipation [BTU/hour]	89.74 BTU/hour
Static power consumption [W]	14.8 W
MTBF [years]	71.82 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	43 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.5 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules) -5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	0.8 A

Item	Specification
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.33.2 S5735S-L8P4S-A1

Overview

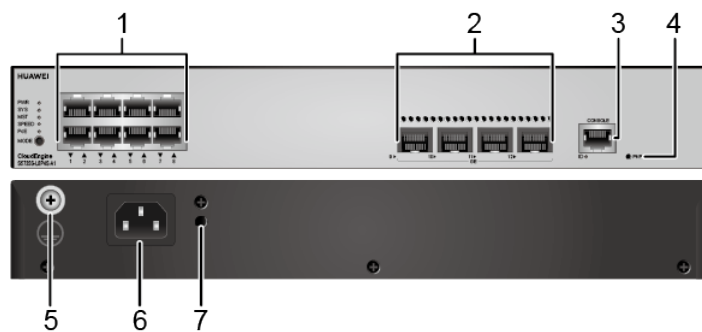
Table 4-1816 Basic information about the S5735S-L8P4S-A1

Item	Details
Description	S5735S-L8P4S-A1 (8*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power)
Part Number	98011296
Model	S5735S-L8P4S-A1

Item	Details
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-644 S5735S-L8P4S-A1 appearance



1	Eight 10/100/1000BASE-T PoE+ ports	2	Four 1000BASE-X ports
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	AC socket NOTE It is used with an AC power cable .

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	-	-
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Ports

Table 4-1817 Ports on the S5735S-L8P4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported) ● 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules (only used for stack connection) ● 10GE-DWDM SFP+ optical modules (only

Port	Connector Type	Description	Available Components
			<p>used for stack connection)</p> <ul style="list-style-type: none"> • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m SFP+ AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735S-L8P4S-A1 has the same types of indicators as the S5735S-L24P4X-A1. For details, see the S5735S-L24P4X-A1.

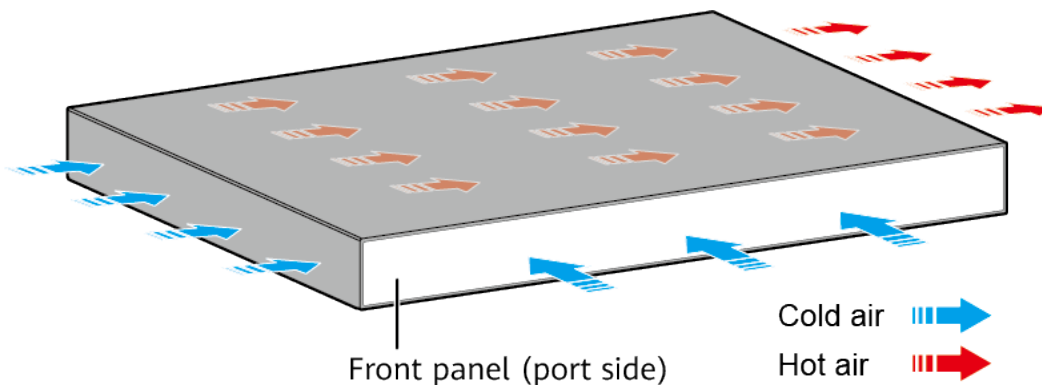
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1818 Technical specifications of the S5735S-L8P4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 300.0 mm x 220.0 mm (1.72 in. x 11.8 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 300.0 mm x 227.0 mm (1.72 in. x 11.8 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	110.0 mm x 435.0 mm x 360.0 mm (4.33 in. x 17.13 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.25 kg (4.96 lb)
Weight with packaging [kg(lb)]	3.17 kg (7 lb)
Typical power consumption [W]	28.4 W
Typical heat dissipation [BTU/hour]	96.9 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 38.6 W 100% PoE loads: 162.6 W (PoE: 124 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Not providing the PoE function: 131.71 100% PoE loads: 554.81

Item	Specification
Static power consumption [W]	22.6 W
MTBF [years]	66.56 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	42.2 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	30.5 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules) -5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in

Item	Specification
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz
Maximum input current [A]	3 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.33.3 S5735S-L24T4S-A1

Overview

Table 4-1819 Basic information about the S5735S-L24T4S-A1

Item	Details
Description	S5735S-L24T4S-A1 (24*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
Part Number	98011307
Model	S5735S-L24T4S-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-645 S5735S-L24T4S-A1 appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1820 Ports on the S5735S-L24T4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● Industrial optical modules (only optical modules with 1 Gbit/s transmission speed and transmission distances less than or equal to 10 km are supported) ● 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules (only used for stack connection) ● 10GE-DWDM SFP+ optical modules (only

Port	Connector Type	Description	Available Components
			<p>used for stack connection)</p> <ul style="list-style-type: none"> • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m SFP+ AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735S-L24T4S-A1 has similar indicators to those on the S5735S-L24P4X-A1 except that the S5735S-L24T4S-A1 does not have a PoE mode indicator. For details, see the S5735S-L24P4X-A1.

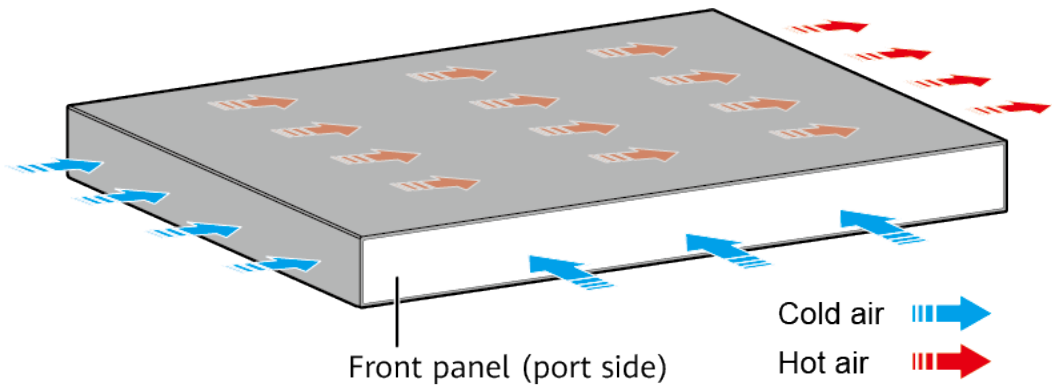
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1821 Technical specifications of the S5735S-L24T4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.45 kg (5.4 lb)
Weight with packaging [kg(lb)]	3.34 kg (7.36 lb)
Typical power consumption [W]	32.7 W
Typical heat dissipation [BTU/hour]	111.58 BTU/hour
Maximum power consumption [W]	47.6 W
Maximum heat dissipation [BTU/hour]	162.42 BTU/hour
Static power consumption [W]	18.4 W
MTBF [years]	66.16 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	39 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules) -5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC; 50/60 Hz High-voltage DC input: 110 V DC to 250 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC; 47 Hz to 63 Hz High-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.33.4 S5735S-L24P4S-A1

Overview

Table 4-1822 Basic information about the S5735S-L24P4S-A1

Item	Details
Description	S5735S-L24P4S-A1 (24*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power)
Part Number	98011322
Model	S5735S-L24P4S-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-646 S5735S-L24P4S-A1 appearance



1	Twenty-four 10/100/1000BASE-T PoE+ ports	2	Four 1000BASE-X ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1823 Ports on the S5735S-L24P4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules (only used for stack connection) ● 10GE-DWDM SFP+ optical modules (only used for stack connection) ● 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) ● 3 m and 10 m SFP+ AOC cables (only used for stack connection)

Port	Connector Type	Description	Available Components
			<ul style="list-style-type: none"> 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

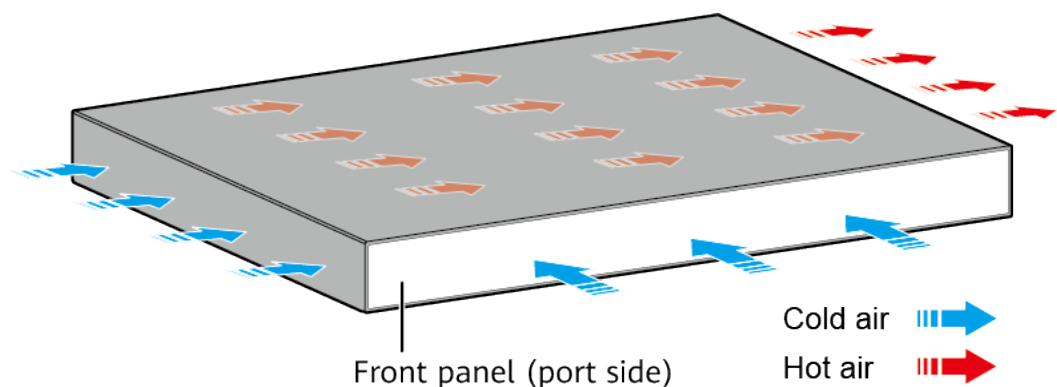
The S5735S-L24P4S-A1 has the same types of indicators as the S5735S-L24P4X-A1. For details, see the S5735S-L24P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1824 Technical specifications of the S5735S-L24P4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.94 kg (6.48 lb)
Weight with packaging [kg(lb)]	3.91 kg (8.62 lb)
Typical power consumption [W]	41.7 W
Typical heat dissipation [BTU/hour]	142.29 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 53.2 W 100% PoE loads: 433.2 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Not providing the PoE function: 181.52 100% PoE loads: 1478.12
Static power consumption [W]	29.6 W
MTBF [years]	55.72 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	50 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	38.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2

Item	Specification
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in

Item	Specification
Rated input voltage [V]	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.33.5 S5735S-L24T4X-A1

Overview

Table 4-1825 Basic information about the S5735S-L24T4X-A1

Item	Details
Description	S5735S-L24T4X-A1 (24*10/100/1000BASE-T ports, 4*XGE SFP+ ports, AC power)
Part Number	98011310
Model	S5735S-L24T4X-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-647 S5735S-L24T4X-A1 appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1826 Ports on the S5735S-L24T4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • Industrial optical modules (only optical modules with transmission distances less than or equal to 10 km are supported) • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-

Port	Connector Type	Description	Available Components
			configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

The S5735S-L24T4X-A1 has similar indicators to those on the S5735S-L24P4X-A1 except that the S5735S-L24T4X-A1 does not have a PoE mode indicator. For details, see the S5735S-L24P4X-A1.

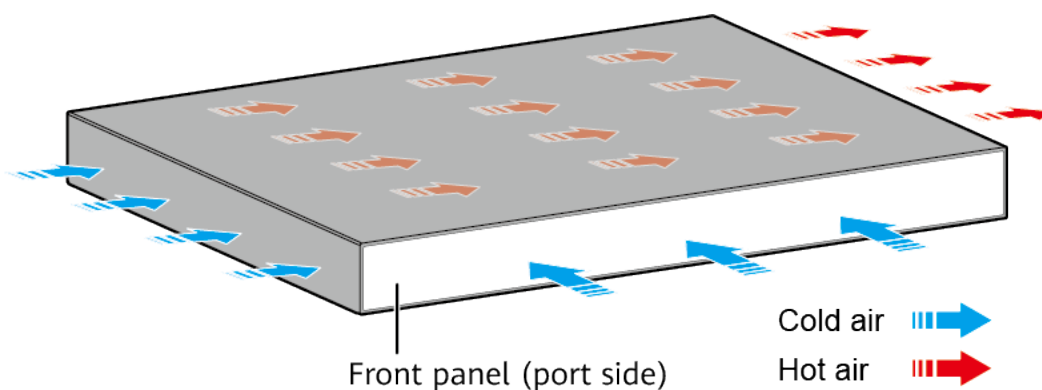
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1827 Technical specifications of the S5735S-L24T4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.45 kg (5.4 lb)
Weight with packaging [kg(lb)]	3.34 kg (7.36 lb)
Typical power consumption [W]	32.7 W
Typical heat dissipation [BTU/hour]	111.58 BTU/hour
Maximum power consumption [W]	47.6 W
Maximum heat dissipation [BTU/hour]	162.42 BTU/hour
Static power consumption [W]	18.4 W
MTBF [years]	64.3 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	39 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported

Item	Specification
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) (0 m to 1800 m altitude, non-industrial optical modules) -5°C to +55°C (23°F to 131°F) (0 m to 1800 m altitude, industrial optical modules with transmission distances less than or equal to 10 km)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC; 50/60 Hz High-voltage DC input: 110 V DC to 250 V DC
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC; 47 Hz to 63 Hz High-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported

Item	Specification
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.33.6 S5735S-L24P4X-A1

Overview

Table 4-1828 Basic information about the S5735S-L24P4X-A1

Item	Details
Description	S5735S-L24P4X-A1 (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, PoE+, AC power)
Part Number	98011328
Model	S5735S-L24P4X-A1
First supported version	V200R020C10

Item	Details
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-648 S5735S-L24P4X-A1 appearance



1	Twenty-four 10/100/1000BASE-T PoE+ ports	2	Four 10GE SFP+ ports
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.

7	AC socket NOTE It is used with an AC power cable .	-	-
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Ports

Table 4-1829 Ports on the S5735S-L24P4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE -T PoE+ port	RJ45	A 10/100/1000BASE -T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

Figure 4-649 Indicators on the switch

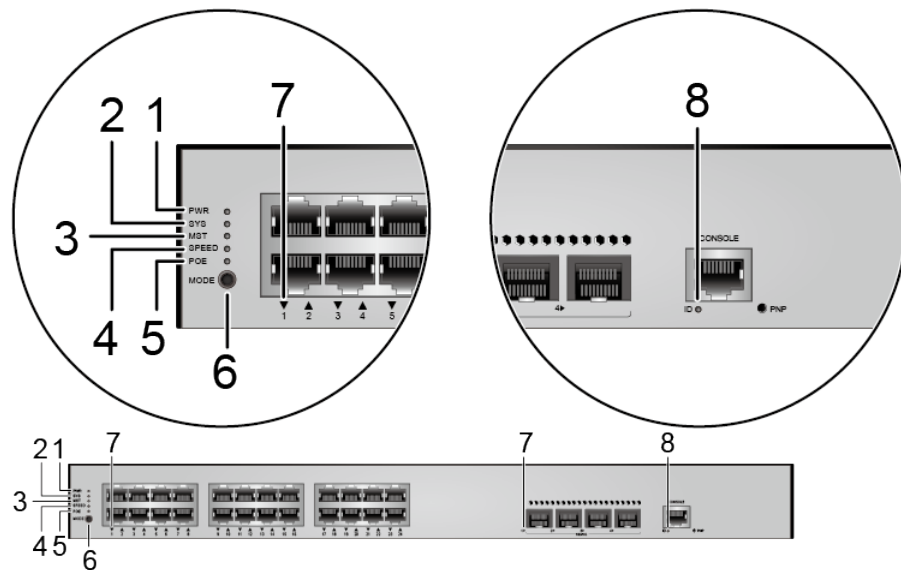


Table 4-1830 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
5	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
6	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
7	-	Service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		<p>Meanings of service port indicators vary in different modes. For details, see Table 4-1831.</p> <p>NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.</p>
8	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.

Table 4-1831 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	<p>The switch is not the master switch in a stack.</p> <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

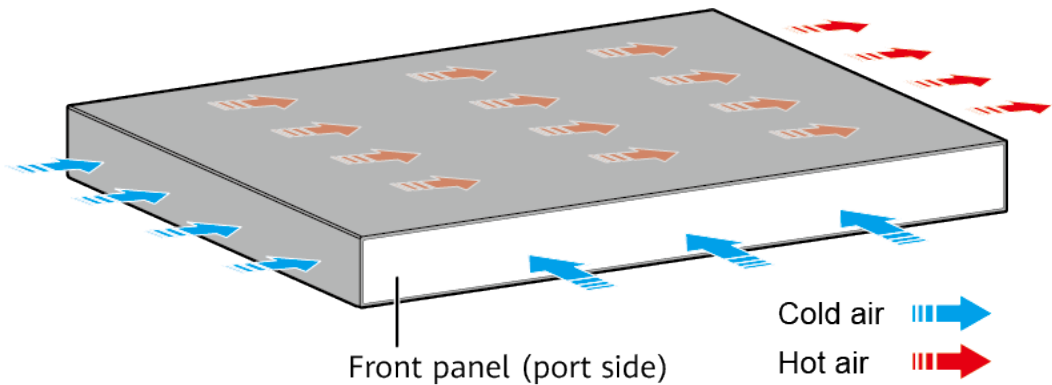
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1832 Technical specifications of the S5735S-L24P4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.94 kg (6.48 lb)
Weight with packaging [kg(lb)]	3.91 kg (8.62 lb)
Typical power consumption [W]	41.7 W
Typical heat dissipation [BTU/hour]	142.29 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 53.2 W 100% PoE loads: 433.2 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Not providing the PoE function: 181.52 100% PoE loads: 1478.12

Item	Specification
Static power consumption [W]	29.6 W
MTBF [years]	55.72 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	50 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	38.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC

Item	Specification
Maximum input current [A]	6 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.33.7 S5735S-L32ST4X-A1

Overview

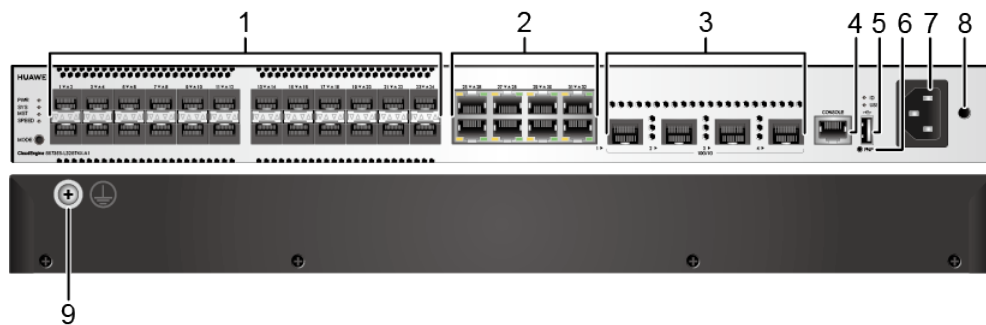
Table 4-1833 Basic information about the S5735S-L32ST4X-A1

Item	Details
Description	S5735S-L32ST4X-A1 (24*GE SFP ports, 8*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power, front access)
Part Number	98011398

Item	Details
Model	S5735S-L32ST4X-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command to check the software versions supported by the device before performing a downgrade. If the device does not support the display system-software information command, it can be downgraded.

Components

Figure 4-650 S5735S-L32ST4X-A1 appearance



1	Twenty-four 100/1000BASE-X ports	2	Eight 10/100/1000BASE-T ports
3	Four 10GE SFP+ ports	4	One console port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	AC socket NOTE It is used with an AC power cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	Ground screw NOTE It is used with a ground cable .	-	-

Ports

Table 4-1834 Ports on the S5735S-L32ST4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-651 Indicators on the switch

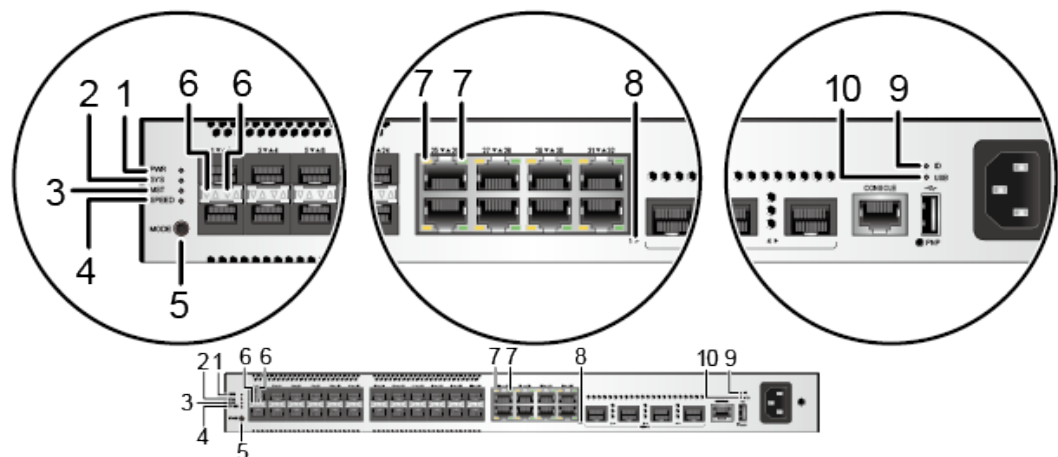


Table 4-1835 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED indicator is off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
6	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see Table 4-1836 and Table 4-1837 . NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.
7	-	Electrical service port indicator (two indicators for each port)	Each electrical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green).		
8	-	Optical service port indicator (one indicator for each port)	Each optical port has one single-color indicator. Arrowheads show the positions of ports.		
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).

No.	Indicator	Name	Color	Status	Description
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Fast blinking	The system is reading data from a USB flash drive.
			Green	Slow blinking	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Fast blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1836 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed mode	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s.

Table 4-1837 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.
MST stack mode (LINK and ACT indicators)	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on simultaneously	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking simultaneously	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.

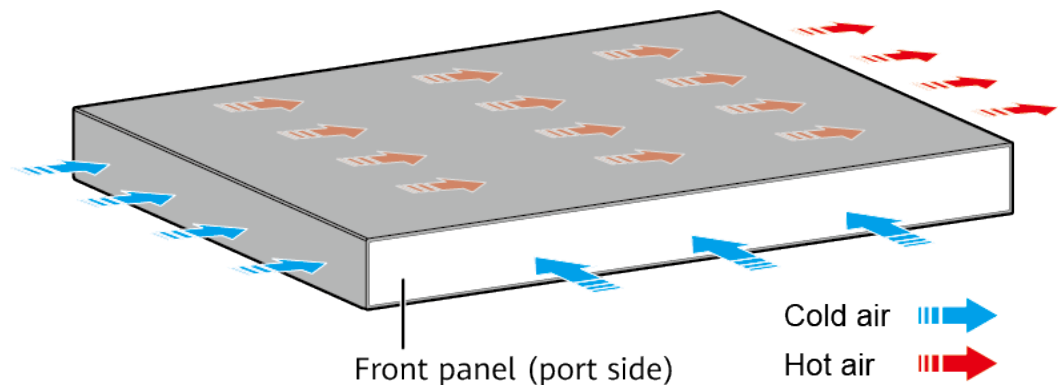
Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1838 Technical specifications of the S5735S-L32ST4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.88 kg (6.35 lb)
Weight with packaging [kg(lb)]	4.03 kg (8.89 lb)
Typical power consumption [W]	53.2 W
Typical heat dissipation [BTU/hour]	181.52 BTU/hour
Maximum power consumption [W]	66.8 W
Maximum heat dissipation [BTU/hour]	227.93 BTU/hour
Static power consumption [W]	39.3 W
MTBF [years]	58.44 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	46.8 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	35 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 110 V DC to 250 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 264 V AC; 47 Hz to 63 HzHigh-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.33.8 S5735S-L48T4S-A1

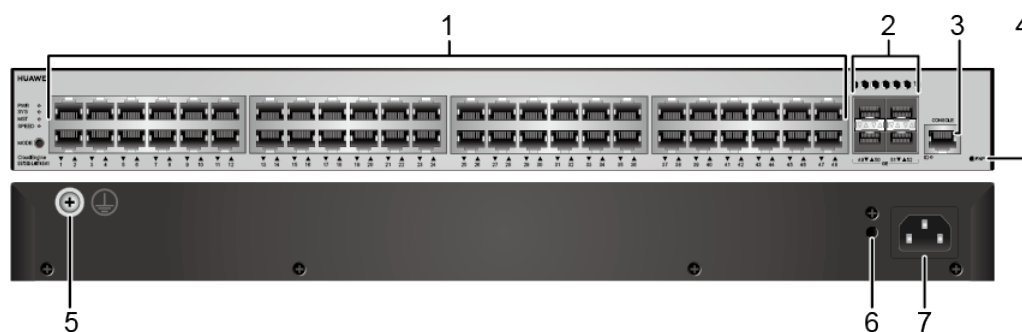
Overview

Table 4-1839 Basic information about the S5735S-L48T4S-A1

Item	Details
Description	S5735S-L48T4S-A1 (48*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
Part Number	98011335
Model	S5735S-L48T4S-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-652 S5735S-L48T4S-A1 appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 4-1840 Ports on the S5735S-L48T4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules (only used for stack connection) • 10GE-DWDM SFP+ optical modules (only used for stack connection) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m SFP+ AOC cables (only used for stack connection)

Port	Connector Type	Description	Available Components
			<ul style="list-style-type: none"> 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

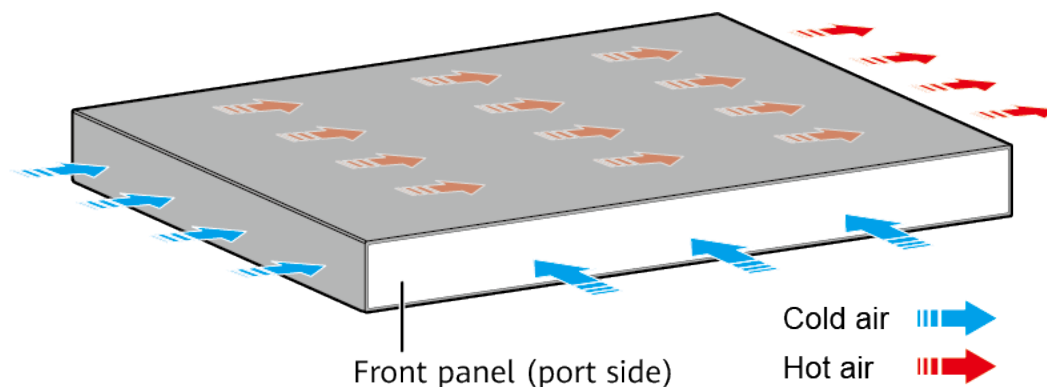
The S5735S-L48T4S-A1 has similar indicators to those on the S5735S-L48P4X-A1 except that the S5735S-L48T4S-A1 does not have USB and PoE mode indicators. For details, see the S5735S-L48P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1841 Technical specifications of the S5735S-L48T4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.76 kg (6.09 lb)
Weight with packaging [kg(lb)]	3.74 kg (8.25 lb)
Typical power consumption [W]	43.3 W
Typical heat dissipation [BTU/hour]	147.74 BTU/hour
Maximum power consumption [W]	50.4 W
Maximum heat dissipation [BTU/hour]	171.97 BTU/hour
Static power consumption [W]	20.3 W
MTBF [years]	56.7 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	48 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	36.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in

Item	Specification
Rated input voltage [V]	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC; 50/60 Hz High-voltage DC input: 110 V DC to 250 V DC
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC; 47 Hz to 63 Hz High-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.33.9 S5735S-L48P4S-A1

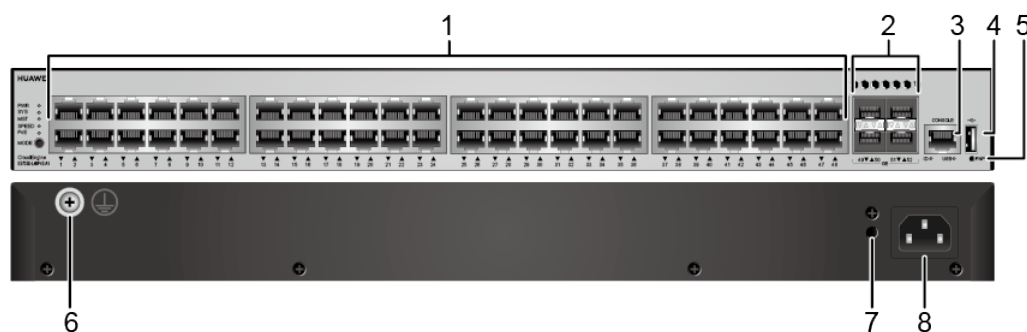
Overview

Table 4-1842 Basic information about the S5735S-L48P4S-A1

Item	Details
Description	S5735S-L48P4S-A1 (48*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power)
Part Number	98011346
Model	S5735S-L48P4S-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-653 S5735S-L48P4S-A1 appearance



1	Forty-eight 10/100/1000BASE-T PoE + ports	2	Four 1000BASE-X ports
3	One console port	4	One USB port

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>

Ports

Table 4-1843 Ports on the S5735S-L48P4S-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	<p>A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.</p> <p>The port supports the PoE function.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 100 or 1000 Mbit/s.	<ul style="list-style-type: none"> ● FE SFP/eSFP optical modules (applicable in V200R021C00 and later versions) ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (only used for stack connection, OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules (only used for stack connection) ● 10GE-DWDM SFP+ optical modules (only used for stack connection) ● 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) ● 3 m and 10 m SFP+ AOC cables (only used for stack connection)

Port	Connector Type	Description	Available Components
			<ul style="list-style-type: none"> 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

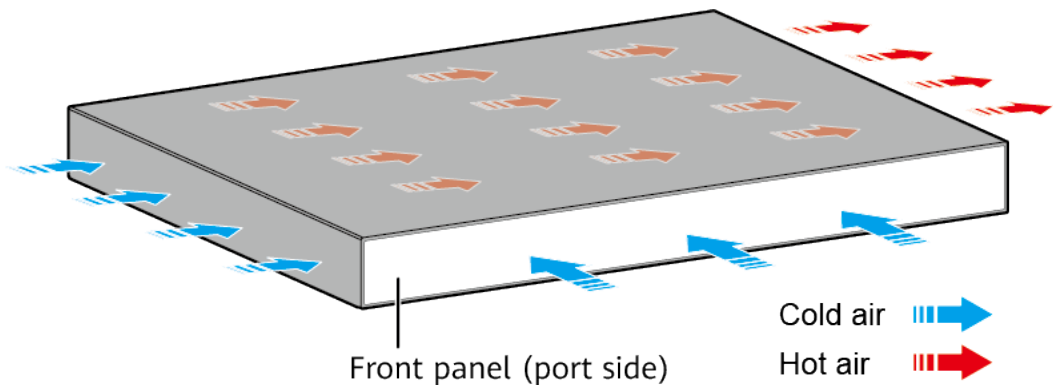
The S5735S-L48P4S-A1 has the same types of indicators as the S5735S-L48P4X-A1. For details, see the S5735S-L48P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1844 Technical specifications of the S5735S-L48P4S-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.23 kg (7.12 lb)
Weight with packaging [kg(lb)]	4.28 kg (9.44 lb)
Typical power consumption [W]	58.7 W

Item	Specification
Typical heat dissipation [BTU/hour]	200.29 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 76.1 W 100% PoE loads: 456.1 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Not providing the PoE function: 259.66 100% PoE loads: 1556.26
Static power consumption [W]	35.3 W
MTBF [years]	44.9 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	50 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	38.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC

Item	Specification
Maximum input current [A]	6 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.33.10 S5735S-L48T4X-A1

Overview

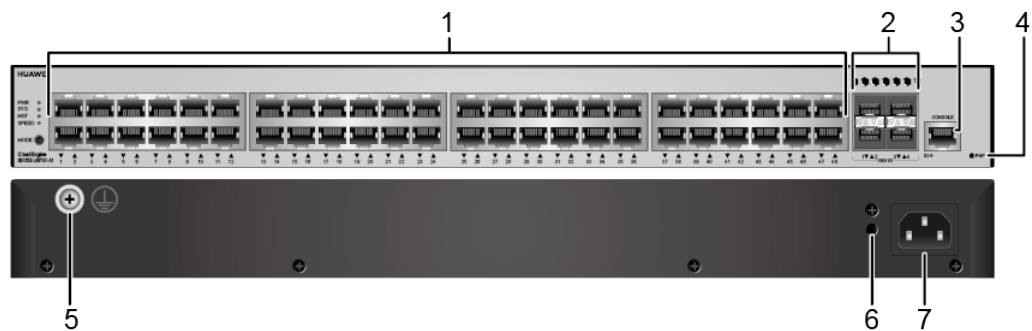
Table 4-1845 Basic information about the S5735S-L48T4X-A1

Item	Details
Description	S5735S-L48T4X-A1 (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011338

Item	Details
Model	S5735S-L48T4X-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-654 S5735S-L48T4X-A1 appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.

7	AC socket NOTE It is used with an AC power cable .	-	-
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Ports

Table 4-1846 Ports on the S5735S-L48T4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE -T port	RJ45	A 10/100/1000BASE -T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE-CWDM eSFP optical modules ● GE-DWDM eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (OSXD22N00 not supported) ● 10GE-CWDM SFP+ optical modules ● 10GE-DWDM SFP+ optical modules ● 1 m and 3 m SFP+ high-speed copper cables ● 3 m and 10 m SFP+ AOC cables ● 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

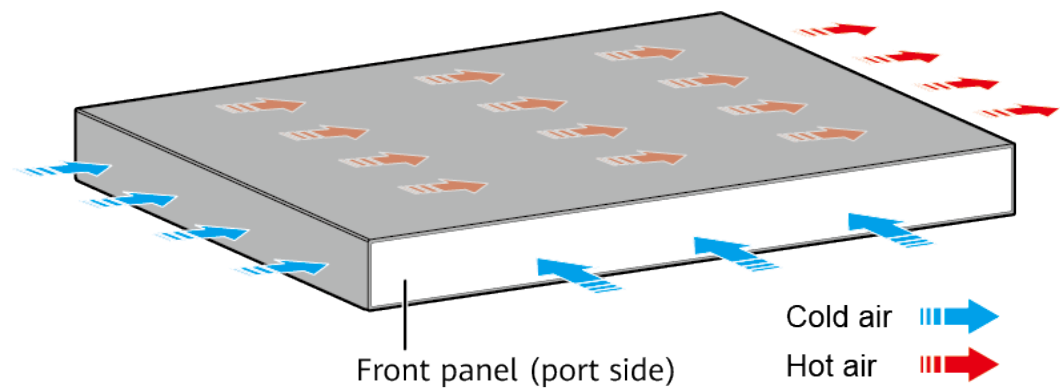
The S5735S-L48T4X-A1 has similar indicators to those on the S5735S-L48P4X-A1 except that the S5735S-L48T4S-A1 does not have USB and PoE mode indicators. For details, see the S5735S-L48P4X-A1.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1847 Technical specifications of the S5735S-L48T4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U

Item	Specification
Weight without packaging [kg(lb)]	2.76 kg (6.09 lb)
Weight with packaging [kg(lb)]	3.74 kg (8.25 lb)
Typical power consumption [W]	43.3 W
Typical heat dissipation [BTU/hour]	147.74 BTU/hour
Maximum power consumption [W]	50.4 W
Maximum heat dissipation [BTU/hour]	171.97 BTU/hour
Static power consumption [W]	20.3 W
MTBF [years]	55.33 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	48 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	36.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The operating temperature ranges from -5°C to +45°C (23°F to 113°F) when optical modules with transmission distances greater than or equal to 70 km are used.</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none">• AC input: 100 V AC to 240 V AC; 50/60 Hz• High-voltage DC input: 110 V DC to 250 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC; 47 Hz to 63 Hz High-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.33.11 S5735S-L48P4X-A1

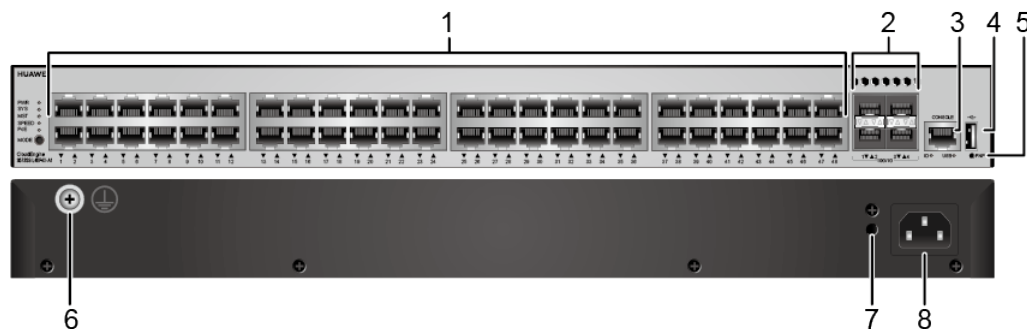
Overview

Table 4-1848 Basic information about the S5735S-L48P4X-A1

Item	Details
Description	S5735S-L48P4X-A1 (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, PoE+, AC power)
Part Number	98011344
Model	S5735S-L48P4X-A1
First supported version	V200R020C10
Remarks	Some models cannot be downgraded due to component upgrade. Therefore, you are advised to run the display system-software information command (supported in V200R021C00 and later versions) to check the software versions supported by the device before performing a downgrade.

Components

Figure 4-655 S5735S-L48P4X-A1 appearance



1	Forty-eight 10/100/1000BASE-T PoE + ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>

Ports

Table 4-1849 Ports on the S5735S-L48P4X-A1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	<p>A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.</p> <p>The port supports the PoE function.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-656 Indicators on the switch

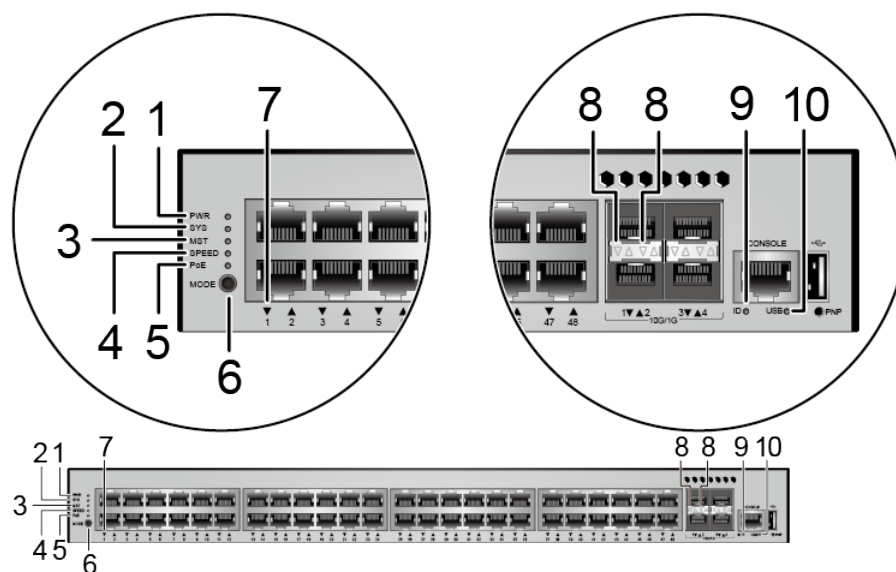


Table 4-1850 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
5	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
6	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
7	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		<p>Meanings of service port indicators vary in different modes. For details, see Table 4-1851 and Table 4-1852.</p> <p>NOTE If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.</p>
8	-	Optical service port indicator (two indicators for each port)	<p>Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green).</p> <p>Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.</p>		
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.

No.	Indicator	Name	Color	Status	Description
10	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Fast blinking	The system is reading data from a USB flash drive.
			Green	Slow blinking	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Fast blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1851 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-1852 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.

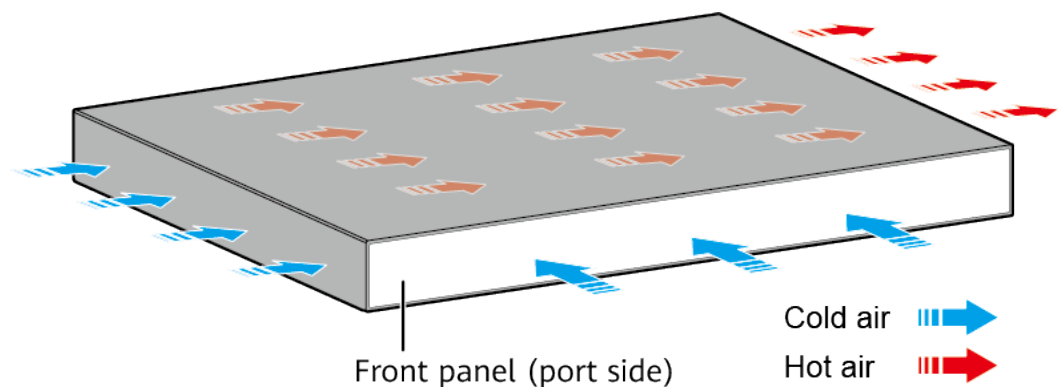
Display Mode	Color	Status	Description
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1853 Technical specifications of the S5735S-L48P4X-A1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.23 kg (7.12 lb)
Weight with packaging [kg(lb)]	4.28 kg (9.44 lb)
Typical power consumption [W]	58.7 W
Typical heat dissipation [BTU/hour]	200.29 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 76.1 W 100% PoE loads: 456.1 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Not providing the PoE function: 259.66 100% PoE loads: 1556.26
Static power consumption [W]	35.3 W
MTBF [years]	44.03 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	50 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	38.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2

Item	Specification
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in

Item	Specification
Rated input voltage [V]	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.34 S5735S-L-M

4.34.1 S5735S-L24T4S-MA

Version Mapping

Table 4-1854 lists the mapping between the S5735S-L24T4S-MA chassis and software versions.

Table 4-1854 Version mapping

Series	Model	Software Version
S5735S-L-M	S5735S-L24T4S-MA	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-657 S5735S-L24T4S-MA appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1855](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1855 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1856](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1856 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1857](#).

Table 4-1857 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1858](#) describes the attributes of an ETH management port.

Table 4-1858 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L24T4S-MA has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L24T4S-MA does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24T4S-MA has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L24T4S-MA has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-1859](#) lists technical specifications of the S5735S-L24T4S-MA.

Table 4-1859 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	92.82 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.08 kg (9 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	34 W
Typical power consumption (30% of traffic load)	28 W <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010916

4.34.2 S5735S-L24P4S-MA

Version Mapping

[Table 4-1860](#) lists the mapping between the S5735S-L24P4S-MA chassis and software versions.

Table 4-1860 Version mapping

Series	Model	Software Version
S5735S-L-M	S5735S-L24P4S-MA	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-658 S5735S-L24P4S-MA appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1861](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1861 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1862](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1862 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1863](#).

Table 4-1863 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1864](#) describes the attributes of an ETH management port.

Table 4-1864 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

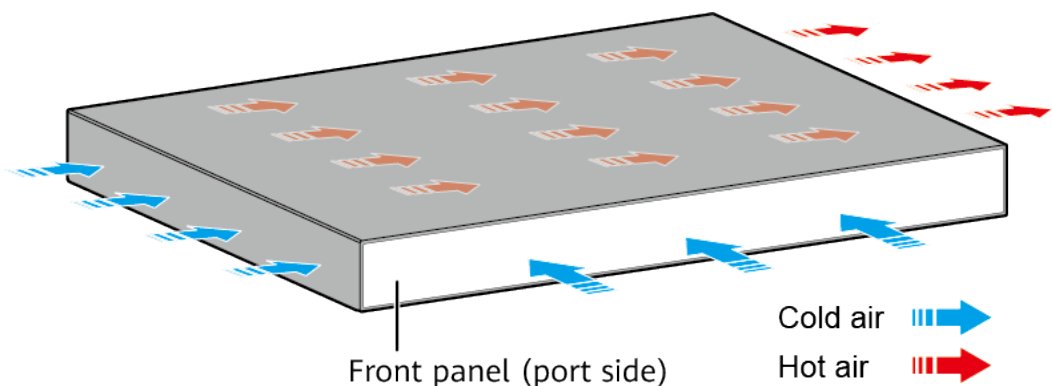
The S5735S-L24P4S-MA has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24P4S-MA has a built-in power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation

The S5735S-L24P4S-MA has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1865 lists technical specifications of the S5735S-L24P4S-MA.

Table 4-1865 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	76.1 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9. lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 53 W • 100% PoE loads: 451 W (PoE: 380 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	39 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010926

4.34.3 S5735S-L48T4S-MA

Version Mapping

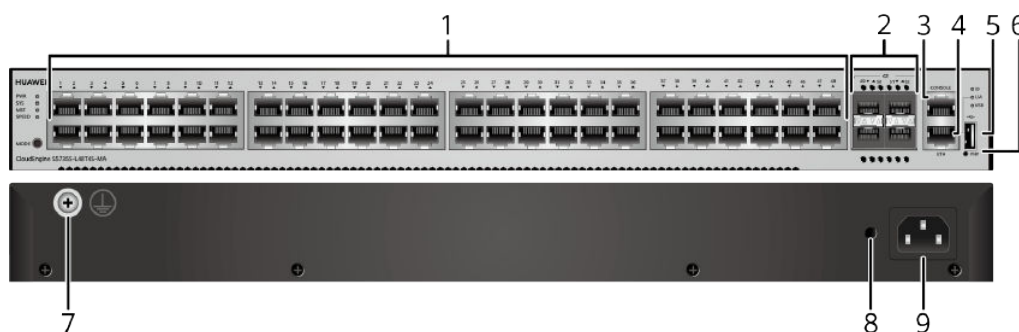
[Table 4-1866](#) lists the mapping between the S5735S-L48T4S-MA chassis and software versions.

Table 4-1866 Version mapping

Series	Model	Software Version
S5735S-L-M	S5735S-L48T4S-MA	Supported in V200R019C10SPC500 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-659 S5735S-L48T4S-MA appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1867](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1867 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1868](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1868 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1869](#).

Table 4-1869 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1870](#) describes the attributes of an ETH management port.

Table 4-1870 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

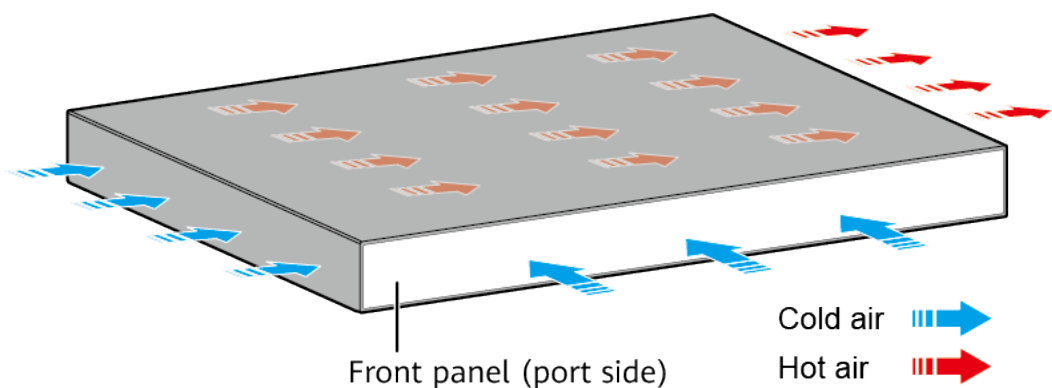
The S5735S-L48T4S-MA has similar indicators to those on the S5735S-L12P4S-A except that the S5735S-L48T4S-MA does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L48T4S-MA has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L48T4S-MA has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1871](#) lists technical specifications of the S5735S-L48T4S-MA.

Table 4-1871 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.36 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 264 V AC, 47 Hz to 63 HzHigh-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	53 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	37 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 50°C (122°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 50°C (122°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010971

4.35 S5735-L-I

4.35.1 S5735-L8T4X-IA1

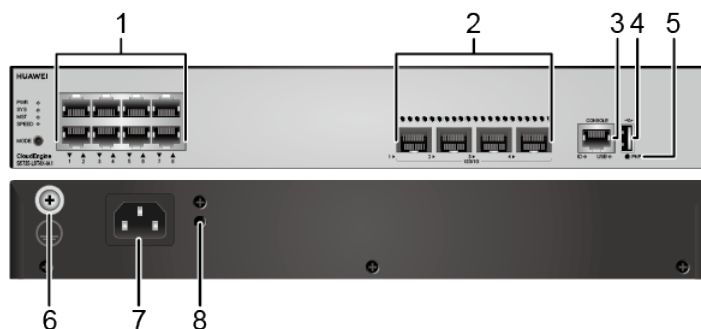
Overview

Table 4-1872 Basic information about the S5735-L8T4X-IA1

Item	Details
Description	S5735-L8T4X-IA1 (8*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011581
Model	S5735-L8T4X-IA1
First supported version	V200R021C00

Components

Figure 4-660 S5735-L8T4X-IA1 appearance



1	Eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port
5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>

Ports

Table 4-1873 Ports on the S5735-L8T4X-IA1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	Industrial optical modules

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
USB port	USB 2.0 Type A	The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0. USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.	USB flash drive

Indicators and Buttons

The S5735-L8T4X-IA1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L8T4X-IA1 does not have a PoE mode indicator. For details, see the S5735-L24P4X-A1.

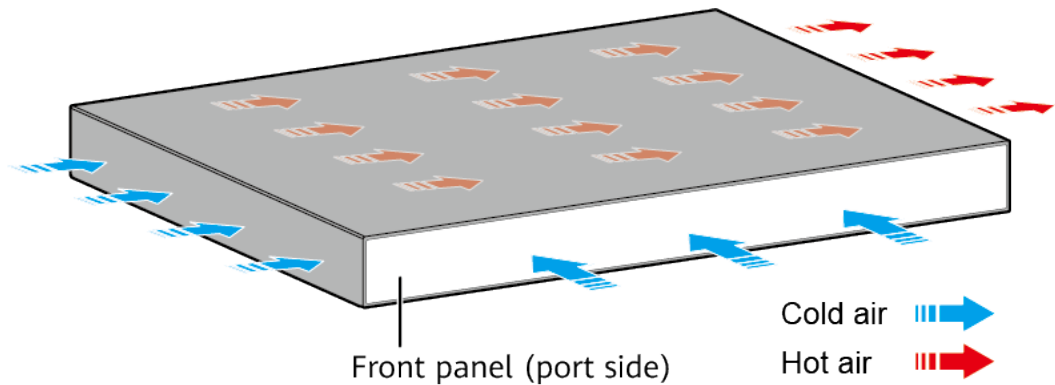
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1874 Technical specifications of the S5735-L8T4X-IA1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 300.0 mm x 220.0 mm (1.72 in. x 11.81 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 300.0 mm x 227.0 mm (1.72 in. x 11.81 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	110.0 mm x 435.0 mm x 360.0 mm (4.33 in. x 17.13 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	1.97 kg (4.34 lb)
Weight with packaging [kg(lb)]	2.78 kg (6.13 lb)
Typical power consumption [W]	23.5 W
Typical heat dissipation [BTU/hour]	80.18 BTU/hour
Maximum power consumption [W]	30 W
Maximum heat dissipation [BTU/hour]	102.36 BTU/hour
Static power consumption [W]	15.4 W

Item	Specification
MTBF [years]	67.07 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	43 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.5 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-40°C to +65°C (-40°F to +149°F) at an altitude of 0–1800 m (0–5906 ft.) NOTE -40°C to -30°C (-40°F to -22°F): Stable port performance can be achieved only when at least two Ethernet electrical ports go Up.
Short-term operating temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 65°C (149°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 65°C (149°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 65°C (149°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +75°C (-40°F to +167°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB

Item	Specification
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.35.2 S5735-L8P4X-IA1

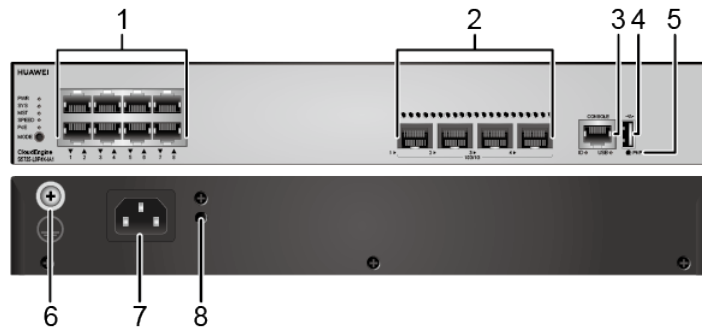
Overview

Table 4-1875 Basic information about the S5735-L8P4X-IA1

Item	Details
Description	S5735-L8P4X-IA1 (8*10/100/1000BASE-T ports, 4*10GE SFP+ ports, PoE+, AC power)
Part Number	98011579
Model	S5735-L8P4X-IA1
First supported version	V200R021C00

Components

Figure 4-661 S5735-L8P4X-IA1 appearance



1	Eight 10/100/1000BASE-T PoE+ ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port
5	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	Ground screw NOTE It is used with a ground cable .
7	AC socket NOTE It is used with an AC power cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.

Ports

Table 4-1876 Ports on the S5735-L8P4X-IA1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	Industrial optical modules
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

The S5735-L8P4X-IA1 has the same types of indicators as the S5735-L24P4X-A1. For details, see the S5735-L24P4X-A1.

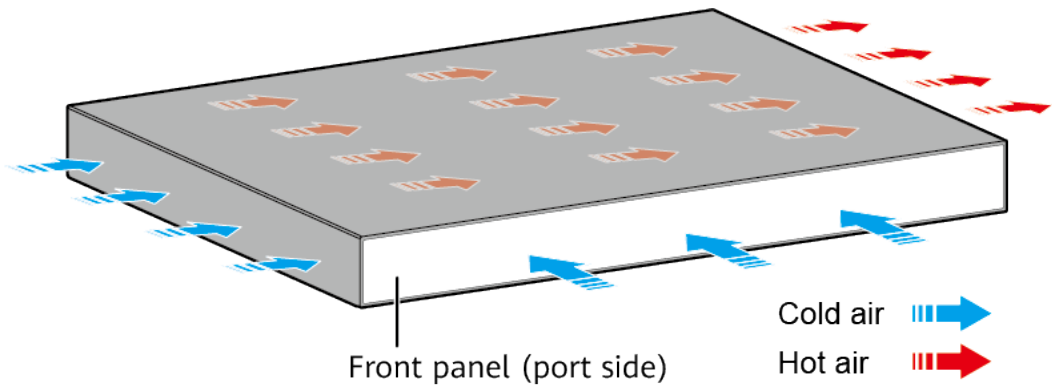
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1877 Technical specifications of the S5735-L8P4X-IA1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 300.0 mm x 220.0 mm (1.72 in. x 11.81 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 300.0 mm x 227.0 mm (1.72 in. x 11.81 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	110.0 mm x 435.0 mm x 360.0 mm (4.33 in. x 17.13 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.23 kg (4.92 lb)
Weight with packaging [kg(lb)]	3.04 kg (6.7 lb)
Typical power consumption [W]	26.2 W
Typical heat dissipation [BTU/hour]	89.40 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 33 W Full PoE load: 178 W (PoE: 124 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Without PoE: 112.60 Full PoE load: 607.35
Static power consumption [W]	18.7 W

Item	Specification
MTBF [years]	62.46 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	42.2 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	30.5 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-40°C to +65°C (-40°F to +149°F) at an altitude of 0–1800 m (0–5906 ft.) NOTE -40°C to -30°C (-40°F to -22°F): Stable port performance can be achieved only when at least two Ethernet electrical ports go Up.
Short-term operating temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 65°C (149°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 65°C (149°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 65°C (149°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +75°C (-40°F to +167°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz
Maximum input current [A]	3 A
Memory	512 MB
Flash memory	512 MB

Item	Specification
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.35.3 S5735-L24T4X-IA1

Overview

Table 4-1878 Basic information about the S5735-L24T4X-IA1

Item	Details
Description	S5735-L24T4X-IA1 (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
Part Number	98011597
Model	S5735-L24T4X-IA1
First supported version	V200R021C00

Components

Figure 4-662 S5735-L24T4X-IA1 appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One USB port
5	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	Ground screw NOTE It is used with a ground cable .
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .

Ports

Table 4-1879 Ports on the S5735-L24T4X-IA1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	Industrial optical modules
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

The S5735-L24T4X-IA1 has similar indicators to those on the S5735-L24P4X-A1 except that the S5735-L24T4X-IA1 does not have a PoE mode indicator. For details, see the S5735-L24P4X-A1.

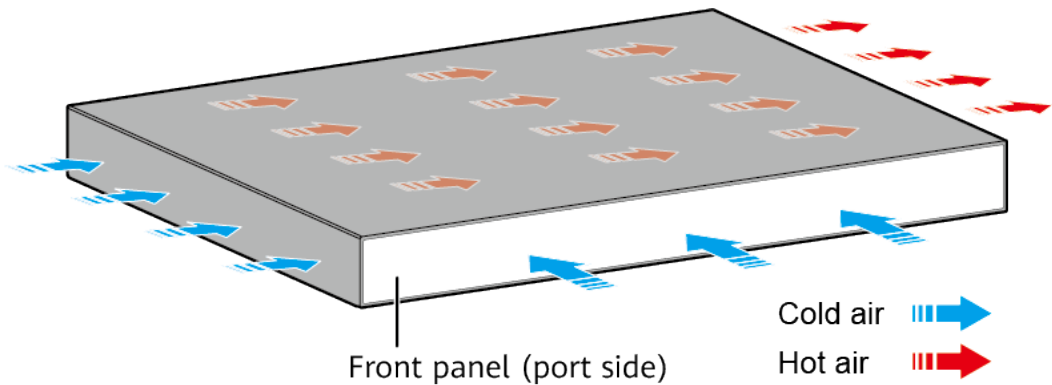
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1880 Technical specifications of the S5735-L24T4X-IA1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.5 kg (5.51 lb)
Weight with packaging [kg(lb)]	3.3 kg (7.28 lb)
Typical power consumption [W]	29.8 W
Typical heat dissipation [BTU/hour]	101.68 BTU/hour
Maximum power consumption [W]	46 W
Maximum heat dissipation [BTU/hour]	155.96 BTU/hour
Static power consumption [W]	21.8 W
MTBF [years]	62.05 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	39 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	27.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-40°C to +65°C (-40°F to +149°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE -40°C to -30°C (-40°F to -22°F): Stable port performance can be achieved only when at least four of the first eight Ethernet electrical ports go Up.
Short-term operating temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 65°C (149°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 65°C (149°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 65°C (149°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +75°C (-40°F to +167°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 110 V DC to 250 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 264 V AC; 47 Hz to 63 Hz • High-voltage DC input: 88 V DC to 300 V DC

Item	Specification
Maximum input current [A]	2 A
Memory	512 MB
Flash memory	512 MB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.36 S5735-S

4.36.1 S5735-S24T4X

Version Mapping

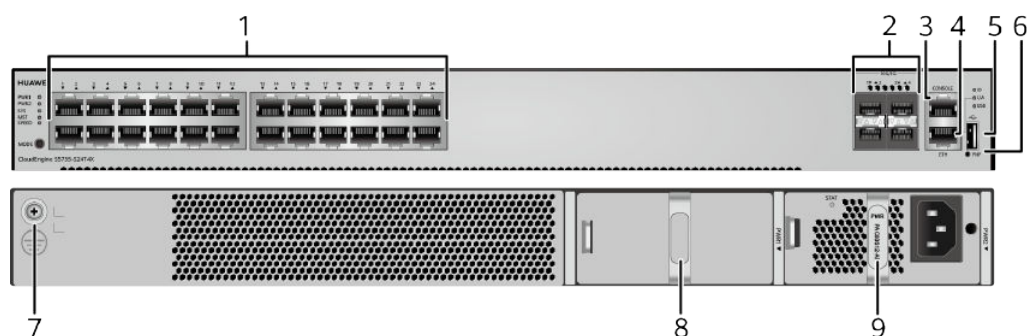
[Table 4-1881](#) lists the mapping between the S5735-S24T4X chassis and software versions.

Table 4-1881 Version mapping

Series	Model	Software Version
S5735-S	S5735-S24T4X	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-663 S5735-S24T4X appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1882](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1882 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1883](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1883 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1884](#).

Table 4-1884 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1885](#) describes the attributes of an ETH management port.

Table 4-1885 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

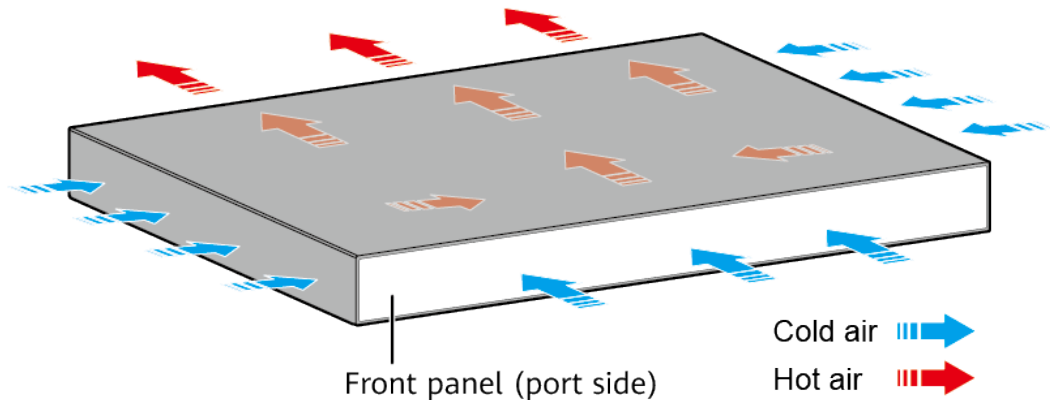
The S5735-S24T4X has similar indicators to those on the S5735-S24P4X except that the S5735-S24T4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5735-S24T4X has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1886](#) lists technical specifications of the S5735-S24T4X.

Table 4-1886 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	69.42 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.21 kg (15.9 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	46 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	31 W

Item	Description
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010938

4.36.2 S5735-S24P4X

Version Mapping

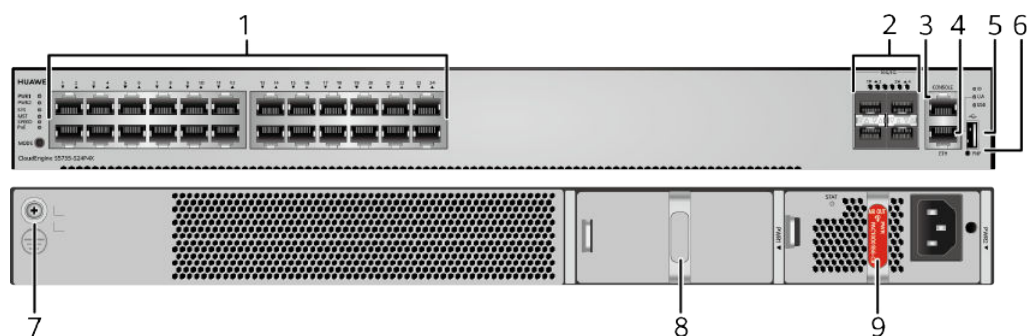
Table 4-1887 lists the mapping between the S5735-S24P4X chassis and software versions.

Table 4-1887 Version mapping

Series	Model	Software Version
S5735-S	S5735-S24P4X	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-664 S5735-S24P4X appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions)
9	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1888](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1888 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1889](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1889 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1890](#).

Table 4-1890 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-1891** describes the attributes of an ETH management port.

Table 4-1891 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 4-665 Indicators on the S5735-S24P4X

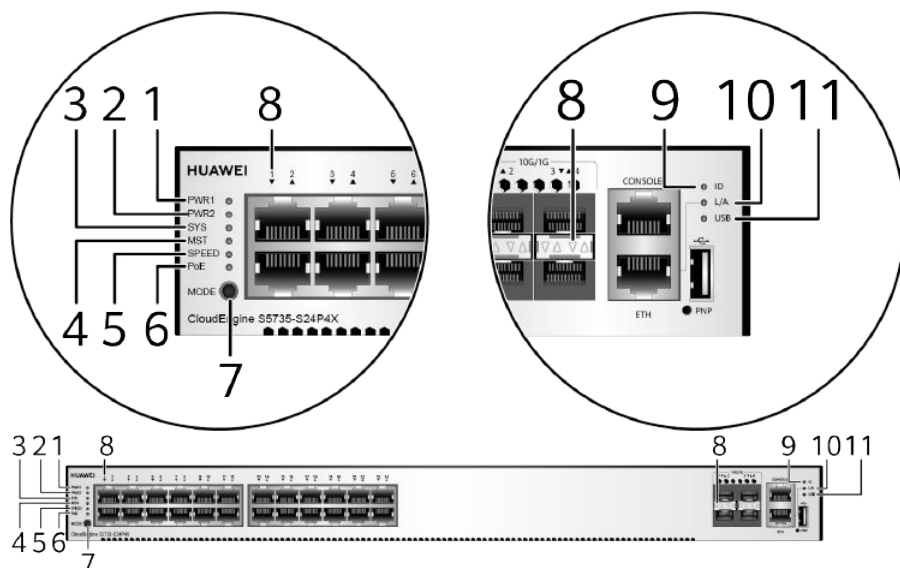


Table 4-1892 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 4-1893 and Table 4-1894 .		
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
11	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-1893 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).

Display Mode	Color	Status	Description
	Green and yellow	Blinking green and yellow alternately	<p>The port fails to supply power to a PD due to one of the following reasons:</p> <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.

Table 4-1894 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	<p>The switch is not the master switch in a stack.</p> <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s. 1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1895 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	-	874 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

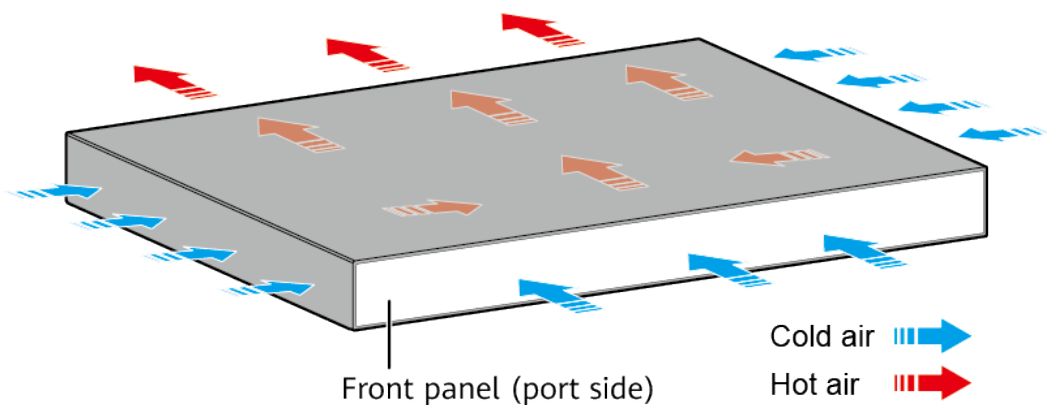
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (110 V)	–	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5735-S24P4X has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1896](#) lists technical specifications of the S5735-S24P4X.

Table 4-1896 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	59.88 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.39 kg (16.29 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DCDC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DCDC input: -38.4 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 65 W • 100% PoE loads: 847 W (PoE: 720 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	51 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010940

4.36.3 S5735-S32ST4X

Version Mapping

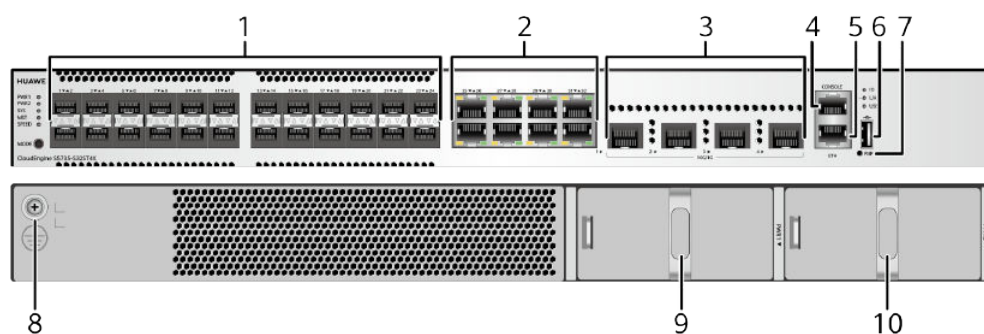
[Table 4-1897](#) lists the mapping between the S5735-S32ST4X chassis and software versions.

Table 4-1897 Version mapping

Series	Model	Software Version
S5735-S	S5735-S32ST4X	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-666 S5735-S32ST4X appearance



1	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module (maximum transmission distance ≤ 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Eight 10/100/1000BASE-T ports
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

9	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	1 0	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
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Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-1898](#) describes the attributes of a 100/1000BASE-X port.

Table 4-1898 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1899](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1899 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1900](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1900 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1901](#).

Table 4-1901 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1902](#) describes the attributes of an ETH management port.

Table 4-1902 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

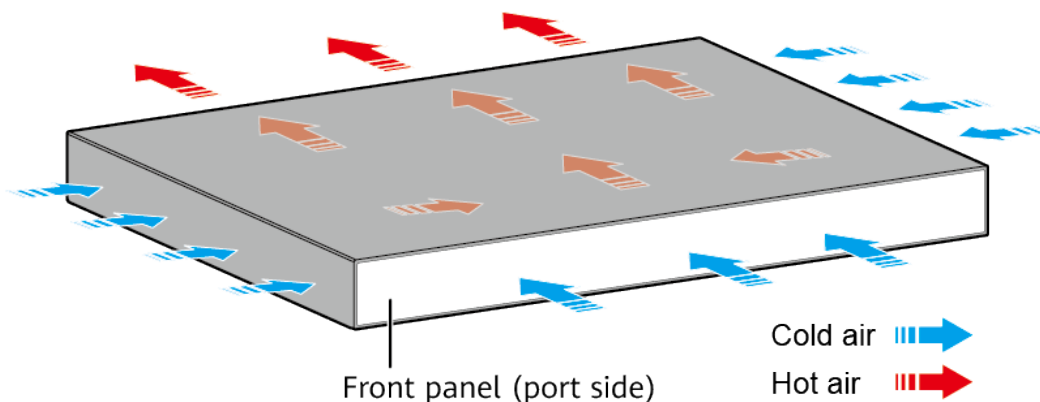
The S5735-S32ST4X has similar indicators to those on the S5735-S24P4X except that the S5735-S32ST4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5735-S32ST4X has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1903](#) lists technical specifications of the S5735-S32ST4X.

Table 4-1903 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	68.59 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.47 kg (16.47 lb)
Stack ports	Any 10/100/1000BASE-T ports, 100/1000BASE-X ports, or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> • AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	66 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	47 W

Item	Description
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010931

4.36.4 S5735-S48T4X

Version Mapping

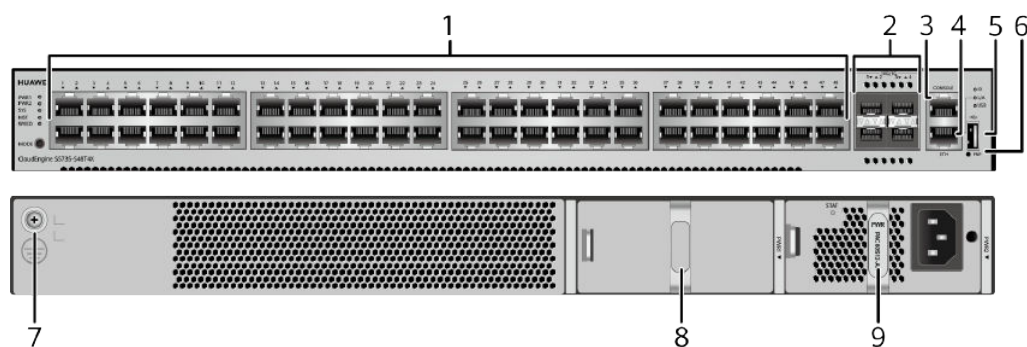
Table 4-1904 lists the mapping between the S5735-S48T4X chassis and software versions.

Table 4-1904 Version mapping

Series	Model	Software Version
S5735-S	S5735-S48T4X	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-667 S5735-S48T4X appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)

9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1905](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1905 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1906](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1906 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1907](#).

Table 4-1907 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1908](#) describes the attributes of an ETH management port.

Table 4-1908 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

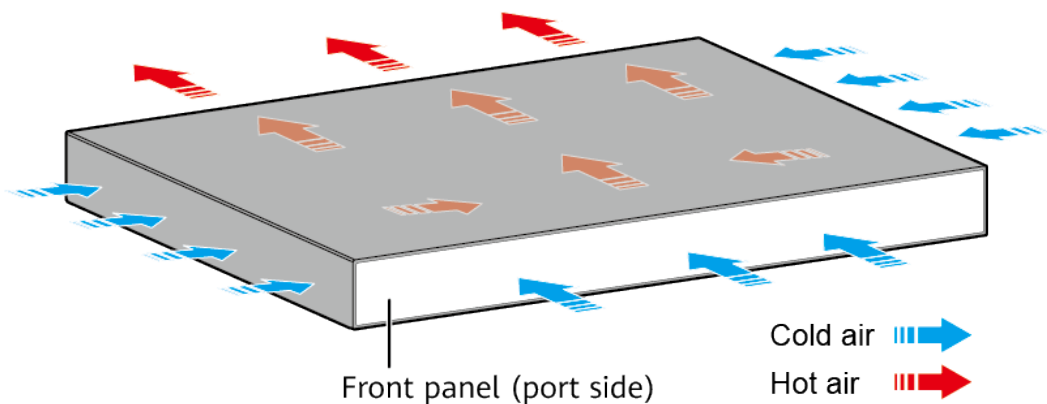
The S5735-S48T4X has similar indicators to those on the S5735-S24P4X except that the S5735-S48T4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5735-S48T4X has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1909 lists technical specifications of the S5735-S48T4X.

Table 4-1909 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	74.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.69 kg (16.95 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC

Item	Description
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	59 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	40 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> ● The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. ● The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. ● The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010941

4.36.5 S5735-S48P4X

Version Mapping

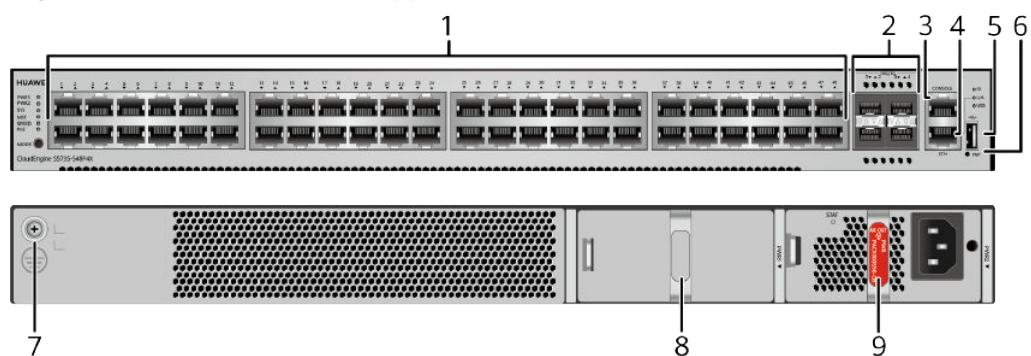
Table 4-1910 lists the mapping between the S5735-S48P4X chassis and software versions.

Table 4-1910 Version mapping

Series	Model	Software Version
S5735-S	S5735-S48P4X	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-668 S5735-S48P4X appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions)
9	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1911](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1911 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1912](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1912 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1913](#).

Table 4-1913 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1914](#) describes the attributes of an ETH management port.

Table 4-1914 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735-S48P4X has the same types of indicators as the S5735-S24P4X. For details, see [Indicator Description](#).

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1915 Power supply configurations

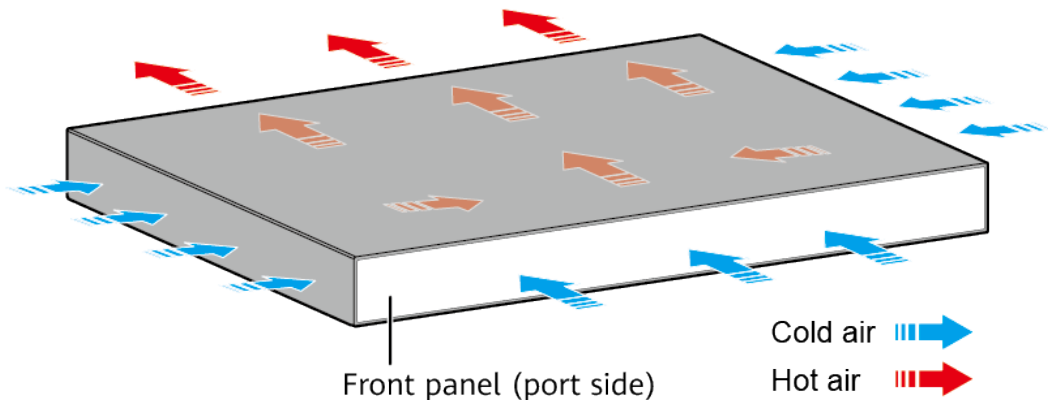
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	874 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W AC (110 V) 1000 W DC	–	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5735-S48P4X has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1916](#) lists technical specifications of the S5735-S48P4X.

Table 4-1916 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	54.88 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.64 kg (16.84 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Not providing the PoE function: 77 W ● 100% PoE loads: 1661 W (PoE: 1440 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	59 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010943

4.36.6 S5735-S48S4X

Version Mapping

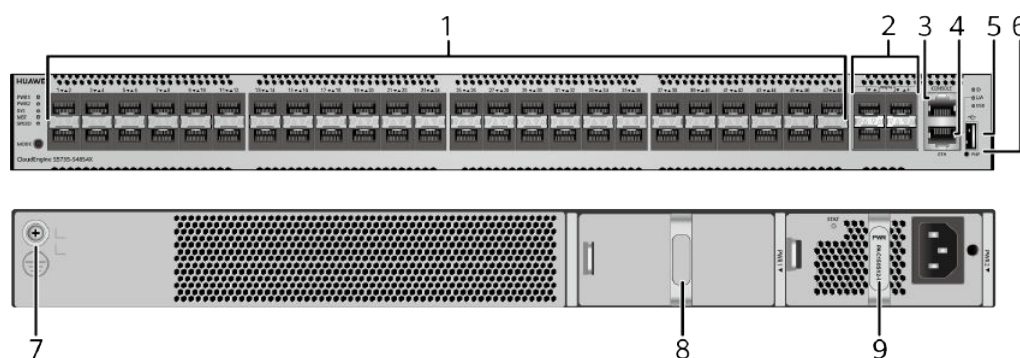
[Table 4-1917](#) lists the mapping between the S5735-S48S4X chassis and software versions.

Table 4-1917 Version mapping

Series	Model	Software Version
S5735-S	S5735-S48S4X	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-669 S5735-S48S4X appearance



1	Forty-eight 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.12 PAC150S12-R (150 W AC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-1918](#) describes the attributes of a 100/1000BASE-X port.

Table 4-1918 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z

Attribute	Description
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1919](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1919 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1920](#).

Table 4-1920 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or

remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1921](#) describes the attributes of an ETH management port.

Table 4-1921 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

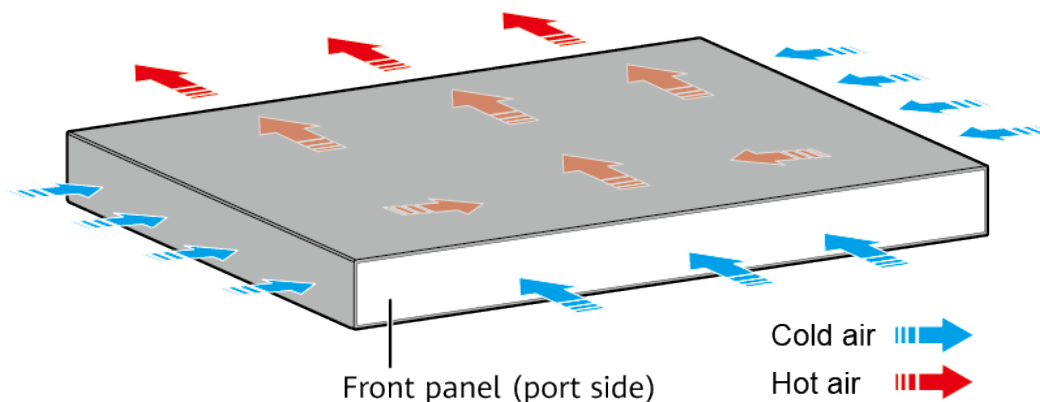
The S5735-S48S4X has similar indicators to those on the S5735-S24P4X except that the S5735-S48S4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5735-S48S4X has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1922](#) lists technical specifications of the S5735-S48S4X.

Table 4-1922 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	66.33 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	NA
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.27 kg (18.23 lb)
Stack ports	Any 100/1000BASE-X ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> • AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz • DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	89 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	67 W
Operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 61 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010947

4.37 S5735-S-I

4.37.1 S5735-S4T2X-IA150G1

Version Mapping

Table 4-1923 lists the mapping between the S5735-S4T2X-IA150G1 chassis and software versions.

Table 4-1923 Version mapping

Series	Model	Software Version
S5735-S-I	S5735-S4T2X-IA150G1	V200R019C10 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-670 S5735-S4T2X-IA150G1 appearance

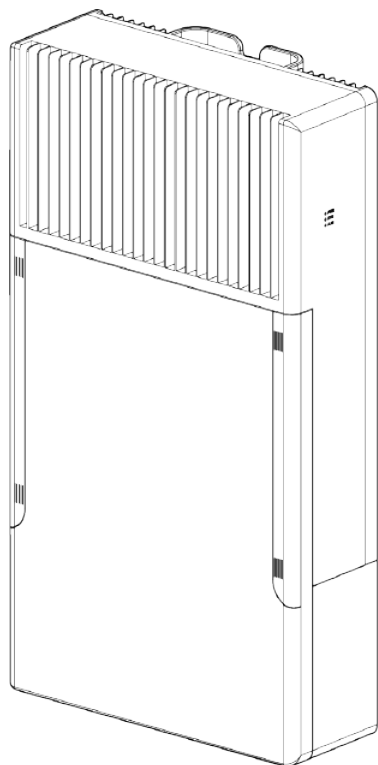
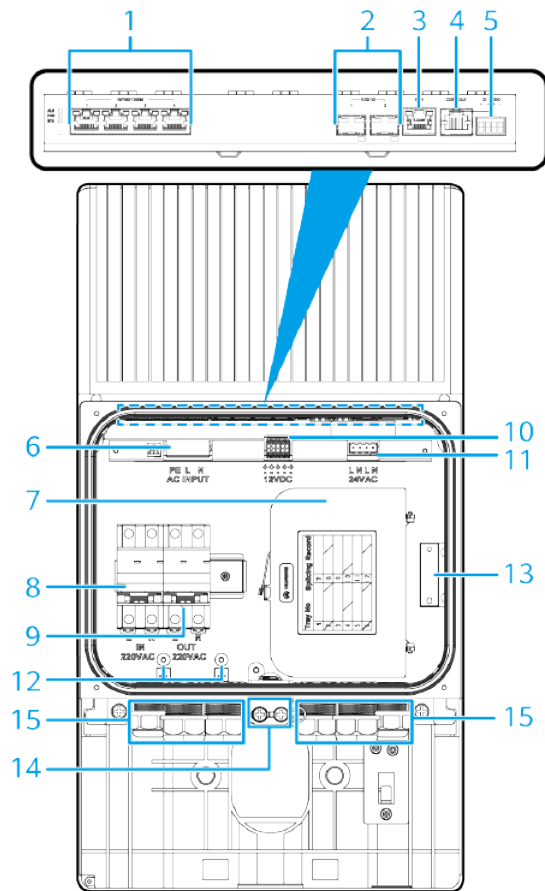


Figure 4-671 Interior of the S5735-S4T2X-IA150G1 maintenance compartment



1	Four 10/100/1000BASE-T ports	2 Two 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • Industrial optical module • GPON optical module • Third-party GPON optical modules (Hisense LTE3415-SH+ and CIG G-97S) NOTE If one port uses a GPON optical module, the other port cannot be used at the same time.
3	One ETH management port	4 One console port

5	<p>Monitoring port</p> <ul style="list-style-type: none"> • DI: signal input line, which connects to a door status sensor. • DO: signal output line, which connects to a camera alarm signal cable. <p>NOTE</p> <p>The monitoring port can be used to detect the status of a connected external device, such as the opening and closing of the maintenance compartment door.</p> <p>The monitoring port is used with a conductive cable. The minimum cross-sectional area of the conductor connected to a conductive cable is 0.3 mm² or 22 AWG, and the maximum cross-sectional area of the conductor is 1.3 mm² or 16 AWG.</p> <p>For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the <i>Configuration Guide - Device Management Configuration</i>.</p>	6	<p>220 V AC power input socket</p>
7	<p>Fiber management tray (FMT)</p> <p>NOTE</p> <p>The FMT is optional.</p>	8	<p>220 V AC power input circuit breaker</p> <p>NOTICE</p> <p>This circuit breaker is optional.</p> <p>Connect an external power cable to the 220 V AC power input circuit breaker when it is in use.</p> <p>An external power cable needs to be prepared onsite. Ensure that the wires of the external cable are correctly connected to the L and N sockets of a plug.</p> <p>The circuit breaker supports a maximum of 32 A input current and provides two 220 V AC outputs.</p> <ul style="list-style-type: none"> • One output is connected to the AC power input socket of the switch to supply power to the switch. • The other output is connected to the 220 V AC power output circuit breaker of the switch to supply power to connected PDs (such as strobe lights and non-PoE PTZ dome cameras).

9	<p>220 V AC power output circuit breaker</p> <p>NOTICE</p> <p>This circuit breaker is optional.</p> <p>The 220 V AC power output circuit breaker provides overcurrent protection only, and is only used for external power conversion. It supports a maximum of 10 A output current.</p> <p>The connected external devices need to provide certain surge protection capabilities. It is recommended that the surge protection capabilities for both differential and common modes be 20 kA.</p>	10	<p>12 V DC power output socket</p> <p>NOTE</p> <p>The switch provides five 12 V DC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p>
11	<p>24 V AC power output socket</p> <p>NOTE</p> <p>The switch provides two 24 V AC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p>	12	<p>PE cable ground terminal</p> <p>NOTE</p> <p>It is used to ground a PE power cable for 220 V AC input or output.</p>
13	<p>Door status sensor</p> <p>NOTE</p> <p>It reports an alarm when the maintenance compartment door of the switch is opened.</p>	14	<p>Ground screw</p> <p>NOTE</p> <p>It is used to ground the switch. The ground cable needs to be purchased separately.</p>
15	<p>Cable outlet</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1924](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1924 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1925](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1925 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1926](#).

Table 4-1926 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 4-1927** describes the attributes of an ETH management port.

Table 4-1927 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

Indicator Description

Figure 4-672 Indicators on the outside of the S5735-S4T2X-IA150G1

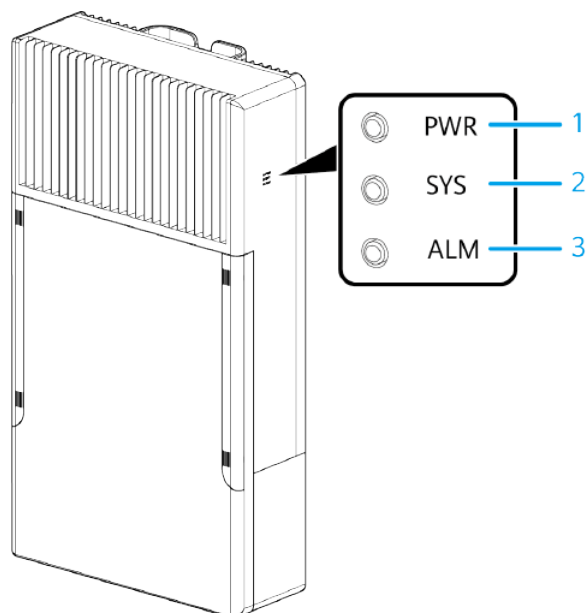


Figure 4-673 Indicators inside the maintenance compartment of the S5735-S4T2X-IA150G1

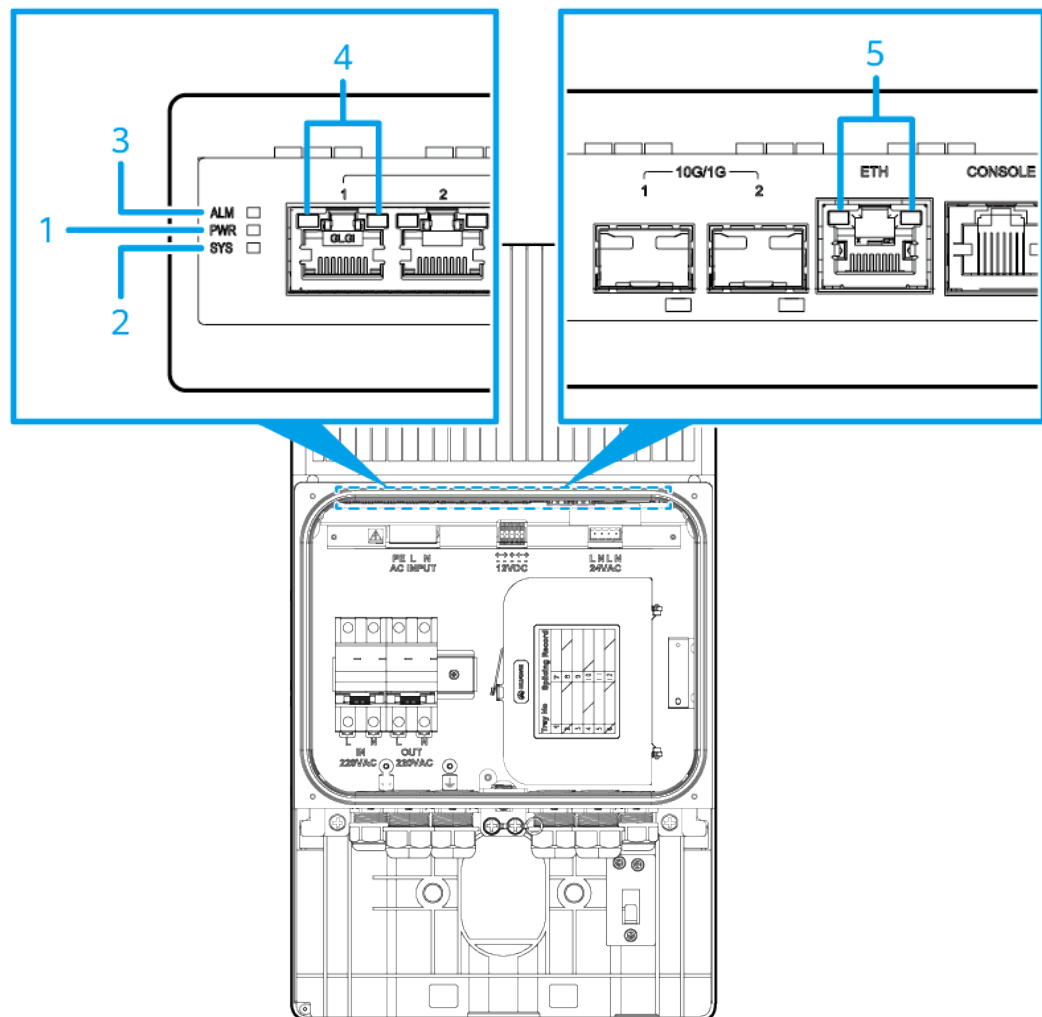


Table 4-1928 Description of indicators

No.	Indicator	Name	Color	Status	Description
1	PWR	Power indicator	-	Steady off	The switch is powered off.
			Green	Steady on	The switch is powered on and can communicate with the built-in power module properly.
			Yellow	Steady on	The switch is powered on but cannot communicate with the built-in power module properly.
2	SYS	System status indicator	-	Steady off	The system is not running.

No.	Indicator	Name	Color	Status	Description
			Green	Fast blinking	The system is starting.
			Green	Steady on	In the system startup preparation phase, the SYS indicator is steady green for no more than 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
			Red	Fast blinking	The indicator identifies the switch to maintain. The indicator can be turned on or off remotely to help field engineers find the switch to maintain.
3	ALM	Alarm indicator	-	Steady off	There is no AC input or power supply is normal.
			Red	Steady on	The power supply to the switch is abnormal.
4	-	Service port indicator (electrical ports)	-	Steady off	The port is not connected or has been shut down.
			Green and yellow	Steady on	The port is connected.
			Green and yellow	Blinking	The port is sending or receiving data.
		Service port indicator (optical ports)	-	Steady off	The port is not connected or has been shut down.
			Green	Steady on	The port is connected.
			Green	Blinking	The port is sending or receiving data.
5	-	ETH port indicator	-	Steady off	The ETH port is not connected.
			Green and yellow	Steady on	The ETH port is connected.

No.	Indicator	Name	Color	Status	Description
			Green and yellow	Blinking	The port is sending or receiving data.

Power Supply Configuration

The S5735-S4T2X-IA150G1 has a built-in power module and does not support pluggable power modules. The S5735-S4T2X-IA150G1 can be directly connected to an external 220 V AC power supply and provide power for external devices. [Table 4-1929](#) lists the power supply configurations of the S5735-S4T2X-IA150G1.

Table 4-1929 Power supply configurations

Power Supply Mode	Available Power
12 V DC	Five 12 V DC outputs provide a total of 72 W power. The maximum power of a single output is 72 W.
24 V AC	Two 24 V AC outputs provide a total of 72 W power. The maximum power of a single output is 72 W.

NOTE

The five 12 V DC outputs and two 24 V AC outputs provides a combined total power output of 144 W.

Heat Dissipation

The S5735-S4T2X-IA150G1 has no fans and uses natural heat dissipation.

Technical Specifications

[Table 4-1930](#) lists technical specifications of the S5735-S4T2X-IA150G1.

Table 4-1930 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.28 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode
Power supply surge protection	Surge current: <ul style="list-style-type: none">• AC input: 20 kA Surge: <ul style="list-style-type: none">• AC input: ±6 kV in differential mode; ±6 kV in common mode• 12 V DC output: ±2 kV in differential mode; ±4 kV in common mode• 24 V AC output: ±2 kV in differential mode; ±6 kV in common mode
Dimensions (H x W x D)	550 mm x 300 mm x 135 mm (21.65 in. x 11.81 in. x 5.31 in.)
Weight (including packaging)	12.2 kg (26.9 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	220 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	176 V AC to 264 V AC, 45 Hz to 66 Hz
Maximum power consumption (100% throughput)	29 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	28 W
Operating temperature	-40°C to +75°C (-40°F to 167°F) NOTE -25°C to +75°C (-13°F to +167°F): sun shield needed; 400 LFM air velocity (minimum); GPON optical modules not supported -25°C to +70°C (-13°F to +158°F): sun shield needed; 200 LFM air velocity (minimum); GPON optical modules supported -30°C to +60°C (-22°F to +140°F): sun shield needed; 40 LFM air velocity (minimum); GPON optical modules supported -35°C to +55°C (-31°F to +131°F): sun shield needed; no requirement on the air velocity; GPON optical modules supported -35°C to +45°C (-31°F to +113°F): 1120 W/m ² solar radiation (maximum); no requirement on the air velocity -40°C to -35°C (-40°F to -31°F): stable port performance can be achieved only when at least four Ethernet electrical ports go Up When the altitude is 1800–4000 m (5906-13123 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +85°C (-40°F to +185°F)
IP rating	IP55
Salt spray protection	Supported, allowing the switch to be installed in areas more than 500 meters away from the sea
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-4000 m (0-13123 ft.)
Product certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification

Item	Description
Part number	02312NTA

4.37.2 S5735-S8P2X-IA200G1

Version Mapping

Table 4-1931 lists the mapping between the S5735-S8P2X-IA200G1 chassis and software versions.

Table 4-1931 Version mapping

Series	Model	Software Version
S5735-S-I	S5735-S8P2X-IA200G1	V200R019C10 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-674 S5735-S8P2X-IA200G1 appearance

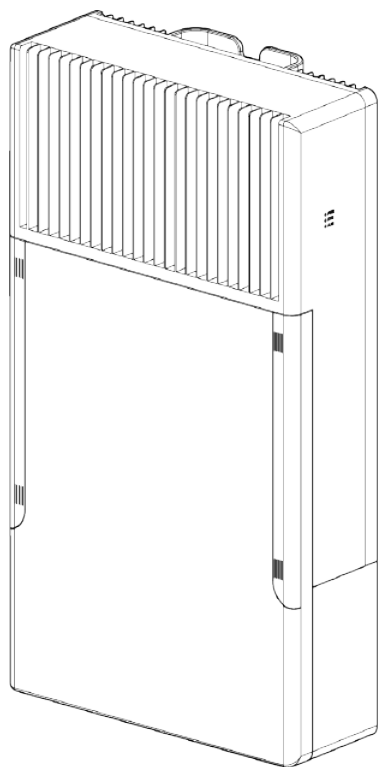
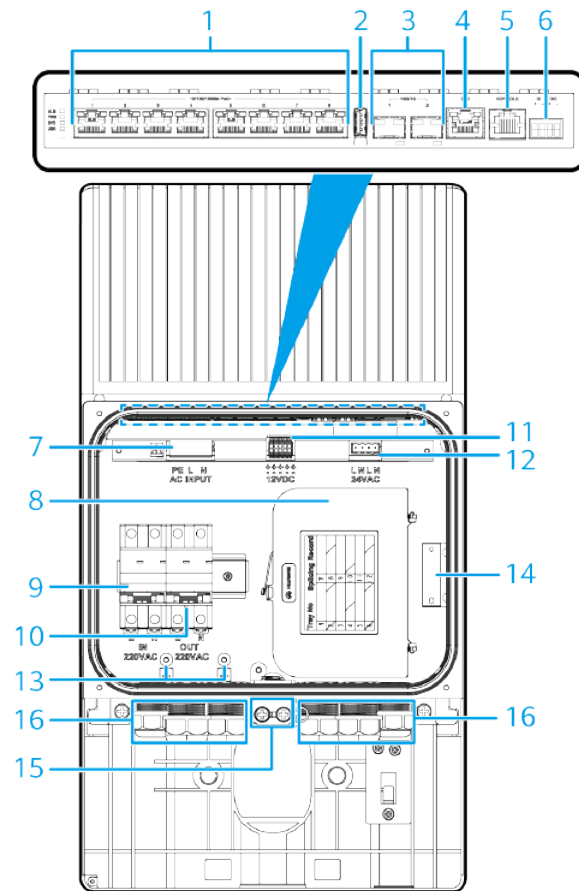


Figure 4-675 Interior of the S5735-S8P2X-IA200G1 maintenance compartment



1	Eight PoE+ 10/100/1000BASE-T ports	2	One USB port
3	Two 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> ● Industrial optical module ● GPON optical module ● Third-party GPON optical modules (Hisense LTE3415-SH+ and CIG G-97S) NOTE If one port uses a GPON optical module, the other port cannot be used at the same time.	4	One ETH management port

5	One console port	6	<p>Monitoring port</p> <ul style="list-style-type: none"> • DI: signal input line, which connects to a door status sensor. • DO: signal output line, which connects to a camera alarm signal cable. <p>NOTE</p> <p>The monitoring port can be used to detect the status of a connected external device, such as the opening and closing of the maintenance compartment door.</p> <p>The monitoring port is used with a conductive cable. The minimum cross-sectional area of the conductor connected to a conductive cable is 0.3 mm² or 22 AWG, and the maximum cross-sectional area of the conductor is 1.3 mm² or 16 AWG.</p> <p>For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the <i>Configuration Guide - Device Management Configuration</i>.</p>
7	220 V AC power input socket	8	<p>Fiber management tray (FMT)</p> <p>NOTE</p> <p>The FMT is optional.</p>

9	<p>220 V AC power input circuit breaker</p> <p>NOTICE</p> <p>This circuit breaker is optional.</p> <p>Connect an external power cable to the 220 V AC power input circuit breaker when it is in use.</p> <p>An external power cable needs to be prepared onsite. Ensure that the wires of the external cable are correctly connected to the L and N sockets of a plug.</p> <p>The circuit breaker supports a maximum of 32 A input current and provides two 220 V AC outputs.</p> <ul style="list-style-type: none"> • One output is connected to the AC power input socket of the switch to supply power to the switch. • The other output is connected to the 220 V AC power output circuit breaker of the switch to supply power to connected PDs (such as strobe lights and non-PoE PTZ dome cameras). 	10	<p>220 V AC power output circuit breaker</p> <p>NOTICE</p> <p>This circuit breaker is optional.</p> <p>The 220 V AC power output circuit breaker provides overcurrent protection only, and is only used for external power conversion. It supports a maximum of 10 A output current.</p> <p>The connected external devices need to provide certain surge protection capabilities. It is recommended that the surge protection capabilities for both differential and common modes be 20 kA.</p>
11	<p>12 V DC power output socket</p> <p>NOTE</p> <p>The switch provides five 12 V DC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p>	12	<p>24 V AC power output socket</p> <p>NOTE</p> <p>The switch provides two 24 V AC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p>
13	<p>PE cable ground terminal</p> <p>NOTE</p> <p>It is used to ground a PE power cable for 220 V AC input or output.</p>	14	<p>Door status sensor</p> <p>NOTE</p> <p>It reports an alarm when the maintenance compartment door of the switch is opened.</p>
15	<p>Ground screw</p> <p>NOTE</p> <p>It is used to ground the switch. The ground cable needs to be purchased separately.</p>	16	<p>Cable outlet</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1932](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1932 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1933](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1933 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1934](#).

Table 4-1934 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1935](#) describes the attributes of an ETH management port.

Table 4-1935 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 4-676 Indicators on the outside of the S5735-S8P2X-IA200G1

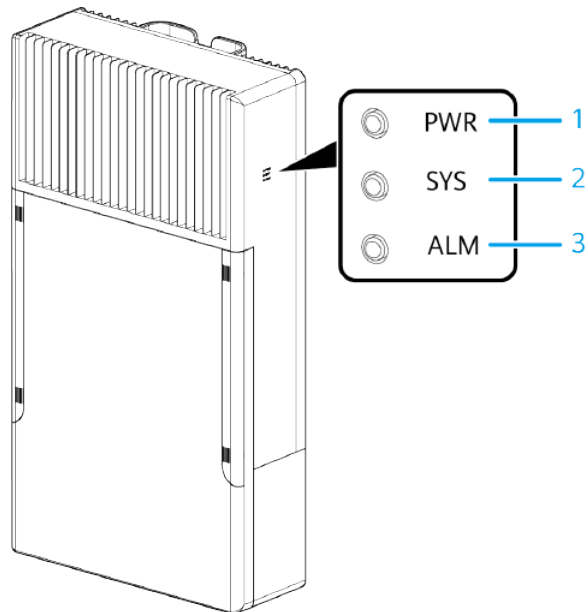


Figure 4-677 Indicators inside the maintenance compartment of the S5735-S8P2X-IA200G1

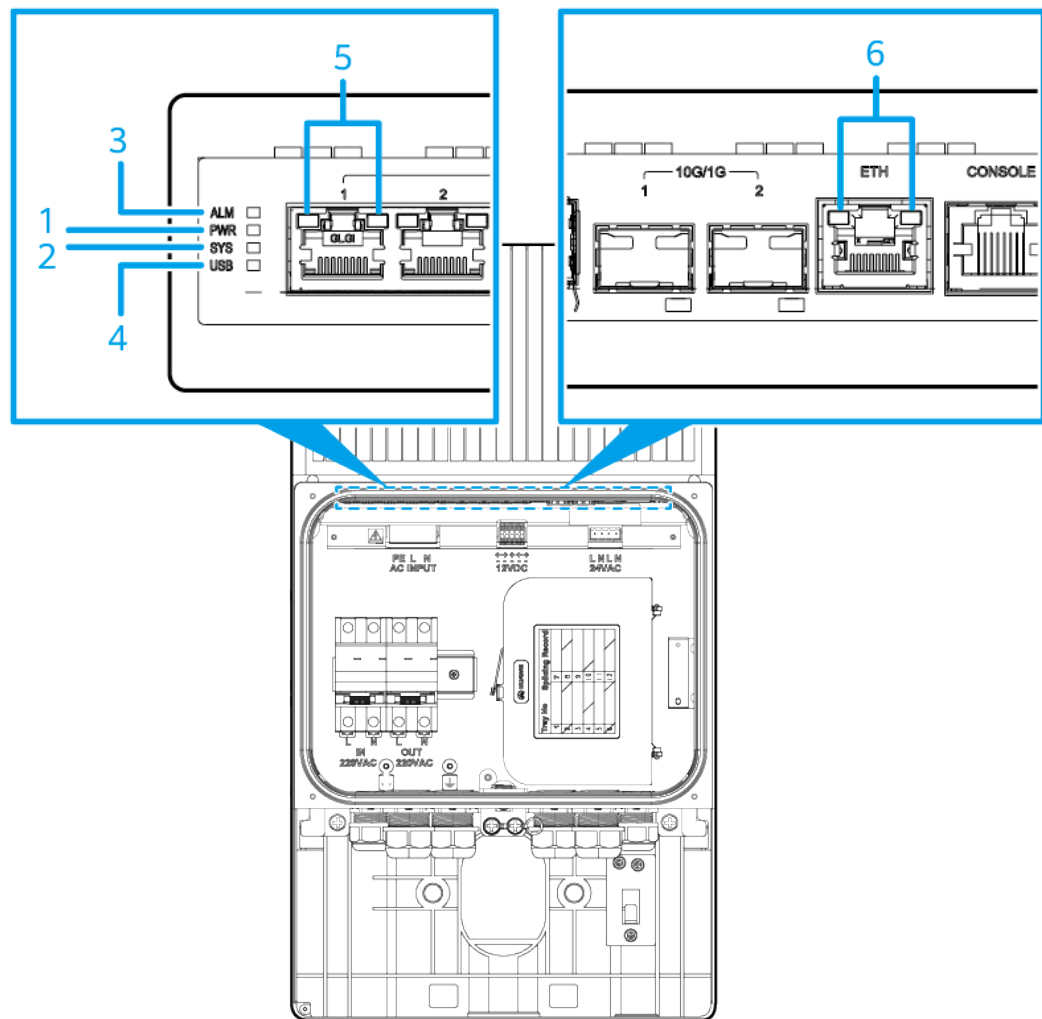


Table 4-1936 Description of indicators

No.	Indicator	Name	Color	Status	Description
1	PWR	Power indicator	-	Steady off	The switch is powered off.
			Green	Steady on	The switch is powered on and can communicate with the built-in power module properly.
			Yellow	Steady on	The switch is powered on but cannot communicate with the built-in power module properly.
2	SYS	System status indicator	-	Steady off	The system is not running.

No.	Indicator	Name	Color	Status	Description
			Green	Fast blinking	The system is starting.
			Green	Steady on	In the system startup preparation phase, the SYS indicator is steady green for no more than 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
			Red	Fast blinking	The indicator identifies the switch to maintain. The indicator can be turned on or off remotely to help field engineers find the switch to maintain.
3	ALM	Alarm indicator	-	Steady off	There is no AC input or power supply is normal.
			Red	Steady on	The power supply to the switch is abnormal.
4	USB	USB-based deployment indicator	-	Steady off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.

No.	Indicator	Name	Color	Status	Description
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.
5	-	Service port indicator	Green	Steady off	The port is not connected or has been shut down.
				Steady on	The port is connected.
				Blinking	The port is sending or receiving data.
			Yellow	Steady off	The port does not supply power to any PD.
				Steady on	The port is supplying power to the connected PD.
				Blinking	The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.
6	-	ETH port indicator	-	Steady off	The ETH port is not connected.
			Green and yellow	Steady on	The ETH port is connected.
			Green and yellow	Blinking	The port is sending or receiving data.

Power Supply Configuration

The S5735-S8P2X-IA200G1 has a built-in power module and does not support pluggable power modules. The S5735-S8P2X-IA200G1 can be directly connected to an external 220 V AC power supply and provide power for external devices. [Table 4-1937](#) lists the power supply configurations of the S5735-S8P2X-IA200G1.

Table 4-1937 Power supply configurations

Power Supply Mode	Available Power
PoE	160 W Maximum number of PoE ports (fully loaded): <ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 5
12 V DC	Five 12 V DC outputs provide a total of 72 W power. The maximum power of a single output is 72 W.
24 V AC	Two 24 V AC outputs provide a total of 72 W power. The maximum power of a single output is 72 W.

 **NOTE**

The total maximum output power of PoE power output, five 12 V DC outputs, and two 24 V AC outputs is 160 W.

In the following scenarios, a device can supply up to 150 W available power.

- PoE-only scenario: If a device that is supplying more than 150 W PoE power is restarted upon power-off or is reset, the device can only supply up to 150 W available power due to load fluctuation errors.
- Hybrid power supply scenario: When a device uses both PoE and 12 V/24 V power supplies, and the device is powered on with loads, is restarted upon power-off, or is reset, the device can only supply up to 150 W power due to load fluctuation errors.

Heat Dissipation

The S5735-S8P2X-IA200G1 has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1938 lists technical specifications of the S5735-S8P2X-IA200G1.

Table 4-1938 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.28 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode
Power supply surge protection	Surge current: <ul style="list-style-type: none"> AC input: 20 kA Surge: <ul style="list-style-type: none"> AC input: ±6 kV in differential mode; ±6 kV in common mode 12 V DC output: ±2 kV in differential mode; ±4 kV in common mode 24 V AC output: ±2 kV in differential mode; ±6 kV in common mode
Dimensions (H x W x D)	550 mm x 300 mm x 135 mm (21.65 in. x 11.81 in. x 5.31 in.)
Weight (including packaging)	12.2 kg (26.9 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	220 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	176 V AC to 264 V AC, 45 Hz to 66 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> With no output power: 34 W With output power: 209 W (device power consumption: 49 W; output power: 160 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	31 W

Item	Description
Operating temperature	<p>-40°C to +75°C (-40°F to 167°F)</p> <p>NOTE</p> <p>-25°C to +75°C (-13°F to +167°F): sun shield needed; 400 LFM air velocity (minimum); GPON optical modules not supported</p> <p>-25°C to +70°C (-13°F to +158°F): sun shield needed; 200 LFM air velocity (minimum); GPON optical modules supported</p> <p>-30°C to +60°C (-22°F to +140°F): sun shield needed; 40 LFM air velocity (minimum); GPON optical modules supported</p> <p>-35°C to +55°C (-31°F to +131°F): sun shield needed; no requirement on the air velocity; GPON optical modules supported</p> <p>-35°C to +45°C (-31°F to +113°F): 1120 W/m² solar radiation (maximum); no requirement on the air velocity</p> <p>-40°C to -35°C (-40°F to -31°F): stable port performance can be achieved only when at least four Ethernet electrical ports go Up</p> <p>When the altitude is 1800–4000 m (5906–13123 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +85°C (-40°F to +185°F)
IP rating	IP55
Salt spray protection	Supported, allowing the switch to be installed in areas more than 500 meters away from the sea
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0–4000 m (0–13123 ft.)
Product certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02312NTA-001

4.37.3 S5735-S8P2X-IA200H1

Overview

Table 4-1939 Basic information about the S5735-S8P2X-IA200H1

Item	Details
Description	Function Module, S5735-S8P2X-IA200H1, Single-Phase Or Dual-Live Wire Or PV Input, PoE 53Vdc/3.8A, 12Vdc/6A, 24Vac/4A, Natural Heat Dissipation
Part Number	02313CMQ
Model	S5735-S8P2X-IA200H1
First supported version	V200R020C10
Remarks	<p>External power supply capability:</p> <p>When only AC input is used:</p> <p>Maximum output power: 300 W (AC input range: 100 V AC to 120 V AC)</p> <p>Maximum output power: 450 W (AC input range: 200 V AC to 240 V AC)</p> <p>When only PV input is used:</p> <p>Maximum output power: 500 W (DC input range: 36 V DC to 58 V DC)</p> <p>Maximum output power: 1400 W (DC input range: 58 V DC to 72 V DC)</p> <p>Maximum output power: 1000 W (DC input range: 72 V DC to 120 V DC)</p> <p>When PV and AC power inputs are included:</p> <p>Maximum output power: 1400 W</p> <p>When lithium batteries are used, the lithium battery charging capability is the maximum output power minus the power consumption (including 12 V DC, 24 V AC, PoE, and device power consumption).</p>

Components

Figure 4-678 S5735-S8P2X-IA200H1 appearance

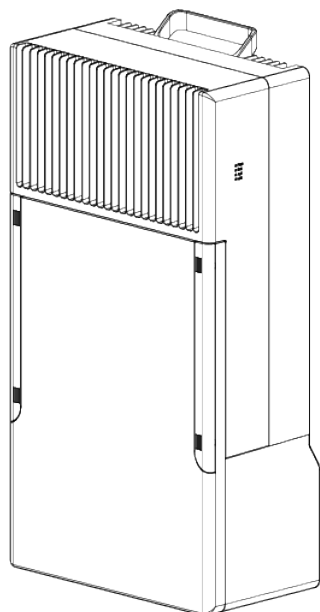
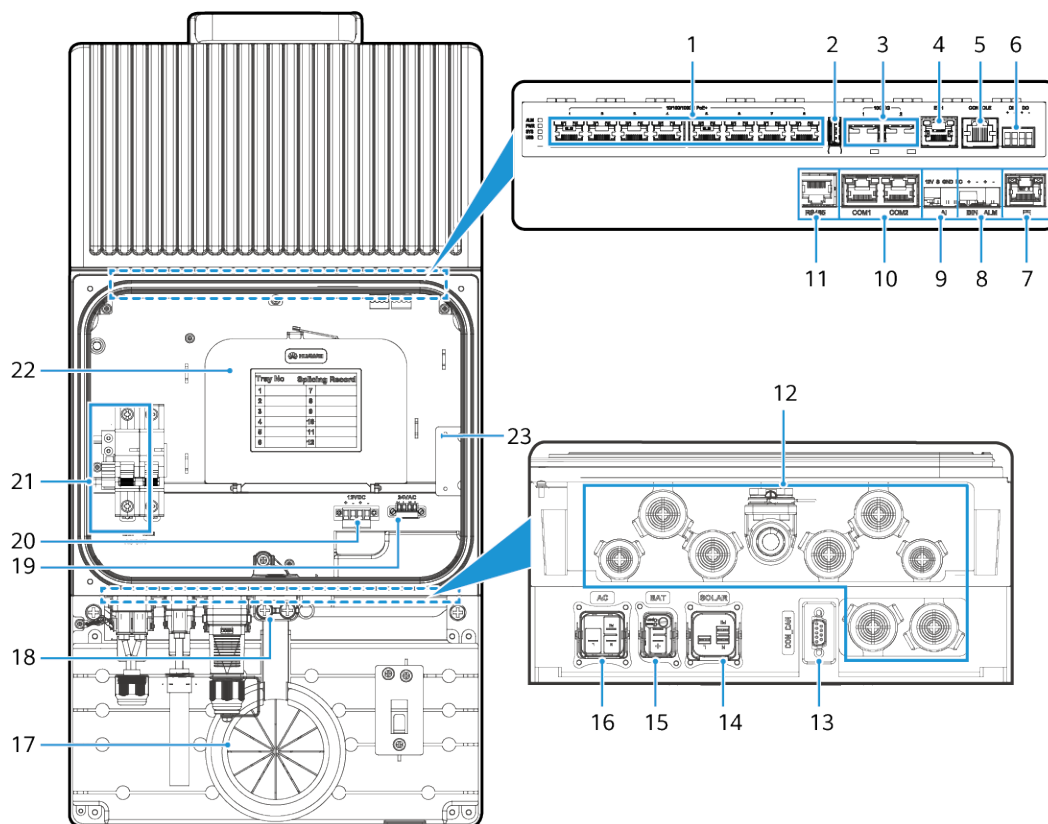


Figure 4-679 Interior of the S5735-S8P2X-IA200H1 maintenance compartment



1	Eight 10/100/1000BASE-T PoE+ ports	2	One USB port
3	Two 10GE SFP+ ports	4	One ETH management port
5	One console port	6	<p>DI/DO monitoring port</p> <ul style="list-style-type: none"> • DI: signal input line, which connects to a door status sensor. • DO: signal output line, which connects to a camera alarm signal cable. <p>NOTE</p> <p>The monitoring port can be used to detect the status of a connected external device, such as the opening and closing of the maintenance compartment door.</p> <p>The monitoring port is used with a conductive cable. The minimum cross-sectional area of the conductor connected to a conductive cable is 0.3 mm² or 22 AWG, and the maximum cross-sectional area of the conductor is 1.3 mm² or 16 AWG.</p> <p>For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the <i>Configuration Guide - Device Management Configuration</i>.</p>
7	<p>FE communication port</p> <p>NOTE</p> <p>The FE communication port is used for power commissioning.</p> <ul style="list-style-type: none"> • 10 M/100 M autonegotiation, RJ45 port • Communication protocol: NetEco BIN 	8	Monitoring port (reserved)
9	Temperature sensor port (reserved)	10	COM1 and COM2 ports (reserved)
11	<p>RS485 port</p> <p>NOTE</p> <p>The RS485 port is used to communicate with a PC for commissioning the power locally.</p> <ul style="list-style-type: none"> • Baud rate: 9600 bit/s by default • Communication protocol: Modbus 	12	Cable outlet

1 3	<p>COM_CAN port</p> <p>NOTE</p> <p>This port can be connected to lithium batteries to monitor and manage the batteries.</p> <ul style="list-style-type: none"> • Baud rate: 125 kbit/s • Communication protocol: CAN 	1 4	<p>Photovoltaics (PV) input port</p> <p>NOTE</p> <p>This port can be connected to an external PV system to supply power to the switch.</p>
1 5	<p>BAT port</p> <p>NOTE</p> <p>This port can be connected to an external lithium battery to supply power to the switch or charge the lithium battery.</p>	1 6	<p>220 V AC power input socket</p>
1 7	<p>Cable outlet</p>	1 8	<p>Ground screw</p> <p>NOTE</p> <p>It is used to ground the switch.</p>
1 9	<p>24 V AC power output socket</p> <p>NOTE</p> <p>The switch provides two 24 V AC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p>	2 0	<p>12 V DC power output socket</p> <p>NOTE</p> <p>The switch provides two 12 V DC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p>
2 1	<p>220 V AC power output circuit breaker</p> <p>NOTICE</p> <p>One 220 V AC power output is provided.</p> <p>The 220 V AC power output circuit breaker provides only overcurrent protection.</p> <p>The connected external devices need to provide certain surge protection capabilities. It is recommended that the surge protection capabilities for both differential and common modes be 20 kA.</p>	2 2	<p>Fiber management tray (FMT)</p>
2 3	<p>Door status sensor</p> <p>NOTE</p> <p>It reports an alarm when the maintenance compartment door of the switch is opened.</p>	-	-

Indicators Description

Figure 4-680 Indicators on the outside of the S5735-S8P2X-IA200H1

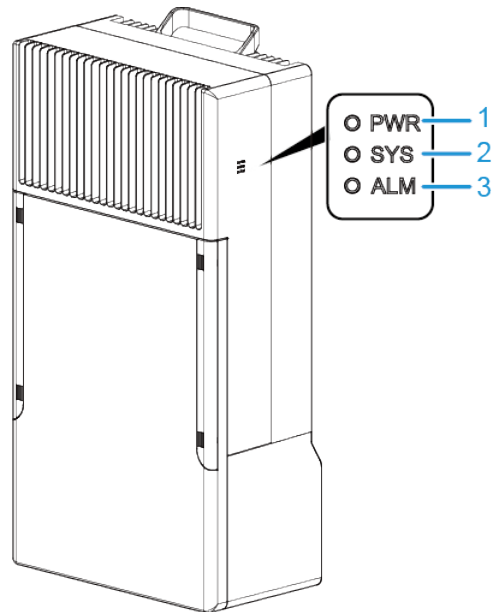


Figure 4-681 Indicators inside the maintenance compartment of the S5735-S8P2X-IA200H1

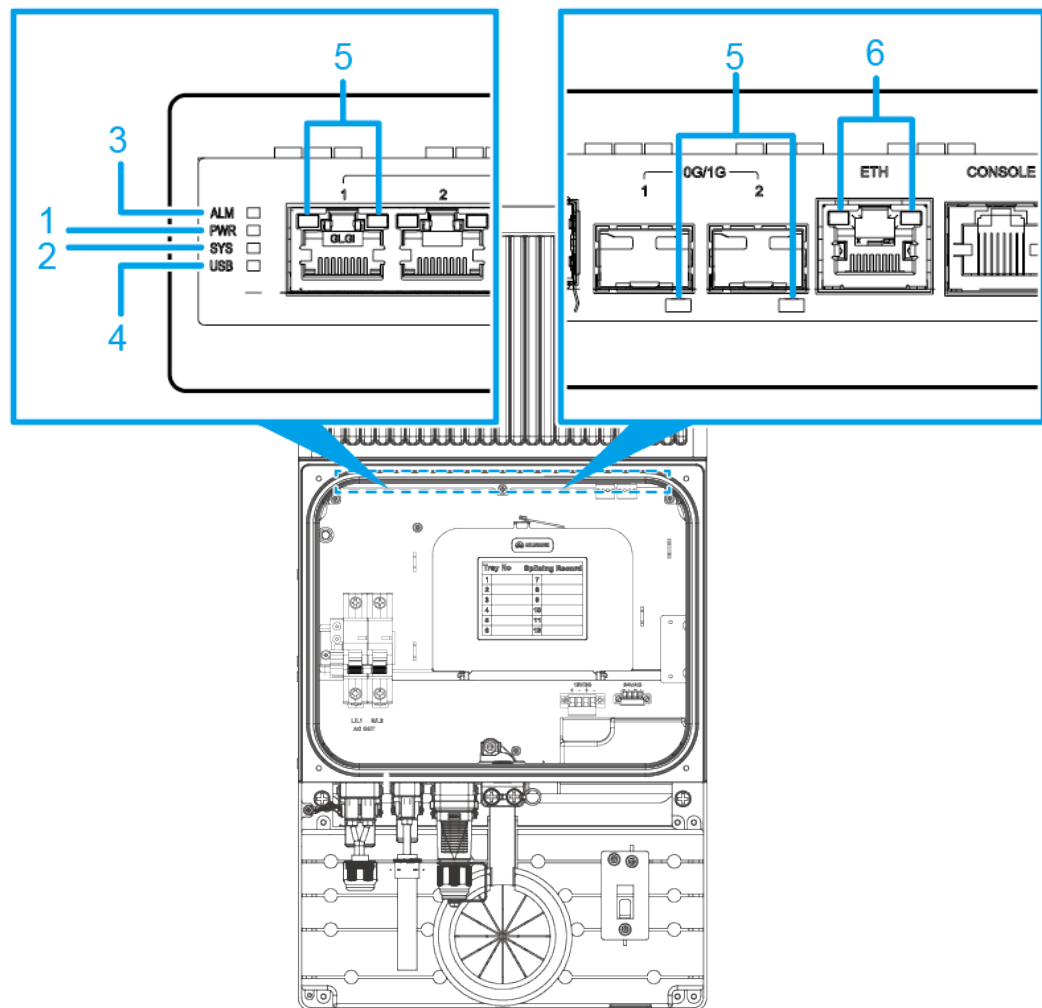


Table 4-1940 Description of indicators

No.	Indicator	Name	Color	Status	Description
1	PWR	Power indicator	-	Steady off	The switch is powered off.
			Green	Steady on	The switch is powered on and can communicate with the built-in power module properly.
			Yellow	Steady on	The switch is powered on but cannot communicate with the built-in power module properly.
2	SYS	System status indicator	-	Steady off	The system is not running.

No.	Indicator	Name	Color	Status	Description
			Green	Fast blinking	The system is starting.
			Green	Steady on	In the system startup preparation phase, the SYS indicator is steady green for no more than 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
			Red	Fast blinking	The indicator identifies the switch to maintain. The indicator can be turned on or off remotely to help field engineers find the switch to maintain.
3	ALM	Alarm indicator	-	Steady off	There is no protection alarm or fault alarm.
			Red	Steady on	A fault alarm is generated due to device faults and cannot be cleared.
			Red	Slow blinking	A protection alarm is generated due to external faults and can be cleared.
4	USB	USB-based deployment indicator	-	Steady off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.

No.	Indicator	Name	Color	Status	Description	
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.	
5	-	Service port indicator	Green	Steady off	The port is not connected or has been shut down.	
				Steady on	The port is connected.	
				Blinking	The port is sending or receiving data.	
			Yellow	Steady off	The port does not supply power to any PD.	
				Steady on	The port is supplying power to the connected PD.	
				Blinking	The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.	
6	-	ETH port indicator	-	Steady off	The ETH port is not connected.	
				Green and yellow	Steady on	The ETH port is connected.
				Green and yellow	Blinking	The port is sending or receiving data.

Ports

Table 4-1941 Ports on the S5735-S8P2X-IA200H1

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. If one port uses a GPON optical module, the other port cannot be used at the same time.	<ul style="list-style-type: none"> • Industrial optical modules • GPON optical modules • Third-party GPON optical modules (Hisense LTE3415-SH+ and CIG G-97S)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Power Supply System

The S5735-S8P2X-IA200H1 has a built-in AC power module and can be directly connected to the AC mains or an external PV system. External lithium batteries can also be connected to the switch for power backup. The switch supports the following power supply combinations:

- Solar hybrid scenario: PV input, AC mains input, and lithium batteries for backup
- Grid hybrid scenario: AC mains input and lithium batteries for backup
- Mains scenario: AC mains input
- Solar-Only scenario: PV input and lithium batteries for backup

Table 4-1942 Configurations in the solar hybrid scenario

Item	Description
Function module	S5735-S8P2X-IA200H1

Item	Description
Lithium battery	Maximum configuration: two DBU20B-N12A3s or two DBU50B-N12A1s
Pole	Solar pole
PV module	Two PV modules

Table 4-1943 Configurations in the grid hybrid scenario

Item	Description
Function module	S5735-S8P2X-IA200H1
Lithium battery	Maximum configuration: two DBU20B-N12A3s or two DBU50B-N12A1s
Pole	Mains pole

Table 4-1944 Configurations in the mains scenario

Item	Description
Function module	S5735-S8P2X-IA200H1
Pole	Mains pole

Table 4-1945 Configuration in the solar-only scenario

Item	Description
Function module	S5735-S8P2X-IA200H1
Lithium battery	Maximum configuration: two ESM-48100Bs or two ESM-48100A8s
Pole	Solar pole
PV module	Two PV modules or Four PV modules

 **NOTE**

For details about poles, lithium batteries, and PV modules, see [PowerCube 500 User Manual \(S5735-S8P2X-IA200H1\)](#).

The S5735-S8P2X-IA200H1 can also supply power to external devices. For details, see [Table 4-1946](#).

Table 4-1946 Supplying power to external devices

Power Supply Mode	Available Power
PoE	200 W Maximum number of PoE ports (fully loaded): <ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 6
12 V DC	Two 12 V DC outputs provide a total of 72 W power. The maximum power of a single output is 72 W.
24 V AC	Two 24 V AC outputs provide a total of 100 W power. The maximum power of a single output is 100 W.

 **NOTE**

The total maximum output power of PoE power output, two 12 V DC outputs, and two 24 V AC outputs is 200 W.

In the following scenarios, a device can supply up to 190 W available power.

- PoE-only scenario: If a device that is supplying more than 190 W PoE power is restarted upon power-off or is reset, the device can only supply up to 190 W available power due to load fluctuation errors.
- Hybrid power supply scenario: When a device uses both PoE and 12 V/24 V power supplies, and the device is powered on with loads, is restarted upon power-off, or is reset, the device can only supply up to 190 W power due to load fluctuation errors.

Heat Dissipation System

The S5735-S8P2X-IA200H1 has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-1947 Technical specifications of the S5735-S8P2X-IA200H1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Including the protruding portions: 582 mm x 300 mm x 165.5 mm (22.91 in. x 11.81 in. x 6.52 in.) Excluding the protruding portions: 570 mm x 300 mm x 150 mm (22.44 in. x 11.81 in. x 5.91 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	270 mm x 450 mm x 670 mm (10.63 in. x 17.72 in. x 26.38 in.)
Weight without packaging [kg(lb)]	14.5 kg (31.97 lb)
Weight with packaging [kg(lb)]	17.6 kg (38.8 lb)

Item	Specification
Typical power consumption [W]	38 W
Typical heat dissipation [BTU/hour]	129.66 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> With no output power: 45 W With output power: 269 W (device power consumption: 69 W; output power: 200 W)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> With no output power: 153.55 With output power: 917.86
Static power consumption [W]	37 W
MTBF [years]	41.85 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans)
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans)
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Redundant power supply	The S5735-S8P2X-IA200H1 has a built-in AC power module and can be directly connected to the AC mains or an external PV system. External lithium batteries can also be connected to the switch for power backup.
Long-term operating temperature [°C(°F)]	<p>-40°C to +55°C (-40°F to 131°F)</p> <p>NOTE</p> <p>-35°C to +55°C (-31°F to +131°F): sunshade needed; no requirement on the air velocity; GPON optical modules supported</p> <p>-35°C to +45°C (-31°F to +113°F): 1120 W/m² solar radiation (maximum); no requirement on the air velocity</p> <p>-40°C to -35°C (-40°F to -31°F): Stable port performance can be achieved only when at least four Ethernet electrical ports go Up.</p>

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 2000-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 200 m (656 ft.).
Storage temperature [°C(°F)]	-40°C to +85°C (-40°F to +185°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	-150 m to 5000 m (-492 to 16404 ft.)
Storage altitude [m(ft.)]	-150 m to 5000 m (-492 to 16404 ft.)
Power supply mode	<ul style="list-style-type: none"> AC built-in Solar power supply Lithium battery power supply
Rated input voltage [V]	AC input: 100 V AC to 240 V AC, 50/60 Hz PV input: 72 V DC Battery input: 53.5 V DC
Input voltage range [V]	AC input: 85 V AC to 290 V AC, 45 Hz to 65 Hz PV input: 36 V DC to 120 V DC
Maximum input current [A]	AC input: 4.5 A PV input: 28 A
Memory	1 GB
Flash memory	512 MB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	±1.5 kV in differential mode, ±6 kV in common mode

Item	Specification
Power supply surge protection [kV]	Surge current: <ul style="list-style-type: none"> AC input: 20 kA PV input: ± 3 kA in differential mode; ± 5 kA in common mode Battery input: ± 3 kA in differential mode; ± 5 kA in common mode Surge: <ul style="list-style-type: none"> AC input: ± 6 kV in differential mode; ± 6 kV in common mode PV input: ± 2 kV in differential mode; ± 4 kV in common mode Battery input: ± 2 kV in differential mode; ± 4 kV in common mode 12 V DC output: ± 2 kV in differential mode; ± 4 kV in common mode 24 V AC output: ± 2 kV in differential mode; ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP55
Types of fans	None
Heat dissipation mode	Natural heat dissipation without fans
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

 **NOTE**

The protection level of the device is IP55 and can be installed in a class C environment (GR-487).

4.37.4 S5735-S24T4X-I

Version Mapping

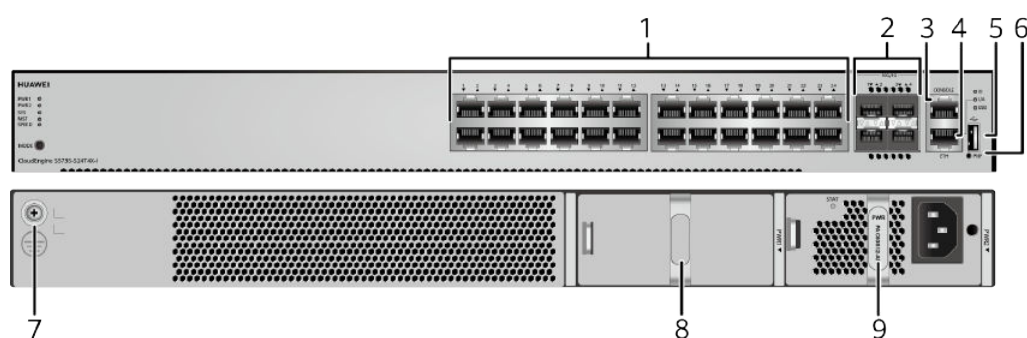
Table 4-1948 lists the mapping between the S5735-S24T4X-I chassis and software versions.

Table 4-1948 Version mapping

Series	Model	Software Version
S5735-S-I	S5735-S24T4X-I	Supported in V200R019C10SPC500 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-682 S5735-S24T4X-I appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: • Industrial optical module
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
9	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1949](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1949 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1950](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1950 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1951](#).

Table 4-1951 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1952](#) describes the attributes of an ETH management port.

Table 4-1952 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

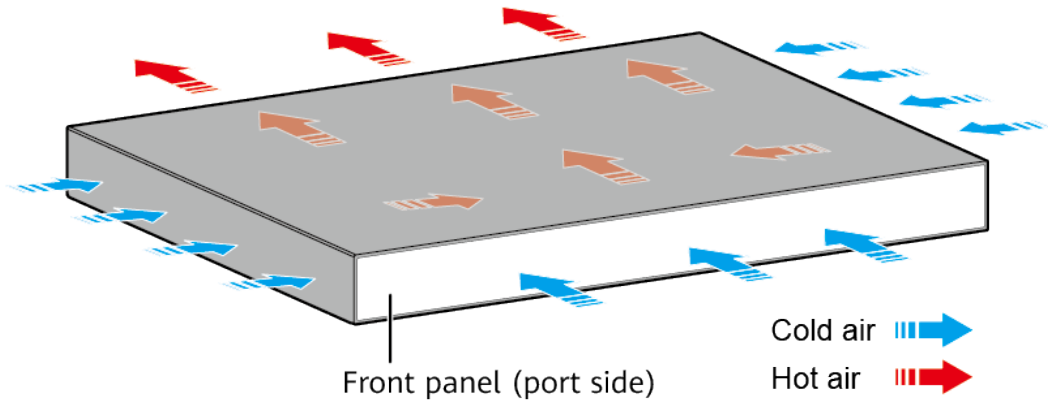
The S5735-S24T4X-I has similar indicators to those on the S5735-S24P4X except that the S5735-S24T4X-I does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-S24T4X-I can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5735-S24T4X-I has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1953 lists technical specifications of the S5735-S24T4X-I.

Table 4-1953 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	62.88 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)

Item	Description
Weight (with packaging)	7.02 kg (15.48 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R020C00 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DCDC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 264 V AC, 47 Hz to 63 HzHigh-Voltage DC input: 190 V DC to 290 V DCDC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	55.2 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">Tested according to ATIS standardEEE enabledNo PoE power consumption	36.8 W
Operating temperature	-40°C to +65°C (-40°F to +149°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-40°C to +70°C (-40°F to 158°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 65°C (149°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 65°C (149°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 65°C (149°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +75°C (-40°F to +167°F)
Noise under normal temperature (27°C, sound power)	< 49.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010960

4.38 S5735S-S

4.38.1 S5735S-S24T4S-A

Version Mapping

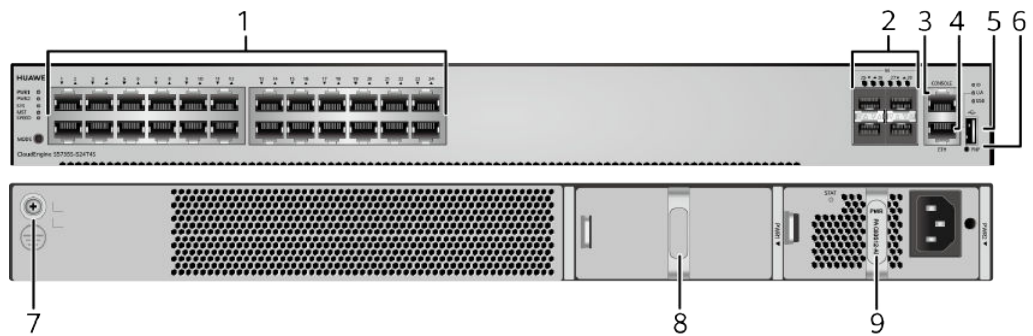
Table 4-1954 lists the mapping between the S5735S-S24T4S-A chassis and software versions.

Table 4-1954 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S24T4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-683 S5735S-S24T4S-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
9	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1955](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1955 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it

can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1956](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1956 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1957](#).

Table 4-1957 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1958](#) describes the attributes of an ETH management port.

Table 4-1958 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

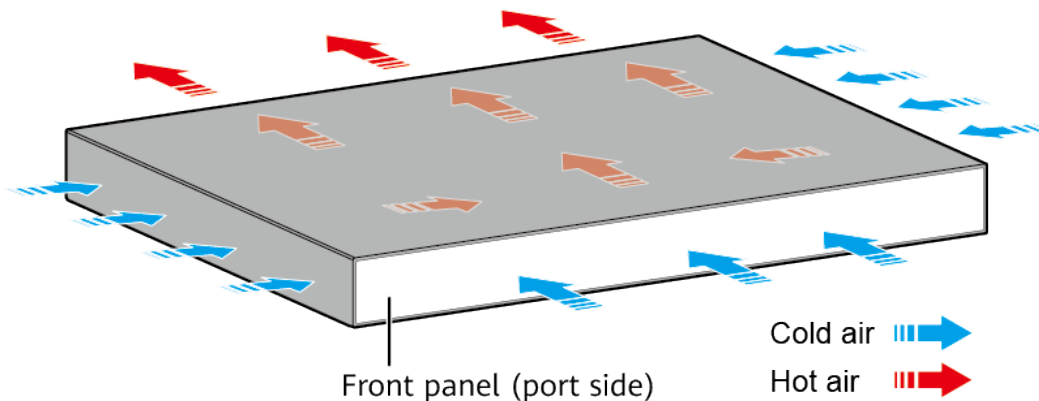
The S5735S-S24T4S-A has similar indicators to those on the S5735-S24P4X except that the S5735S-S24T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5735S-S24T4S-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1959](#) lists technical specifications of the S5735S-S24T4S-A.

Table 4-1959 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	69.42 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)

Item	Description
Weight (with packaging)	7.89 kg (17.4 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	44 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	29 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010939

4.38.2 S5735S-S32ST4X-A

Version Mapping

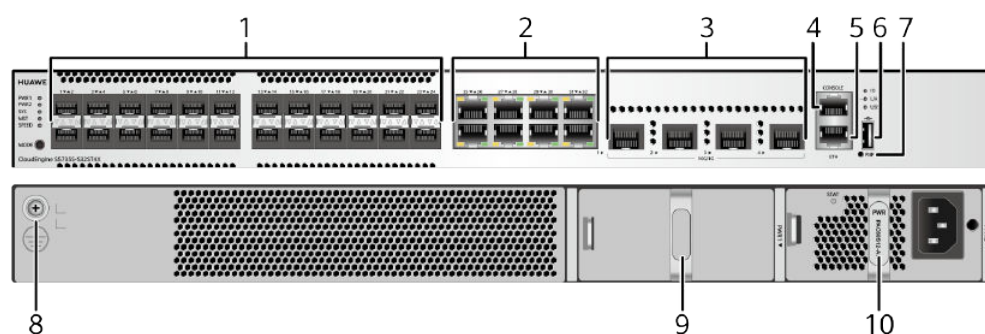
[Table 4-1960](#) lists the mapping between the S5735S-S32ST4X-A chassis and software versions.

Table 4-1960 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S32ST4X-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-684 S5735S-S32ST4X-A appearance



1	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module (maximum transmission distance ≤ 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight 10/100/1000BASE-T ports</p>
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	10	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 4-1961](#) describes the attributes of a 100/1000BASE-X port.

Table 4-1961 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1962](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1962 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1963](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1963 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1964](#).

Table 4-1964 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1965](#) describes the attributes of an ETH management port.

Table 4-1965 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

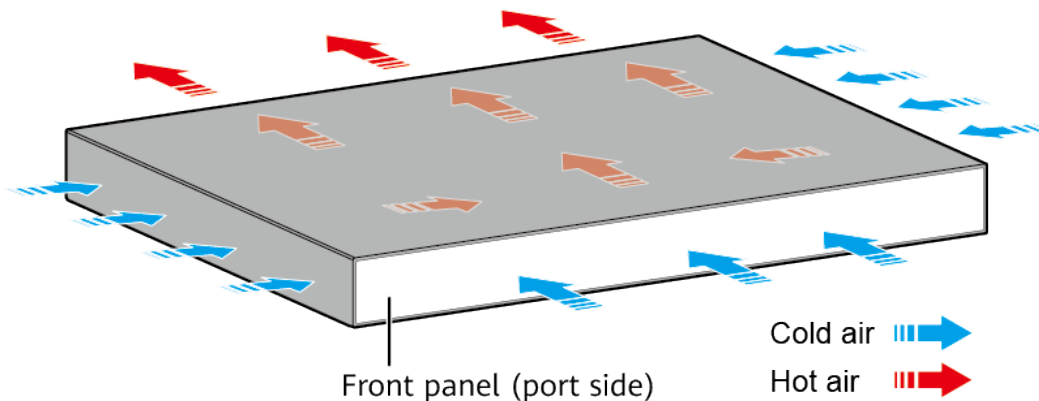
The S5735S-S32ST4X-A has similar indicators to those on the S5735-S24P4X except that the S5735S-S32ST4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5735S-S32ST4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1966 lists technical specifications of the S5735S-S32ST4X-A.

Table 4-1966 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	68.59 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)

Item	Description
Weight (with packaging)	8.15 kg (17.97 lb)
Stack ports	Any 10/100/1000BASE-T ports, 100/1000BASE-X ports, or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	66 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	47 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010932

4.38.3 S5735S-S48T4S-A

Version Mapping

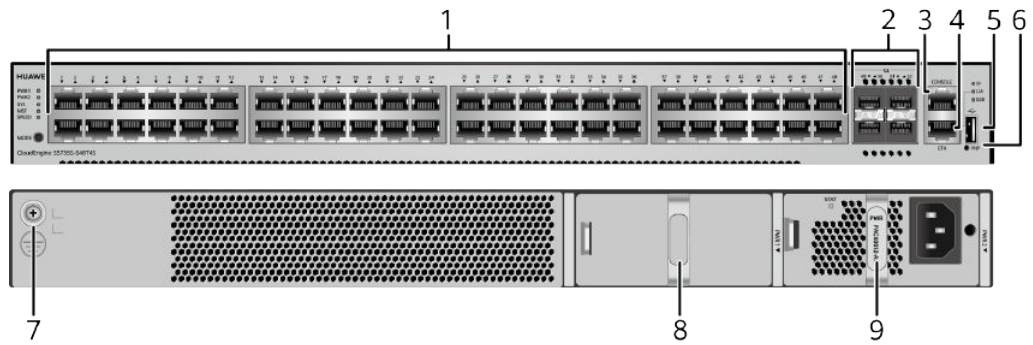
[Table 4-1967](#) lists the mapping between the S5735S-S48T4S-A chassis and software versions.

Table 4-1967 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S48T4S-A	V200R019C00 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-685 S5735S-S48T4S-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module (applicable in V200R021C00 and later versions) • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
9	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1968](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1968 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a FE optical module, it can transmit and receive data at 100 Mbit/s. When a 1000BASE-X port uses a GE copper module, it

can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 4-1969](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 4-1969 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1970](#).

Table 4-1970 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1971](#) describes the attributes of an ETH management port.

Table 4-1971 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

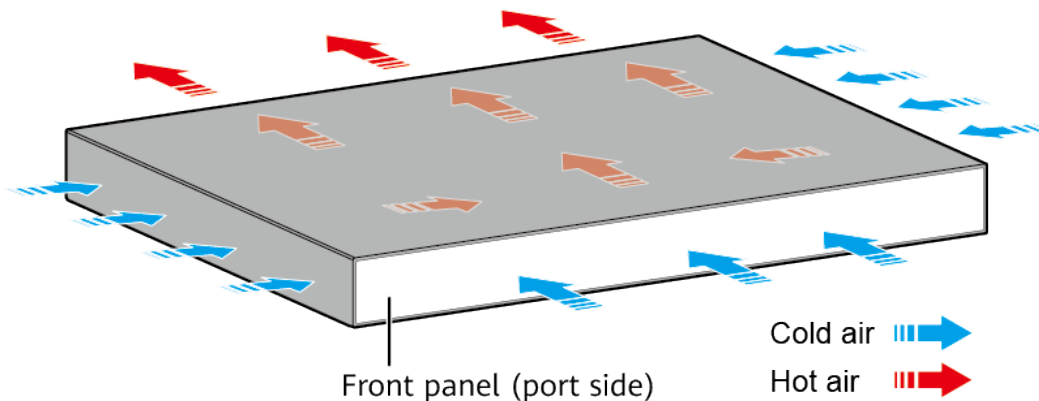
The S5735S-S48T4S-A has similar indicators to those on the S5735-S24P4X except that the S5735S-S48T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5735S-S48T4S-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1972 lists technical specifications of the S5735S-S48T4S-A.

Table 4-1972 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	74.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)

Item	Description
Weight (with packaging)	8.37 kg (18.45 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	58 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	41 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010942

4.38.4 S5735S-S24T4X-A

Version Mapping

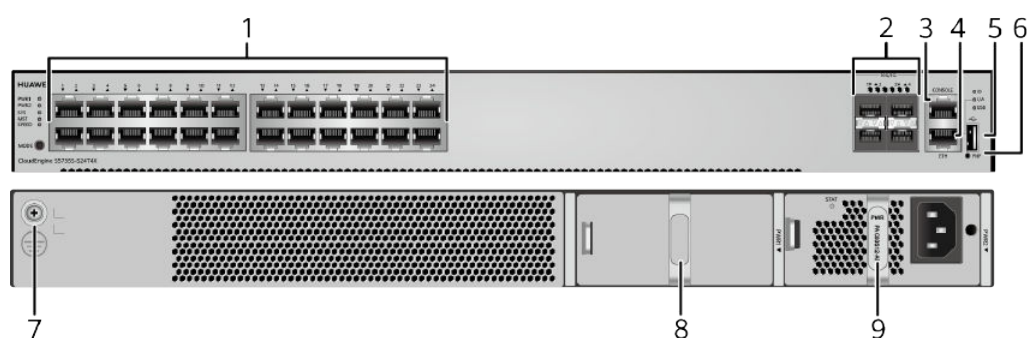
[Table 4-1973](#) lists the mapping between the S5735S-S24T4X-A chassis and software versions.

Table 4-1973 Version mapping

Series	Model	Software Version
S5735-S	S5735S-S24T4X-A	Supported in V200R019C10SPC500 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-686 S5735S-S24T4X-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
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3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1974](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1974 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Attribute	Description
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1975](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1975 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1976](#).

Table 4-1976 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1977](#) describes the attributes of an ETH management port.

Table 4-1977 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-S24T4X-A has similar indicators to those on the S5735-S24P4X except that the S5735S-S24T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

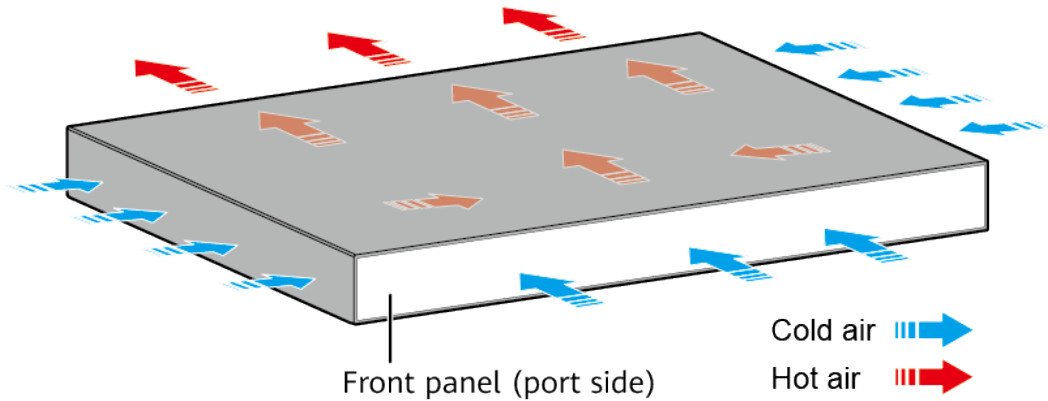
Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in

the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5735S-S24T4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-1978 lists technical specifications of the S5735S-S24T4X-A.

Table 4-1978 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	69.42 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.89 kg (17.4 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	46 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	31 W

Item	Description
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010967

4.38.5 S5735S-S24P4X-A

Version Mapping

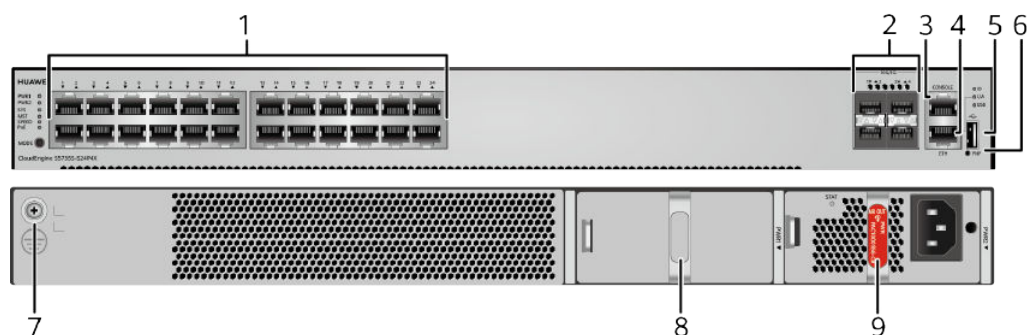
Table 4-1979 lists the mapping between the S5735S-S24P4X-A chassis and software versions.

Table 4-1979 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S24P4X-A	Supported in V200R019C10SPC500 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-687 S5735S-S24P4X-A appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions)
9	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1980](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1980 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1981](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1981 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1982](#).

Table 4-1982 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1983](#) describes the attributes of an ETH management port.

Table 4-1983 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-S24P4X-A has the same types of indicators as the S5735-S24P4X. For details, see [Indicator Description](#).

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1984 Power supply configurations

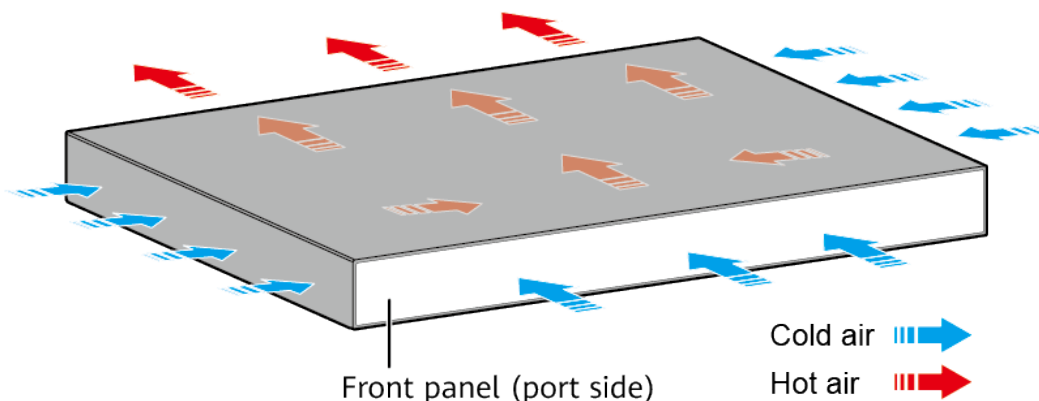
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	874 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W AC (110 V)	–	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5735S-S24P4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1985](#) lists technical specifications of the S5735S-S24P4X-A.

Table 4-1985 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	59.88 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.49 kg (18.72 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Not providing the PoE function: 65 W ● 100% PoE loads: 847 W (PoE: 720 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	51 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010969

4.38.6 S5735S-S48T4X-A

Version Mapping

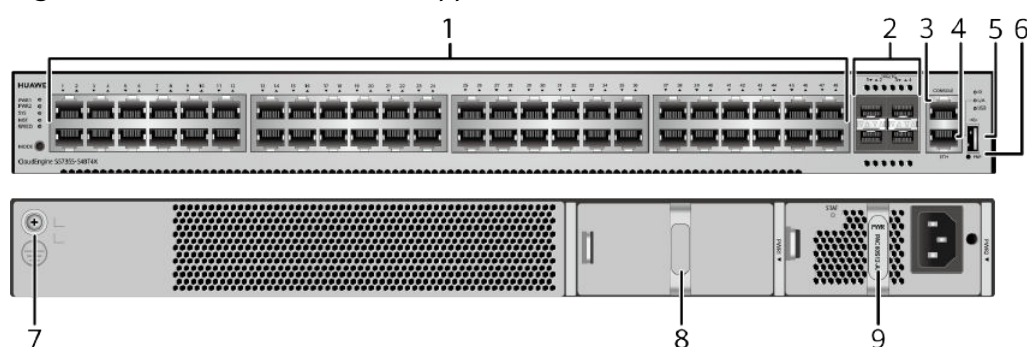
[Table 4-1986](#) lists the mapping between the S5735S-S48T4X-A chassis and software versions.

Table 4-1986 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S48T4X-A	Supported in V200R019C10SPC500 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-688 S5735S-S48T4X-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
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3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions)
9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 5.11 PAC60S12-AR (60 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1987](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1987 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Attribute	Description
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1988](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1988 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1989](#).

Table 4-1989 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1990](#) describes the attributes of an ETH management port.

Table 4-1990 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-S48T4X-A has similar indicators to those on the S5735-S24P4X except that the S5735S-S48T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

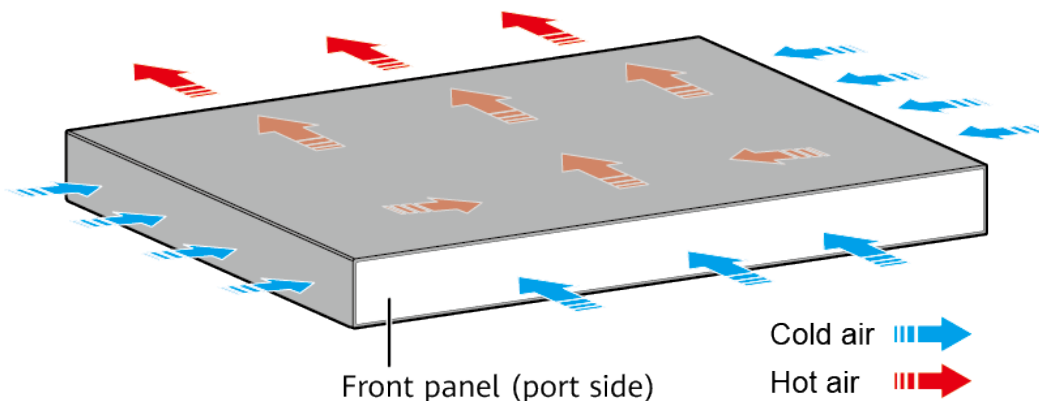
Power Supply Configuration

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in

the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation

The S5735S-S48T4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1991](#) lists technical specifications of the S5735S-S48T4X-A.

Table 4-1991 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	74.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.37 kg (18.45 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	59 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	40 W

Item	Description
Operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010968

4.38.7 S5735S-S48P4X-A

Version Mapping

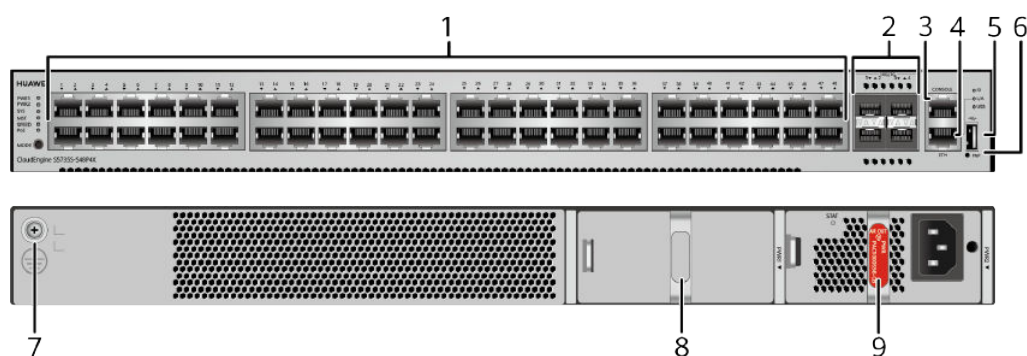
Table 4-1992 lists the mapping between the S5735S-S48P4X-A chassis and software versions.

Table 4-1992 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S48P4X-A	Supported in V200R019C10SPC500 and later versions NOTE V200R021C01 is not supported.

Appearance and Structure

Figure 4-689 S5735S-S48P4X-A appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions)
9	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) (applicable in V200R019C10 and later versions) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 4-1993](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 4-1993 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 4-1994](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 4-1994 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 4-1995](#).

Table 4-1995 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 4-1996](#) describes the attributes of an ETH management port.

Table 4-1996 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-S48P4X-A has the same types of indicators as the S5735-S24P4X. For details, see [Indicator Description](#).

Power Supply Configuration

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-1997 Power supply configurations

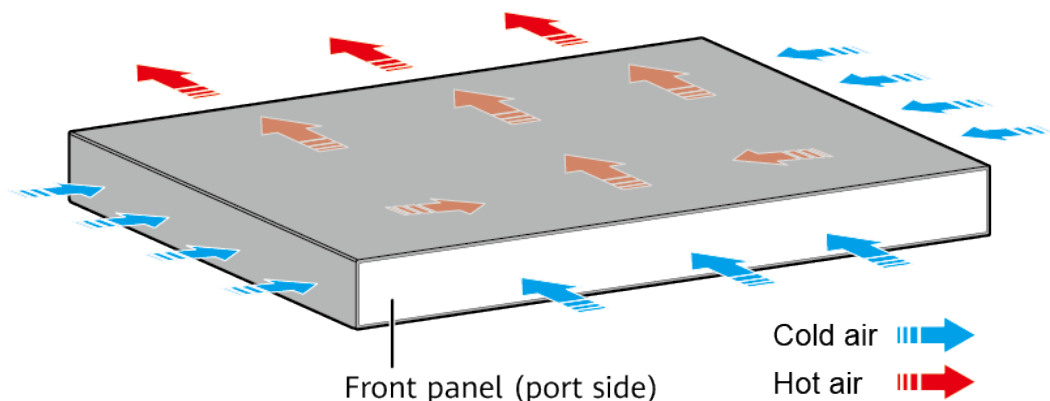
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	-	874 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W AC (110 V) 1000 W DC	-	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V) 1000 W DC	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5735S-S48P4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 4-1998](#) lists technical specifications of the S5735S-S48P4X-A.

Table 4-1998 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	54.88 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.74 kg (19.27 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Not providing the PoE function: 77 W ● 100% PoE loads: 1661 W (PoE: 1440 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	59 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010970

4.39 S5735S-H

4.39.1 S5735S-H24S4XC-A

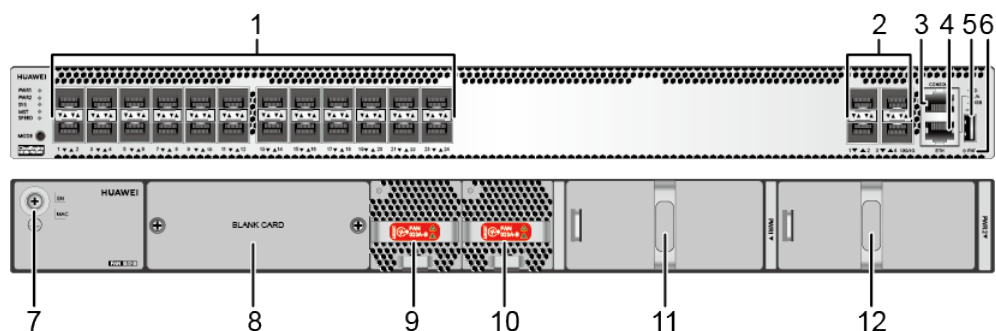
Overview

Table 4-1999 Basic information about the S5735S-H24S4XC-A

Item	Details
Description	S5735S-H24S4XC bundle (24*GE SFP ports, 4*10GE SFP+ ports, 1*expansion slot, 1*AC power module)
Part Number	98011041
Model	S5735S-H24S4XC-A
First supported version	V200R021C01

Components

Figure 4-690 S5735S-H24S4XC-A appearance



- | | | | |
|---|----------------------------------|---|------------------------------|
| 1 | Twenty-four 100/1000BASE-X ports | 2 | Four 10GE SFP+ optical ports |
| 3 | One console port | 4 | One ETH management port |
| 5 | One USB port | 6 | One PNP button |

NOTICE

To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.

To reset the switch, press the button.

Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7 Ground screw

NOTE

It is used with a [ground cable](#).

8 Rear card slot

NOTE

Applicable card:

- [S7X08000 \(02312URW\)](#)
- [S7X08000 \(02312URW-002\)](#)
(applicable in V200R021C10SPC600 and later versions)
- [ES5D21Q02Q00](#)
- [ES5D21Q04Q01](#)
- [S7Q02001 \(02313UBW\)](#)
- [S7Q02001 \(02313UBW-002\)](#)
(applicable in V200R021C10SPC600 and later versions)

9 Fan module slot 1

NOTE

Applicable fan module: [7.4 FAN-023A-B \(Fan box\(B,FAN panel side exhaust\)\)](#)

10 Fan module slot 2

NOTE

Applicable fan module: [7.4 FAN-023A-B \(Fan box\(B,FAN panel side exhaust\)\)](#)

11 Power module slot 1

NOTE

Applicable power modules:

- [5.20 PAC600S12-CB \(600 W AC&240 V DC Power Module\)](#)
- [5.21 PAC600S12-DB \(600 W AC&240 V DC Power Module\)](#)
- [5.22 PAC600S12-EB \(600 W AC&240 V DC Power Module\)](#)
- [5.30 PDC1000S12-DB \(1000 W DC Power Module\)](#)
- [5.12 PAC150S12-R \(150 W AC Power Module\)](#)
- [5.15 PDC180S12-CR \(180 W DC Power Module\)](#)

12 Power module slot 2

NOTE

Applicable power modules:

- [5.20 PAC600S12-CB \(600 W AC&240 V DC Power Module\)](#)
- [5.21 PAC600S12-DB \(600 W AC&240 V DC Power Module\)](#)
- [5.22 PAC600S12-EB \(600 W AC&240 V DC Power Module\)](#)
- [5.30 PDC1000S12-DB \(1000 W DC Power Module\)](#)
- [5.12 PAC150S12-R \(150 W AC Power Module\)](#)
- [5.15 PDC180S12-CR \(180 W DC Power Module\)](#)

Ports

Table 4-2000 Ports on the S5735S-H24S4XC-A

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	<ul style="list-style-type: none"> • FE SFP/eSFP optical modules • GE eSFP optical modules • GE SFP copper module

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

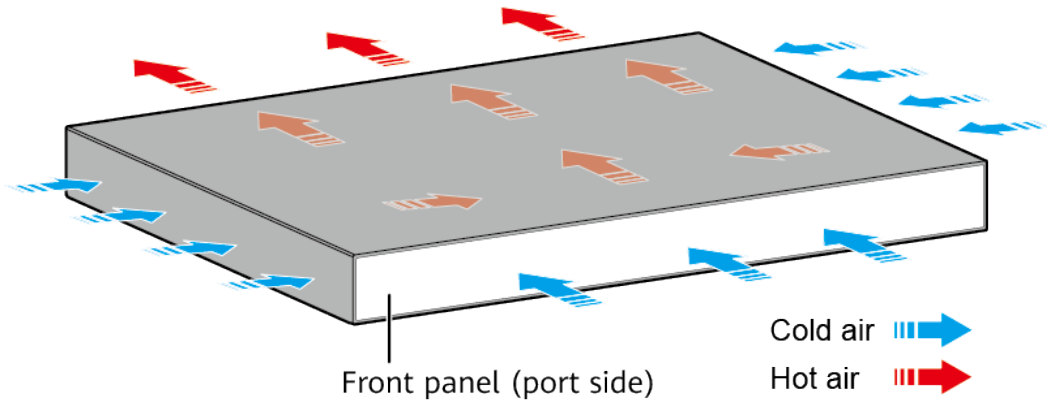
The S5735S-H24S4XC-A has the same types of indicators as the S5736-S24S4XC. For details, see the S5736-S24S4XC.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-2001 Technical specifications of the S5735S-H24S4XC-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.40 in. x 17.48 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	6 kg (13.23 lb)
Weight with packaging [kg(lb)]	9 kg (19.84 lb)
Typical power consumption [W]	63 W
Typical heat dissipation [BTU/hour]	214.96 BTU/hour
Maximum power consumption [W]	74 W
Maximum heat dissipation [BTU/hour]	252.5 BTU/hour
Static power consumption [W]	37 W
MTBF [years]	65.79 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	49.9 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	37.8 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz High-voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications depend on the pluggable power modules in use. For details, see the related power module specifications.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.40 S5736-S

4.40.1 S5736-S24UM4XC (98011020)

Overview

Table 4-2002 Basic information about the S5736-S24UM4XC

Item	Details
Description	S5736-S24UM4XC base (24*100M/1G Ethernet ports, optional RTU upgrade to 2.5/5/10G, 4*10GE SFP+ ports, 1*expansion slot, PoE++, without power module)
Part Number	98011020
Model	S5736-S24UM4XC
First supported version	V200R020C00
Other part numbers	98011020-001: S5736-S24UM4XC 2.5&10G bundle (12*100M/1G/2.5G Ethernet ports, 12*100M/1G/2.5G/5G/10G Ethernet ports, optional RTU upgrade to 5/10G, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power) 98011020-004: S5736-S24UM4XC 10G bundle (24*100M/1G/2.5G/5G/10G Ethernet ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power)

There are several S5736-S24UM4XC bundles, which consist of different power supplies and ports, as listed in [Table 4-2003](#).

Table 4-2003 S5736-S24UM4XC bundles

Part Number	Description	Remarks
98011020	S5736-S24UM4XC Base(24*100M/1G Ethernet ports,Optional RTU upgrade to 2.5/5/10G, 4*10GE SFP+ ports, 1*expansion slot, PoE ++, without power module)	<p>By default, no power supply is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s and 1000 Mbit/s. You can purchase an RTU license to increase the port rate to 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the rate "24*GE" supported by the multi-GE ports.</p>
98011020-001	S5736-S24UM4XC 2.5&10G Bundle(12*100M/1G/2.5G Ethernet ports, 12*100M/1G/2.5G/5G/10G Ethernet ports, Optional RTU upgrade to 5/10G, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power)	<p>By default, one 1000 W AC power module is configured.</p> <p>The 2.5GE RTU license for 12 multi-GE ports and the 10GE RTU license for another 12 multi-GE ports have been activated in factory default settings. You can run the assign group-speed command to configure these multi-GE ports as 12 x 2.5GE and 12 x 10GE ports. You can purchase an additional RTU license to upgrade the 2.5GE ports to 5GE or 10GE ports.</p> <p>There is a label on the rear side of the device, which contains the rate "12*2.5GE+12*10GE" supported by the multi-GE ports.</p>
98011020-004	S5736-S24UM4XC 10G Bundle(24*100M/1G/2.5G/5G/10G Ethernet ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power)	<p>By default, one 1000 W AC power module is configured.</p> <p>The 10GE RTU license for 24 multi-GE ports has been activated in factory default settings. You can run the assign group-speed command to configure these multi-GE ports as 24 x 10GE ports.</p> <p>There is a label on the rear side of the device, which contains the rate "24*10GE" supported by the multi-GE ports.</p>

NOTE

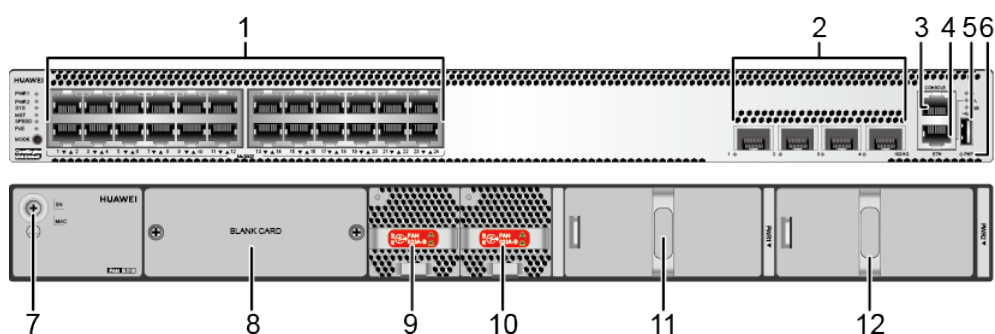
A pre-configured or loaded RTU (right to use) license of a device is bound to the device ESN and cannot be unbound or transferred to other devices.

For details about the RTU licenses supported by the device and how to load them, see the *License Usage Guide*.

The rate of MultiGE ports can be increased using the RTU license. After the license is activated, you can run the **assign group-speed** command and restart the device to make the configured maximum rate supported by the ports in the MultiGE port group take effect. To check the default rate of MultiGE ports, run the **display device group-speed configuration** command. The **BaseSpeed** field indicates the default rate.

Components

Figure 4-691 S5736-S24UM4XC appearance



1	Twenty-four 100M/1000M/2.5GE/5GE/10GE BASE-T PoE++ ports (multi-GE ports)	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Rear card slot</p> <p>NOTE Applicable card:</p> <ul style="list-style-type: none"> • S7X08000 (02312URW) (applicable in V200R020C10 and later versions) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • E55D21Q02Q00 • E55D21Q04Q01 • S7Q02001 (02313UBW) (applicable in V200R021C01 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions)
9	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	10	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
11	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions) 	12	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.25 PAC1000S56-CB (02312KND: 1000 W PoE AC&240 V DC Power Module) • 5.26 PAC1000S56-CB (02312KND-001: 1000 W PoE AC&240 V DC Power Module) • 5.27 PAC1000S56-DB (1000 W PoE AC&240 V DC Power Module) (applicable in V200R020C10 and later versions) • 5.29 PDC1000S56-CB (1000 W PoE DC Power Module) (applicable in V200R021C00 and later versions) • 5.23 PAC600S56-CB (600 W PoE AC&240 V DC Power Module (Back to Front, Power panel side exhaust)) (applicable in V200R021C10 and later versions)

Ports

[Table 4-2004](#) lists the maximum transmission distances of different cables on multi-GE ports.

Table 4-2004 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m	<ul style="list-style-type: none"> • 55 m • 100 m (6-a-1 bundle only for the first 30 m) Not recommended due to high risk	Not supported
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m	100 m	Not supported
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m	100 m	Not supported
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m	100 m	100 m

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

If a port works at a rate of 5 Gbit/s, you are advised not to use unshielded Ethernet cables due to the following causes:

- 802.3bz requires that the ALSNR value for alien crosstalk between Ethernet cables be greater than 0, but the standards for Cat5e and Cat6 unshielded twisted pairs do not specify the required ALSNR value. Therefore, such cables may not meet the crosstalk requirement in 802.3bz, causing severe problems such as continuous packet loss or port flapping may occur.
- According the cabling specification TIA TSB-5021, using Cat5e and Cat6 cables for 5G poses high risks.
- Currently, no clear onsite testing or evaluation method is available for checking whether ALSNR of cables conforms to 802.3bz.

If a port works at a rate of 5 Gbit/s and a Cat6 shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL Class E (+All) or TIA Cat 6 Channel (+All). If a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If a port works at a rate of 10 Gbit/s and a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If Cat5e and Cat6 unshielded twisted pairs do not meet the 5G requirement, you are advised to replace them with shielded twisted pairs or reduce the rate of ports to 2.5G.

If Cat5E, Cat6, or Cat6A unshielded twisted pairs are used on electrical ports working at 10 Gbit/s, severe problems such as continuous packet loss or port flapping may occur.

Table 4-2005 Ports on the S5736-S24UM4XC

Port	Connector Type	Description	Available Components
100M/1000M/ 2.5GE/5GE/10GE BASE-T PoE++ port (multi-GE port)	RJ45	A 100M/1000M/ 2.5GE/5GE/10GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s. The port supports the PoE function.	If the 2.5 Gbit/s or 5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. If the 10 Gbit/s speed is required, the port must use an Ethernet cable of Cat6A F/UTP or higher category.

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none">• GE eSFP optical modules• GE-CWDM eSFP optical modules• GE-DWDM eSFP optical modules• GE SFP copper module• 10GE SFP+ optical modules (OSXD22N00 not supported)• 10GE-CWDM SFP+ optical modules• 10GE-DWDM SFP+ optical modules• 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-692 Indicators on the S5736-S24UM4XC

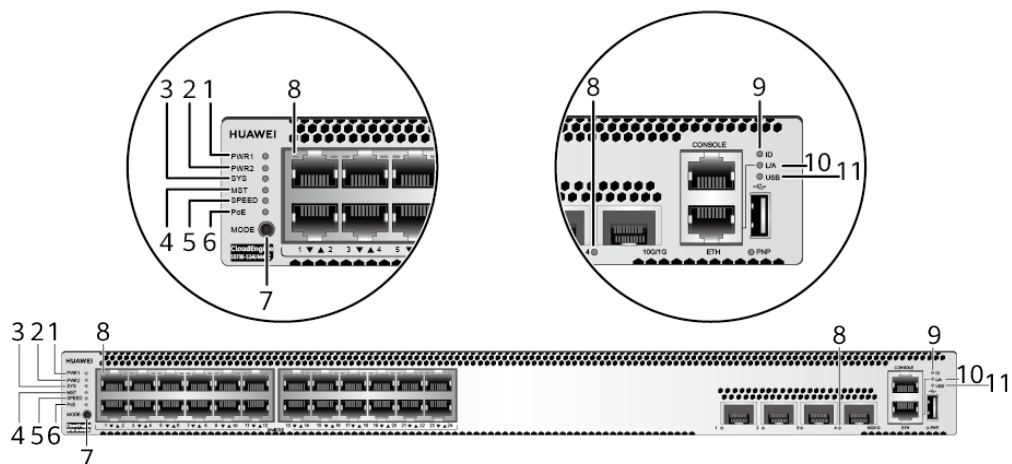


Table 4-2006 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
8	-	Multi-GE port indicator	The indicator in the upper left corner of a port indicates the indicator of a port at the top, and the indicator in the upper right corner indicates the indicator of a port at the bottom.		Meanings of service port indicators vary in different modes. For details, see Table 4-2007 .
		Optical port indicator	The position of the indicator corresponds to the port number.		
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-2007 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	Green	Off	Port indicators do not show the stack ID of the switch.
		Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
		Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 100 Mbit/s or 1000 Mbit/s. 1000M/10GE SFP+ port: The port is operating at 1000 Mbit/s.
	Green	Blinking	100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s. 1000M/10GE SFP+ port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.

Power Supply System

The switch is a PoE switch and supports two power module slots, each of which can have a 1000 W PoE or 600 W PoE power module installed. Pluggable AC and DC PoE power modules can be used together in the same switch.

Table 4-2008 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W AC (220 V) 1000 W DC	–	841 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 14 ● 802.3bt (90 W per port): 9
1000 W AC (110 V)	–	746 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1791 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 19
1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	1601 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 17
600 W AC (220 V)	–	461 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 15 ● 802.3bt (60 W per port): 7 ● 802.3bt (90 W per port): 5

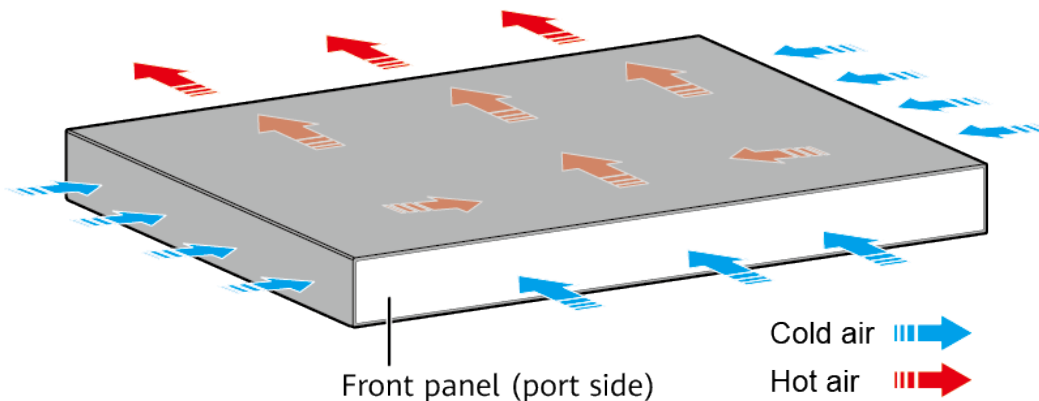
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
600 W AC (110 V)	–	176 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 11 • 802.3at (30 W per port): 5 • 802.3bt (60 W per port): 2 • 802.3bt (90 W per port): 1
600 W AC (220 V)	600 W AC (220 V)	1031 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 17 • 802.3bt (90 W per port): 11
600 W AC (110 V)	600 W AC (110 V)	461 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 15 • 802.3bt (60 W per port): 7 • 802.3bt (90 W per port): 5
1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	1411 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 23 • 802.3bt (90 W per port): 15

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-2009 Technical specifications of the S5736-S24UM4XC

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.40 in. x 17.64 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	6.7 kg (14.77 lb)
Weight with packaging [kg(lb)]	9.7 kg (21.39 lb)
Typical power consumption [W]	117 W
Typical heat dissipation [BTU/hour]	399.22 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Without PoE: 176 W (without cards) Full PoE load: 1967 W (PoE: 1791 W, without cards)

Item	Specification
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none">Without PoE: 600.53 (without cards)Full PoE load: 6711.60 (without cards)
Static power consumption [W]	71 W
MTBF [years]	59.44 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	70.1 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	58.1 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz High-voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	<ul style="list-style-type: none"> Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.40.2 S5736-S24S4XC

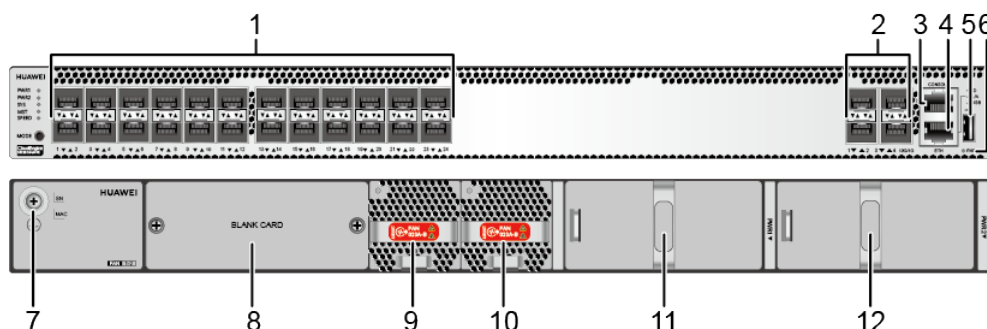
Overview

Table 4-2010 Basic information about the S5736-S24S4XC

Item	Details
Description	S5736-S24S4XC (24*GE SFP ports, 4*10GE SFP+ ports, 1*expansion slot, without power module)
Part Number	98011038
Model	S5736-S24S4XC
First supported version	V200R021C01

Components

Figure 4-693 S5736-S24S4XC appearance



1	Twenty-four 100/1000BASE-X ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Rear card slot</p> <p>NOTE Applicable card:</p> <ul style="list-style-type: none"> • S7X08000 (02312URW) (applicable in V200R020C10 and later versions) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • E55D21Q02Q00 • E55D21Q04Q01 • S7Q02001 (02313UBW) (applicable in V200R021C01 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions)
9	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	10	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
11	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) 	12	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module)

Ports

Table 4-2011 Ports on the S5736-S24S4XC

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE SFP copper module

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 4-694 Indicators on the S5736-S24S4XC

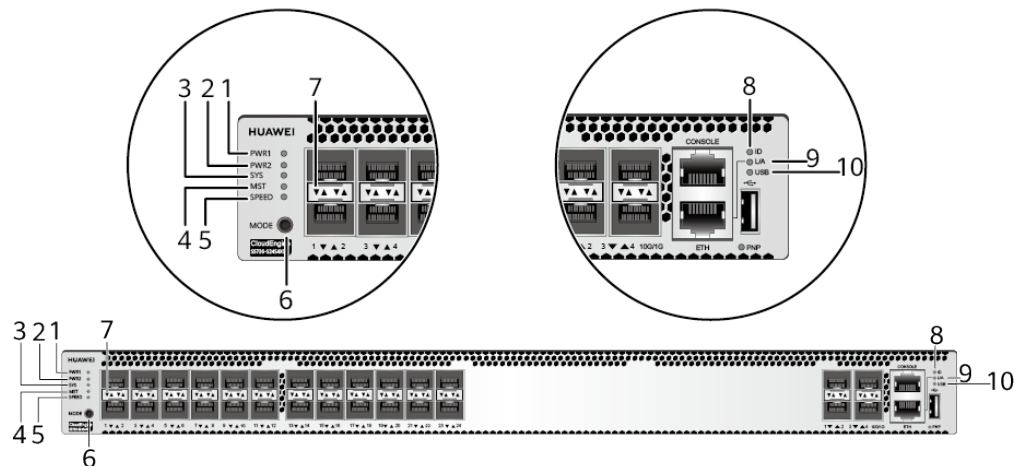


Table 4-2012 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
6	MODE	Mode switch button	-	-	<ul style="list-style-type: none">• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch.• When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port.• When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED indicator is off.</p> <p>NOTE</p> <p>Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none">• If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:<ul style="list-style-type: none">• If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.• If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.• If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

No.	Indicator	Name	Color	Status	Description
7	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see Table 4-2013 .
8	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
9	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
10	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 4-2013 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.
MST stack mode (LINK and ACT indicators)	-	Off	Port indicators do not show the stack ID of the switch.

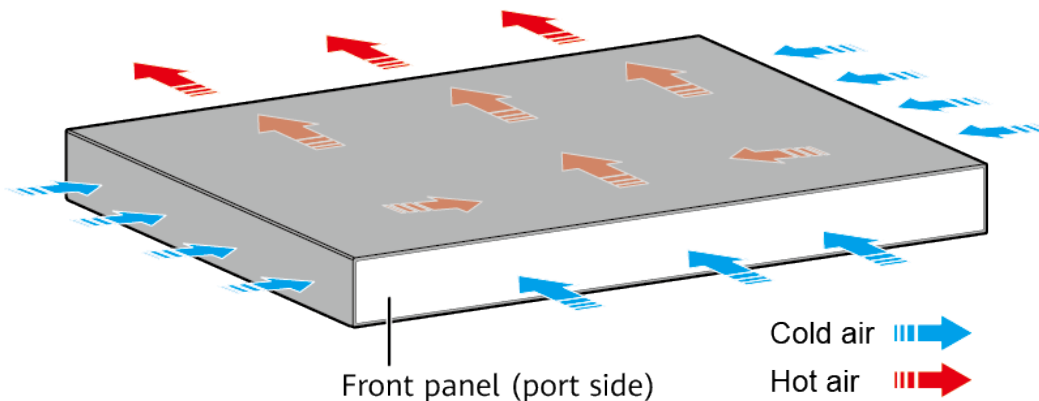
Display Mode	Color	Status	Description
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-2014 Technical specifications of the S5736-S24S4XC

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.40 in. x 17.48 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.2 kg (11.46 lb)
Weight with packaging [kg(lb)]	8.2 kg (18.08 lb)
Typical power consumption [W]	63 W
Typical heat dissipation [BTU/hour]	214.96 BTU/hour
Maximum power consumption [W]	74 W
Maximum heat dissipation [BTU/hour]	252.5 BTU/hour
Static power consumption [W]	37 W
MTBF [years]	65.79 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	49.9 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	37.8 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz High-voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications depend on the pluggable power modules in use. For details, see the related power module specifications.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.40.3 S5736-S48S4XC

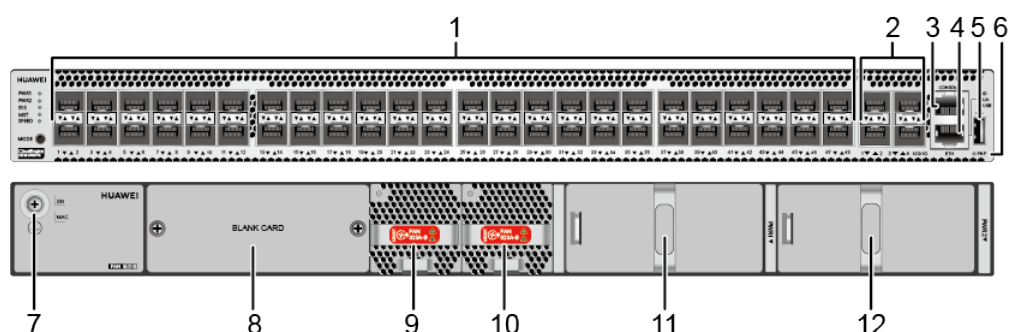
Overview

Table 4-2015 Basic information about the S5736-S48S4XC

Item	Details
Description	S5736-S48S4XC (48*GE SFP ports, 4*10GE SFP+ ports, 1*expansion slot, without power module)
Part Number	98011042
Model	S5736-S48S4XC
First supported version	V200R021C01

Components

Figure 4-695 S5736-S48S4XC appearance



1	Forty-eight 100/1000BASE-X ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Rear card slot</p> <p>NOTE Applicable card:</p> <ul style="list-style-type: none"> • S7X08000 (02312URW) (applicable in V200R020C10 and later versions) • S7X08000 (02312URW-002) (applicable in V200R021C10SPC600 and later versions) • E55D21Q02Q00 • E55D21Q04Q01 • S7Q02001 (02313UBW) (applicable in V200R021C01 and later versions) • S7Q02001 (02313UBW-002) (applicable in V200R021C10SPC600 and later versions)
9	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>	10	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 7.4 FAN-023A-B (Fan box(B,FAN panel side exhaust))</p>
11	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module) 	12	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 5.20 PAC600S12-CB (600 W AC&240 V DC Power Module) • 5.21 PAC600S12-DB (600 W AC&240 V DC Power Module) • 5.22 PAC600S12-EB (600 W AC&240 V DC Power Module) • 5.30 PDC1000S12-DB (1000 W DC Power Module) • 5.12 PAC150S12-R (150 W AC Power Module) • 5.15 PDC180S12-CR (180 W DC Power Module)

Ports

Table 4-2016 Ports on the S5736-S48S4XC

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	<ul style="list-style-type: none">• FE SFP/eSFP optical modules• GE eSFP optical modules• GE SFP copper module

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

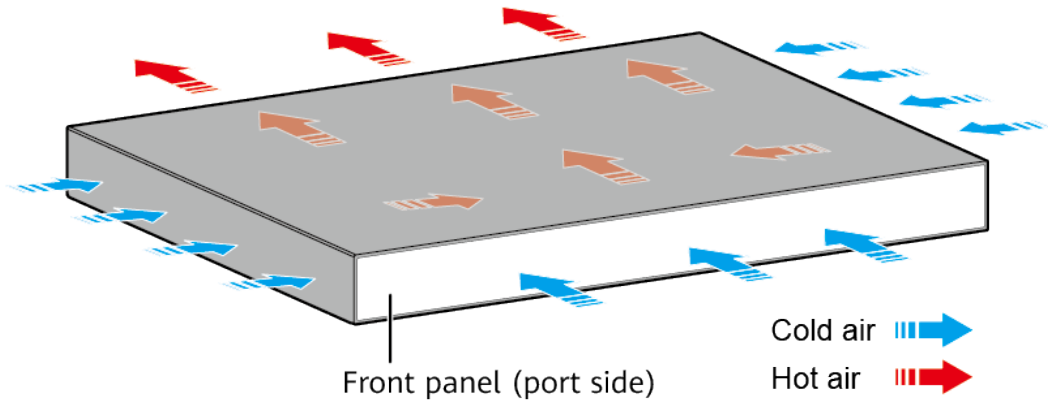
The S5736-S48S4XC has the same types of indicators as the S5736-S24S4XC. For details, see the S5736-S24S4XC.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch. However, the power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-2017 Technical specifications of the S5736-S48S4XC

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.40 in. x 17.48 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.5 kg (12.13 lb)
Weight with packaging [kg(lb)]	8.6 kg (18.96 lb)
Typical power consumption [W]	87 W
Typical heat dissipation [BTU/hour]	296.85 BTU/hour
Maximum power consumption [W]	100 W
Maximum heat dissipation [BTU/hour]	341.21 BTU/hour
Static power consumption [W]	48 W
MTBF [years]	53.69 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	49.9 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	37.8 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans modules	2
Redundant power supply	1+1 Pluggable AC and DC power modules can be used together in the same switch, but power modules that use natural heat dissipation and power modules that use air cooling cannot be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The device can work for a short period of time when the operating temperature is beyond the normal range, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The operating temperature can exceed 45°C (113°F) for a maximum of 96 consecutive hours in a year. • The total time when the operating temperature exceeds 45°C (113°F) in a year is less than or equal to 360 hours. • The number of times the operating temperature exceeds 45°C (113°F) is less than or equal to 15 in one year. <p>If any of the preceding conditions is not met, the device may be damaged or an unknown error may occur.</p> <p>Devices cannot start when the temperature is lower than 0°C (32°F). The maximum transmission distance of an optical module used for short-term operation cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • DC input: -48 V DC to -60 V DC

Item	Specification
Input voltage range [V]	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz High-voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications depend on the pluggable power modules in use. For details, see the related power module specifications.
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> Configured with AC power modules: ± 6 kV in differential mode and ± 6 kV in common mode Configured with DC power modules: ± 2 kV in differential mode and ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.40.4 S5736-S48S4X-A

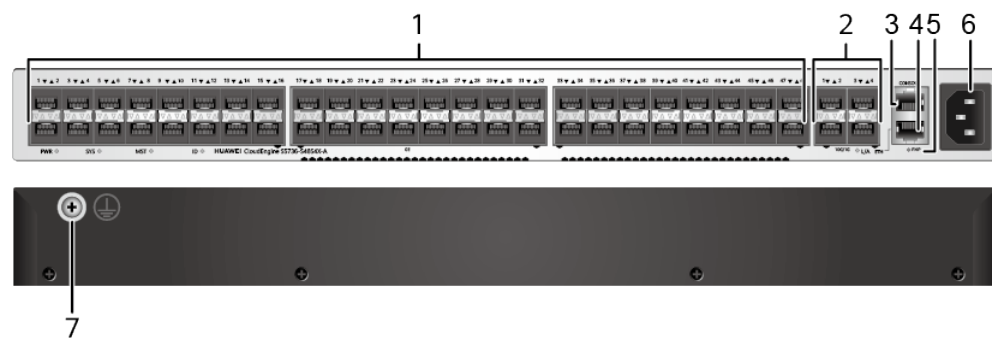
Overview

Table 4-2018 Basic information about the S5736-S48S4X-A

Item	Details
Description	S5736-S48S4X-A base (48*GE SFP ports, optional RTU upgrade to 10G, 4*10GE SFP+ ports, AC power supply, front access)
Part Number	98011606
Model	S5736-S48S4X-A
First supported version	V200R020C30

Components

Figure 4-696 S5736-S48S4X-A appearance



1	Forty-eight 1000BASE-X ports NOTE A RTU license (L-P1GUPG10G-S57S) can be loaded to increase the port rate to 10 Gbit/s.	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port

5	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	AC socket NOTE It is used with an AC power cable .
7	Ground screw NOTE It is used with a ground cable .	-	-

Ports

Table 4-2019 Ports on the S5736-S48S4X-A

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	<p>A 1000BASE-X port can send and receive data at 1000 Mbit/s.</p> <p>A license can be loaded to increase the port rate to 10 Gbit/s.</p>	<ul style="list-style-type: none">● GE eSFP optical modules● GE SFP copper module● 10GE SFP+ optical modules (need a license loaded, OSXD22N00 not supported, and the maximum transmission distance cannot exceed 10 km)● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables (need a license loaded)● 3 m and 10 m SFP+ AOC cables (need a license loaded)● 0.5 m and 1.5 m SFP+ dedicated stack cables (need a license loaded, supported by the last 16 ports and used only for zero-

Port	Connector Type	Description	Available Components
			<p>configuration stacking)</p>
<p>10GE SFP+ optical port</p>	<p>SFP+</p>	<p>A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.</p>	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking and not supported after the speed of the first 48 GE ports is increased to 10GE)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

Figure 4-697 Indicators on the S5736-S48S4X-A

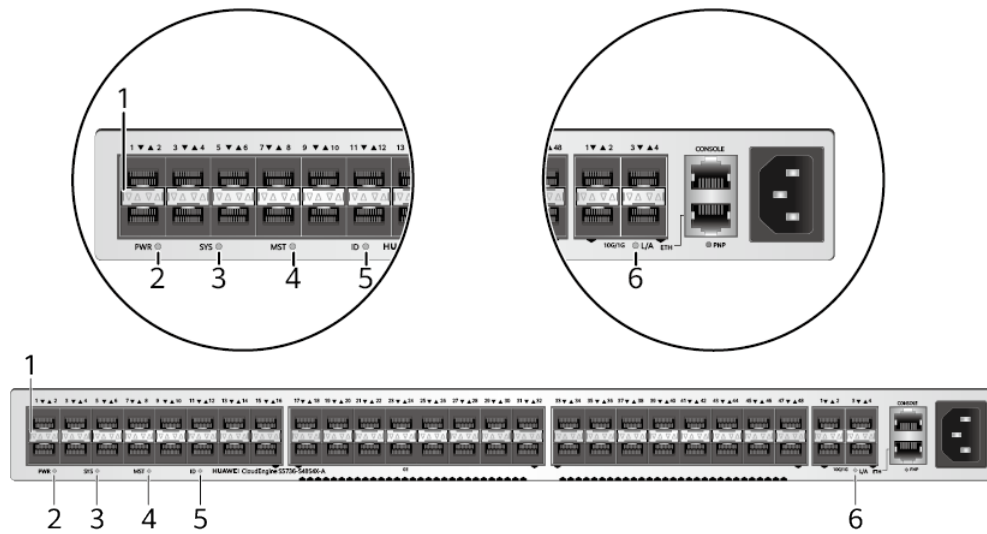


Table 4-2020 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	-	Service port indicator	Green	Off	The port is not connected or has been shut down.
				Steady on	A link has been established on the port.
			Yellow	Off	The port is not sending or receiving data.

No.	Indicator	Name	Color	Status	Description
		<p>NOTE Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.</p>		Blinking	The port is sending or receiving data.
2	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

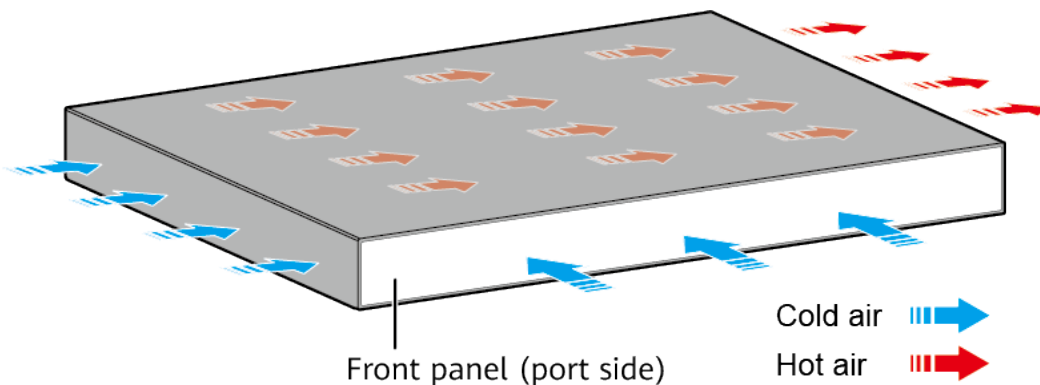
No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Blinking	The switch is the master switch in a stack or a standalone switch.
5	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
6	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The Eth port is sending or receiving data.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-2021 Technical specifications of the S5736-S48S4X-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 228.0 mm (1.72 in. x 17.4 in. x 9.0 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm × 555 mm × 345 mm (3.54 in. x 21.85 in. x 13.58 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.6 kg (7.9 lb)
Weight with packaging [kg(lb)]	4.7 kg (10.36 lb)
Typical power consumption [W]	87 W
Typical heat dissipation [BTU/hour]	296.85 BTU/hour
Maximum power consumption [W]	111 W
Maximum heat dissipation [BTU/hour]	378.74 BTU/hour
Static power consumption [W]	39 W
MTBF [years]	41.97 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	56.8 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	44.8 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	3
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)

Item	Specification
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	<ul style="list-style-type: none">AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6.0 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	±6 kV in differential mode, ±6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported

Item	Specification
Certification	EMC certification Safety certification Manufacturing certification

4.40.5 S5736-S48S4X-D

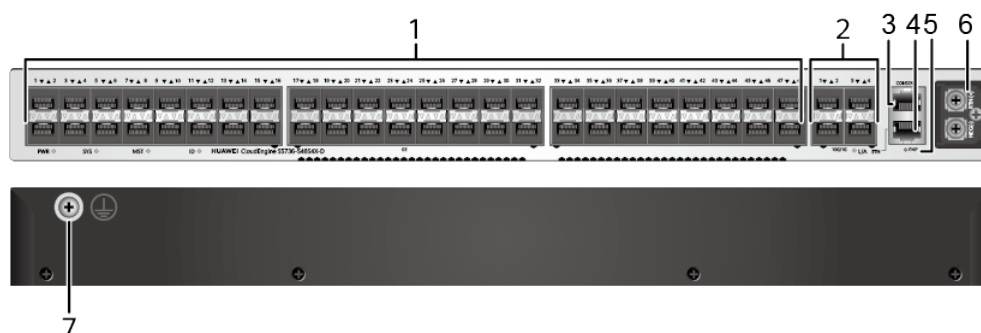
Overview

Table 4-2022 Basic information about the S5736-S48S4X-D

Item	Details
Description	S5736-S48S4X-D base (48*GE SFP ports, optional RTU upgrade to 10G, 4*10GE SFP+ ports, DC power supply, front access)
Part Number	98011607
Model	S5736-S48S4X-D
First supported version	V200R020C30

Components

Figure 4-698 S5736-S48S4X-D appearance



1	Forty-eight 1000BASE-X ports NOTE A RTU license (L-P1GUPG10G-S57S) can be loaded to increase the port rate to 10 Gbit/s.	2	Four 10GE SFP+ optical ports
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3	One console port	4	One ETH management port
5	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	DC power terminal NOTE It is used with DC Power Cable .
7	Ground screw NOTE It is used with a ground cable .	-	-

Ports

Table 4-2023 Ports on the S5736-S48S4X-D

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	<p>A 1000BASE-X port can send and receive data at 1000 Mbit/s.</p> <p>A license can be loaded to increase the port rate to 10 Gbit/s.</p>	<ul style="list-style-type: none"> ● GE eSFP optical modules ● GE SFP copper module ● 10GE SFP+ optical modules (need a license loaded, OSXD22N00 not supported, and the maximum transmission distance cannot exceed 10 km) ● 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables (need a license loaded) ● 3 m and 10 m SFP+ AOC cables (need a license loaded) ● 0.5 m and 1.5 m SFP+ dedicated stack cables (need a license loaded, supported by the last 16 ports and used only for zero-

Port	Connector Type	Description	Available Components
			<p>configuration stacking)</p>
<p>10GE SFP+ optical port</p>	<p>SFP+</p>	<p>A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.</p>	<ul style="list-style-type: none"> • GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (OSXD22N00 not supported) • 10GE-CWDM SFP+ optical modules • 10GE-DWDM SFP+ optical modules • 1 m, 3 m, 5 m, and 10 m SFP + high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking and not supported after the speed of the first 48 GE ports is increased to 10GE)

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Indicators and Buttons

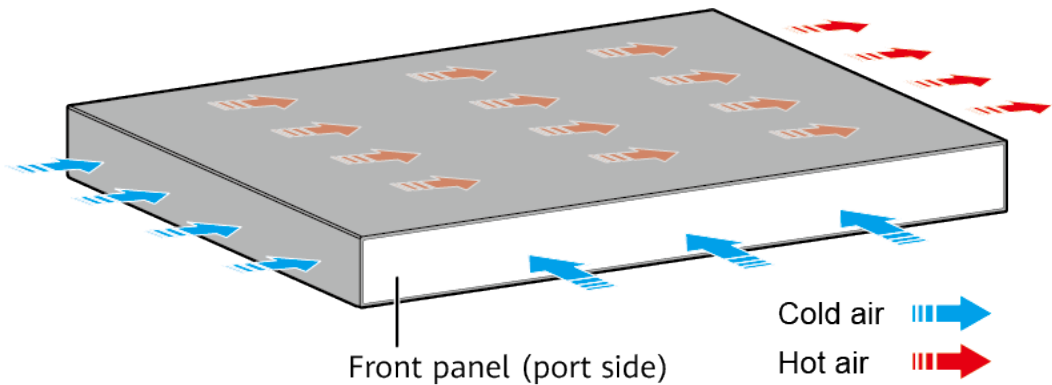
The S5736-S48S4X-D has the same types of indicators as the S5736-S48S4X-A. For details, see the S5736-S48S4X-A.

Power Supply System

The switch has a built-in DC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-2024 Technical specifications of the S5736-S48S4X-D

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 235.8 mm (1.72 in. x 17.4 in. x 9.3 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 555 mm x 345 mm (3.54 in. x 21.85 in. x 13.58 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.2 kg (7.1 lb)
Weight with packaging [kg(lb)]	4.3 kg (9.48 lb)
Typical power consumption [W]	87 W
Typical heat dissipation [BTU/hour]	296.85 BTU/hour
Maximum power consumption [W]	108 W
Maximum heat dissipation [BTU/hour]	368.51 BTU/hour
Static power consumption [W]	39 W
MTBF [years]	41.97 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	56.8 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	44.8 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	3
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)

Item	Specification
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	DC built-in
Rated input voltage [V]	-48 V DC to -60 V DC
Input voltage range [V]	-38.4 V DC to -72 V DC
Maximum input current [A]	6.0 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
Console port	RJ45
Eth Management port	RJ45
USB	Not supported
RTC	Supported
RPS input	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	±2 kV in differential mode, ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification