# 8 Cards

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8.30 ES5D00ETPC00 (Stack Rear Card)

8.31 ES5D00ETPB00 (Extended Rear Card)

# 8.1 Card Classification

**Table 8-1** lists the cards supported by the S5700.

**Table 8-1** Cards supported by the S5700

| Card Type | Card Name | Card Description | Hot swapping |
|---|---|---|---|
| Front card | ES5D000X2S00 | 2-port 10GE SFP+ optical interface card | Not supported |
| Front card | ES5D000X4S01 | 4-port 10GE SFP+ optical interface card | Not supported |
| Front card | ES5D000G4S01 | 4-port GE optical interface card | Not supported |
| Front card | ES5D00G4SA01 | 4-port GE optical interface card | Not supported |
| Front card | ES5D00X2SA00 | 2-port GE SFP or 10GE SFP+ optical interface card | Supported |
| Front card | ES5D00X4SA00 | 4-port GE SFP or 10GE SFP+ optical interface card | Supported |
| Front card | ES5D00G4SC00 | 4-port GE SFP optical interface card | Supported |
| Front card | ES5D21G16S00 | 16-port GE SFP optical interface card | Supported |
| Front card | ES5D21G16T00 | 16-port GE RJ45 interface card | Supported |

| Card Type | Card Name | Card Description | Hot swapping |
| --- | --- | --- | --- |
| Rear card | ES5D21G08S00 | 8-port GE SFP optical interface card | Supported |
| Rear card | ES5D21G08T00 | 8-port GE RJ45 interface card | Supported |
| Rear card | ES5D21X02S00 | 2-port GE SFP or 10GE SFP+ optical interface card | Supported |
| Rear card | ES5D00ETPC00 | Stack card | Not supported |
| Rear card | ES5D00ETPB00 | Extended channel card | Not supported |
| Rear card | ES5D21L04Q00 | 4-port 40GE QSFP+ optical interface card | Supported |
| Rear card | ES5D21Q02Q00 | 2-port 40GE QSFP+ optical interface card | Supported |
| Rear card | ES5D21Q04Q01 | 4-port 40GE QSFP+ optical interface card | Supported |
| Rear card | ES5D21X04S00 | 4-port 10GE SFP+ optical interface card | Supported |
| Rear card | ES5D21X04S01 | 4-port 10GE SFP+ optical interface card | Supported |
| Rear card | ES5D21X02S01 | 2-port 10GE SFP+ optical interface card | Supported |
| Rear card | ES5D21X02T01 | 2-port 10GBASE-T RJ45 interface card | Supported |
| Rear card | ES5D21X08T00 | 8-port 10GBASE-T RJ45 interface card | Supported |
| Rear card | ES5D21X08S00 | 8-port 10GE SFP+ optical interface card | Supported |
| Rear card | ES5D21VST000 | Dedicated stack card with 2*QSFP+ interface | Supported |
| Rear card | S7X08000 | 8-port 10GE SFP+ or 2-port 25GE SFP28 optical interface card (only ports 1 and 2 support 25GE) | Supported |
| Rear card | S7Y08000 | 8-port 25GE SFP28 optical interface card | Supported |
| Rear card | S7Q02001 | 2-port 40GE QSFP+ optical interface card | Supported |

| Card Type | Card Name | Card Description | Hot swapping |
| --- | --- | --- | --- |
| Rear card | S7C02000 | 2-port 100GE QSFP28 optical interface card | Supported |

NOTE

Some cards are sold with other cards, for example, front card ES5D000X4S01 is sold with rear card ES5D00ETPB00. When a card is faulty, provide the bar code of the card for technical support personnel to fix the problem.

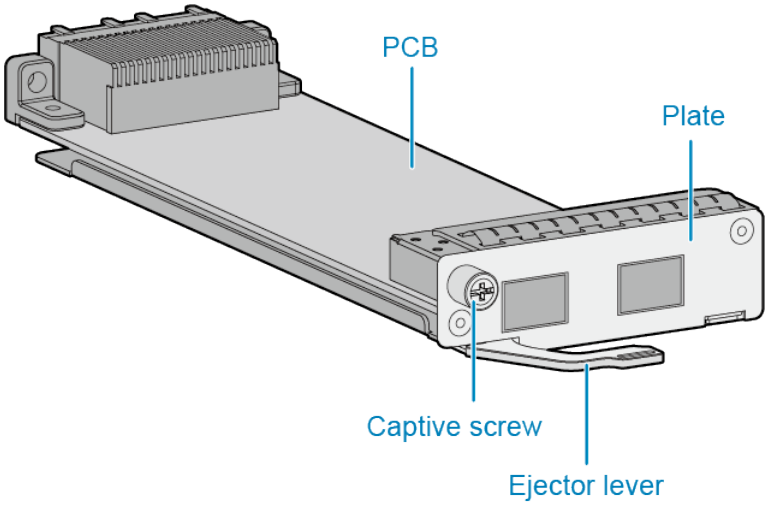
The cards supported by a switch depend on the software version. For details, see **Info-finder**.

# 8.2 Card Structure and Dimensions

## Card Structure

**Figure 8-1** shows the card appearance.

**Figure 8-1** Card appearance




A card consists of the following components:

- Printed circuit board (PCB)

  The PCB contains all the functional chips of the card and is the core of the card. The PCB provides indicators and ports on the front panel.

  NOTE

  Different cards provide different indicators and ports. For details, see the description of specific cards.

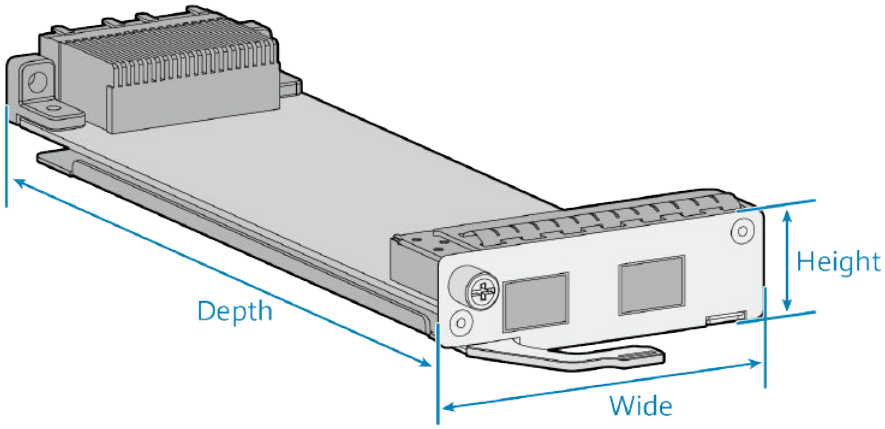
  

- Front panel, consisting of the captive screws, ejector levers, and plate
  - Captive screw: fixes the card into the chassis.
  - Ejector lever: allows you to insert and remove the card.
  - Plate: joins the ejector levers and the PCB.

## Card Dimensions

Figure 8-2 shows the width, height, and depth of a card.

**Figure 8-2** Card dimensions




NOTE

The card dimensions are defined as follows:

- Width: the longest distance between the tops of two ejector levers
- Depth: the distance between the plate and the end of PCB
- Height: the height of the front panel

# 8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card)

## Version Mapping

Table 8-2 lists the mapping between the ES5D000X2S00 card and software versions.

**Table 8-2** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D000X2S00<br>**NOTE**<br>After the **display device** command is executed, the PCB model of the card is displayed as ES510X2S. | V100R005C01 to V200R005C03<br>**NOTE**<br>This module is not supported in V200R003C02 or V200R003C10. |

## Card Overview

The ES5D000X2S00 provides two 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a front card slot of the switch models listed in **Table 8-3**.

**Table 8-3** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D000X2S00 | • S5700-28C-SI<br>• S5700-52C-SI<br>• S5700-28C-PWR-SI<br>• S5700-52C-PWR-SI<br>• S5700-28C-EI<br>• S5700-52C-EI<br>• S5700-28C-EI-24S<br>• S5700-28C-PWR-EI<br>• S5700-52C-PWR-EI<br>• S5710-28C-LI<br>• S5710-52C-LI<br>• S5710-28C-PWR-LI<br>• S5710-52C-PWR-LI |

**Figure 8-3** shows the appearance of the ES5D000X2S00.

**Figure 8-3** ES5D000X2S00

## Functions

Table 8-4 describes functions of the ES5D000X2S00.

**Table 8-4** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides two 10GE SFP+ optical ports for data access and line-rate switching. |
| 10GE port | A 10GE port is often used as an uplink aggregation port on high-bandwidth and high-speed MANs or backbone networks. When an enterprise needs high-quality triple-play service, use the ES5D000X2S00 to provide access ports for downlink devices or networks. Different transmission distances can be supported by using SFP+ optical modules. |

## Usage Constraints

**NOTICE**

The ES5D000X2S00 is not hot swappable.

## Indicators and Ports

Figure 8-4 shows indicators on the ES5D000X2S00.

**Figure 8-4** Indicators on the ES5D000X2S00

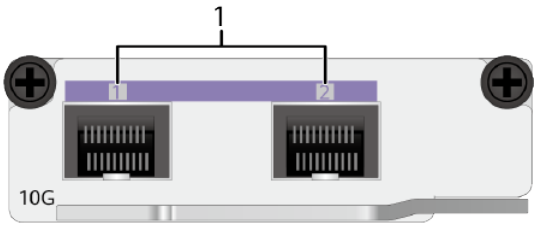


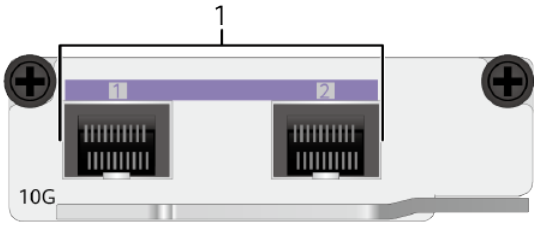

Table 8-5 shows indicators on the ES5D000X2S00.

**Table 8-5** Indicator description

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

shows the ports on the ES5D000X2S00.

**Figure 8-5** Ports on the ES5D000X2S00




| |
| --- |
| 1. Two 10GE SFP+ ports |

### 10GE SFP+ port

The ES5D000X2S00 provides two 10GE optical ports to transmit and receive Ethernet service data at 1 Gbit/s or 10 Gbit/s. Table 8-6 describes attributes of a 10GE SFP+ optical port.

NOTE

When used on the S5710-C-LI, the 10GE SFP+ ports support the 10GE SFP+ and GE SFP optical modules. When used on the S5700-SI, the 10GE SFP+ ports support 10GE SFP+ optical modules, GE optical modules, and GE copper modules (applicable in V200R002C00 and later versions and used with shielded Ethernet cables), SFP+ copper cables (applicable in V200R002C00 and later versions), and AOC cables (applicable in V200R003C00 and later versions). When used on the S5700-EI, the 10GE SFP+ ports support 10GE SFP+ optical modules, SFP+ copper cables (applicable in V200R002C00 and later versions), and AOC cables (applicable in V200R003C00 and later versions).

**Table 8-6** Attributes of a 10GE SFP+ optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |
| Optical port attributes | Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, and **10.14 10GE-CWDM SFP+ Optical Modules**) |
| Standards compliance | IEEE 802.3ae |

## Technical Specifications

**Table 8-7** describes the technical specifications of the ES5D000X2S00.

**Table 8-7** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 22 mm x 70 mm x 197 mm (0.87 in. x 2.8 in. x 7.8 in.)<br>• Weight: 0.2 kg (0.44 lb)<br>• Maximum power consumption: 6.5 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-8** provides the ES5D000X2S00 ordering information.

**Table 8-8** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 2-port 10GE SFP+ optical interface card (front card) | ES5D000X2S00 | 03020XEV |

# 8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)

## Version Mapping

Table 8-9 lists the mapping between the ES5D000X4S01 card and software versions.

**Table 8-9** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D000X4S01<br>**NOTE**<br>After the **display device** command is executed, the PCB model of the card is displayed as ES510X4S. | V100R005C01 to V200R005C03<br>**NOTE**<br>This module is not supported in V200R003C02 or V200R003C10. |

## Card Overview

The ES5D000X4S01 provides four 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a front card slot of the switch models listed in Table 8-10.

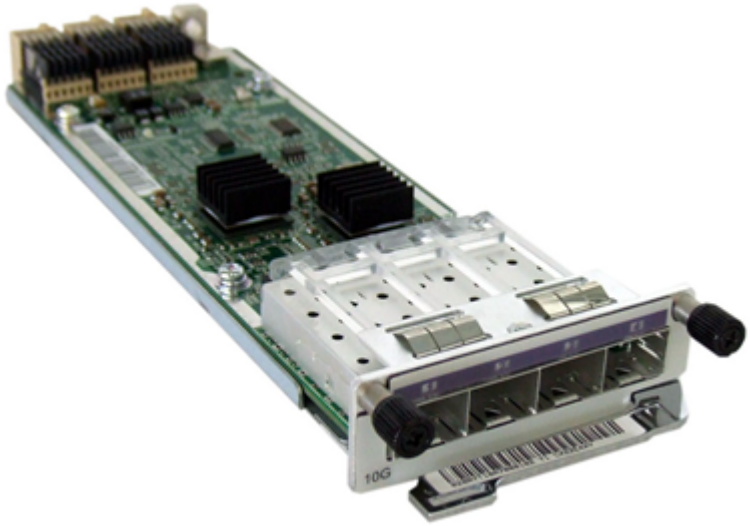
  

**Table 8-10** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D000X4S01 | • S5700-28C-SI<br>• S5700-52C-SI<br>• S5700-28C-PWR-SI<br>• S5700-52C-PWR-SI<br>• S5700-28C-EI<br>• S5700-52C-EI<br>• S5700-28C-EI-24S<br>• S5700-28C-PWR-EI (PCB version: VB)<br>• S5700-52C-PWR-EI (PCB version: VB)<br>• S5710-28C-LI<br>• S5710-52C-LI<br>• S5710-28C-PWR-LI<br>• S5710-52C-LI |

**Figure 8-6** shows the appearance of the ES5D000X4S01.

**Figure 8-6** ES5D000X4S01




## Functions

**Table 8-11** describes functions of the ES5D000X4S01.

**Table 8-11** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides two/four 10GE SFP+ optical ports for data access and line-rate switching. |
| 10GE port | A 10GE port is often used as an uplink aggregation port on high-bandwidth and high-speed MANs or backbone networks. When an enterprise needs high-quality triple-play service, use the ES5D000X4S01 to provide access ports for downlink devices or networks. Different transmission distances can be supported by using SFP+ optical modules. |

## Usage Constraints

NOTICE

- The ES5D000X4S01 front card can provide four ports only if it is used with an ES5D00ETPB00 extended rear card. If no ES5D00ETPB00 extended rear card is used, only ports 1 and 3 on the ES5D000X4S01 front card are available. The names of ports 1 and 3 are respectively XGigabitEthernet */1/1 and XGigabitEthernet */1/2, where * indicates the slot ID.
- The ES5D000X4S01 front card must be used with an ES5D00ETPB00 card whose PCB version is VC.
- The ES5D000X4S01 front card must be used with PCB of VB or later versions on S5700-EI switches (VC on S5700-52C-EI). Use the **display version** command to check the PCB version of a switch.
- The ES5D000X4S01 is not hot swappable.

## Indicators and Ports

Figure 8-7 shows indicators on the ES5D000X4S01/

**Figure 8-7** Indicators on the ES5D000X4S01


Table 8-12 describes indicators on the ES5D000X4S01.

**Table 8-12** Indicator description

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

Figure 8-8 shows the ports on the ES5D000X4S01.

**Figure 8-8** Ports on the ES5D000X4S01


| |
| --- |
| 1. Four 10GE SFP+ optical ports |

### 10GE SFP+ optical port

The ES5D000X4S01 provides four 10GE optical ports to transmit and receive Ethernet service data at 1 Gbit/s or 10 Gbit/s. Table 8-13 describes attributes of a 10GE SFP+ optical port.

**NOTE**

When used on the S5710-C-LI, the 10GE SFP+ ports support the 10GE SFP+ and GE SFP optical modules. When used on the S5700-SI, the 10GE SFP+ ports support 10GE SFP+ optical modules, GE optical modules, and GE copper modules (applicable in V200R002C00 and later versions and used with shielded Ethernet cables), SFP+ copper cables (applicable in V200R002C00 and later versions), and AOC cables (applicable in V200R003C00 and later versions). When used on the S5700-EI, the 10GE SFP+ ports support 10GE SFP+ optical modules, SFP+ copper cables (applicable in V200R002C00 and later versions), and AOC cables (applicable in V200R003C00 and later versions).

**Table 8-13** Attributes of a 10GE SFP+ optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |

| Attribute | Description |
| --- | --- |
| Optical port attributes | Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, and **10.14 10GE-CWDM SFP+ Optical Modules**) |
| Standards compliance | IEEE 802.3ae |

## Technical Specifications

**Table 8-14** lists technical specifications of the ES5D000X4S01.

**Table 8-14** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 22 mm x 70 mm x 197 mm (0.87 in. x 2.8 in. x 7.8 in.)<br>• Weight: 0.3 kg (0.66 lb)<br>• Maximum power consumption: 13 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-15** provides the ES5D000X4S01 ordering information.

**Table 8-15** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 4-port 10GE SFP+ optical interface card (consisting of an ES5D000X4S01 4-port 10GE front card and an ES5D00ETPB00 extended channel rear card) | ES5D000X4S00<br>**NOTE**<br>The ES5D000X4S01 front card must work with the ES5D00ETPB00 rear card, so the two cards are sold together. ES5D000X4S00 is the name of the combination of the two cards. | 02319956 |

# 8.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card)

## Version Mapping

Table 8-16 lists the mapping between the ES5D000G4S01 card and software versions.

**Table 8-16** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D000G4S01<br>**NOTE**<br>After the **display device** command is executed, the PCB model of the card is displayed as ES510G4S. | V100R005C01 to V200R005C03<br>**NOTE**<br>This module is not supported in V200R003C02 or V200R003C10. |

## Card Overview

The ES5D000G4S01 provides four GE SFP optical ports for data access and line-rate switching. It can be installed in a front card slot of the switch models listed in Table 8-17.

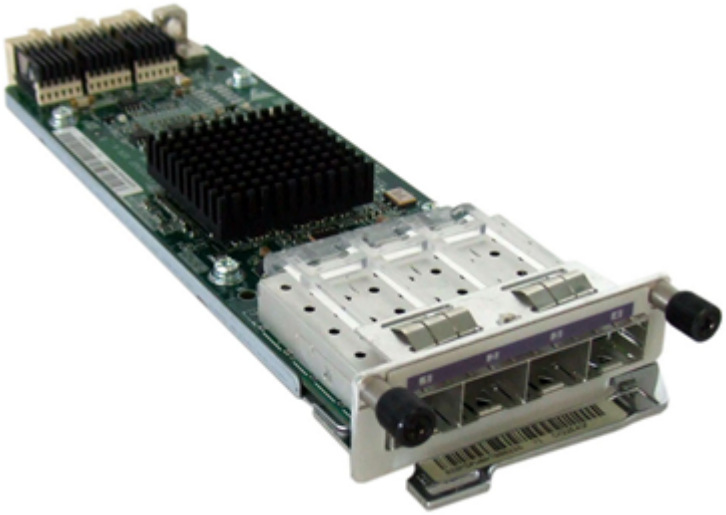
**Table 8-17** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D000G4S01 | • S5700-28C-EI<br>• S5700-52C-EI<br>• S5700-28C-EI-24S<br>• S5700-28C-PWR-EI<br>• S5700-52C-PWR-EI |

Figure 8-9 shows the appearance of the ES5D000G4S01.

**Figure 8-9** ES5D000G4S01



## Functions

Table 8-18 describes functions of the ES5D000G4S01.

**Table 8-18** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides four GE SFP optical ports for data access and line-rate switching. |
| GE port | A GE port is often used as an uplink aggregation port on high-bandwidth and high-speed MANs or backbone networks. When an enterprise needs high-quality triple-play service, use the ES5D000G4S01 to provide access ports for downlink devices or networks. |

## Usage Constraints

**NOTICE**

- If the ES5D000G4S01 is installed on the S5700-SI or S5710-C-LI, the front card cannot register.
- The ES5D000G4S01 front card can provide four ports only if it is used with an ES5D00ETPB00 extended rear card. If no ES5D00ETPB00 extended rear card is used, only the first two ports on the ES5D000G4S01 front card are available.
- When an S5700-EI is equipped with the ES5D00ETPC00 stack rear card, only ports 1 and 2 are available if the ES5D000G4S01 front card is used.
- The ES5D000G4S01 is not hot swappable.

## Indicators and Ports

Figure 8-10 shows indicators on the ES5D000G4S01.

**Figure 8-10** Indicators on the ES5D000G4S01

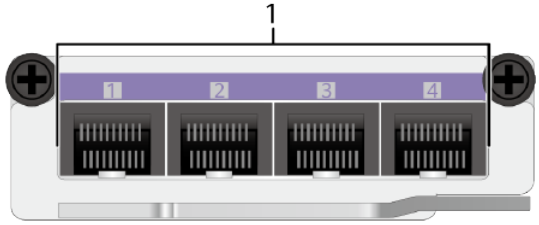

Table 8-19 describes indicator status on the ES5D000G4S01.

**Table 8-19** Indicator description

| Number | Indicator | Color | Description |
|---|---|---|---|
| 1 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

Figure 8-11 shows the ports on the ES5D000G4S01.

**Figure 8-11** Ports on the ES5D000G4S01



| |
|---|
| 1. Four GE SFP optical ports |

**GE SFP port**

The ES5D000G4S01 provides four GE optical ports to transmit and receive Ethernet service data at 1000 Mbit/s. **Table 8-20** describes attributes of an SFP optical port.

NOTE

The GE SFP ports support GE optical and copper modules (used with shielded Ethernet cables).

A GE SFP port can go Up after a GE copper module is installed. However, electrical attributes, such as the rate, duplex mode, auto-negotiation, MDI, flow control, and virtual cable test, are not configurable in this case.

**Table 8-20** Attributes of an SFP optical port

| Attribute | Description |
|---|---|
| Connector type | LC/PC |
| Optical port attributes | Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, and **10.10 GE SFP Copper Modules**) |
| Standards compliance | IEEE 802.3z |

## Technical Specifications

**Table 8-21** lists technical specifications of the ES5D000G4S01.

**Table 8-21** Technical specifications

| Item | Description |
|---|---|
| Physical specifications | • Dimensions (H x W x D): 22 mm x 70 mm x 197 mm (0.87 in. x 2.8 in. x 7.8 in.)<br>• Weight: 0.2 kg (0.44 lb)<br>• Maximum power consumption: 6 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the

latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-22 provides the ES5D000G4S01 ordering information.

**Table 8-22** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 4-port GE SFP optical interface card (consisting of an ES5D000G4S01 4-port GE front card and an ES5D00ETPB00 extended channel rear card)<br>This card is applicable to the EI series. | ES5D000G4S00<br>**NOTE**<br>The ES5D000G4S01 front card must work with the ES5D00ETPB00 rear card, so the two cards are sold together. ES5D000G4S00 is the name of the combination of the two cards. | 02319957 |

# 8.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card)

## Version Mapping

Table 8-23 lists the mapping between the ES5D00G4SA01 card and software versions.

**Table 8-23** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D00G4SA01<br>**NOTE**<br>After the **display device** command is executed, the PCB model of the card is displayed as ES510G4SA. | V100R005C01 to V200R005C02<br>**NOTE**<br>This module is not supported in V200R001C01, V200R003C02, V200R003C10, or V200R005C01. |

## Card Overview

The ES5D00G4SA01 provides four GE SFP optical ports for data access and line-rate switching. It can be installed in a front card slot of the switch models listed in Table 8-24.

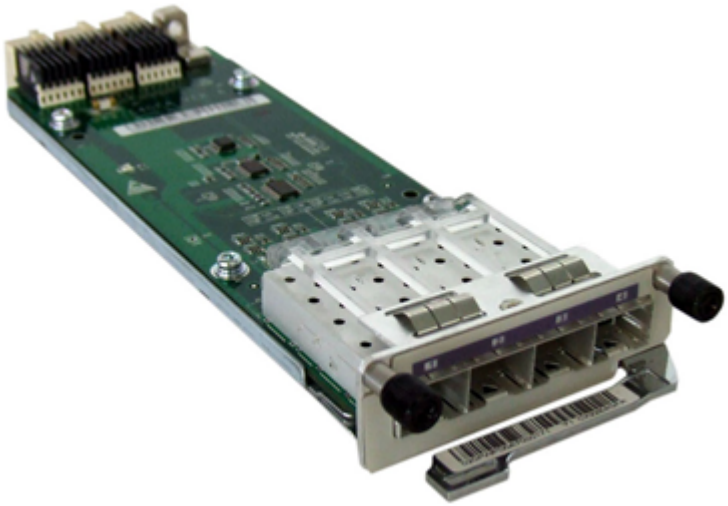
  

**Table 8-24** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D00G4SA01 | • S5700-28C-SI<br>• S5700-52C-SI<br>• S5700-28C-PWR-SI<br>• S5700-52C-PWR-SI<br>• S5710-28C-LI<br>• S5710-52C-LI<br>• S5710-28C-PWR-LI<br>• S5710-52C-PWR-LI |

Figure 8-12 shows the appearance of the ES5D00G4SA01.

**Figure 8-12** ES5D00G4SA01



## Functions

Table 8-25 describes functions of the ES5D00G4SA01.

**Table 8-25** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides four GE SFP optical ports for data access and line-rate switching. |

| Function | Description |
| --- | --- |
| GE port | A GE port is often used as an uplink aggregation port on high-bandwidth and high-speed MANs or backbone networks. When an enterprise needs high-quality triple-play service, use the ES5D00G4SA01 to provide access ports for downlink devices or networks. |

## Usage Constraints

NOTICE

- If the ES5D00G4SA01 is installed on the S5700-EI, the front card cannot register.
- The ES5D00G4SA01 front card can provide four ports only if it is used with an ES5D00ETPB00 extended rear card. If no ES5D00ETPB00 extended rear card is used, only the first two ports on the ES5D00G4SA01 front card are available.
- When an S5700-SI/S5710-C-LI is equipped with the ES5D00ETPC00 stack rear card, only ports 1 and 2 are available if the ES5D00G4SA01 front card is used.
- The ES5D00G4SA01 is not hot swappable.

## Indicators and Ports

Figure 8-13 shows indicators on the ES5D00G4SA01.

**Figure 8-13** Indicators on the ES5D00G4SA01

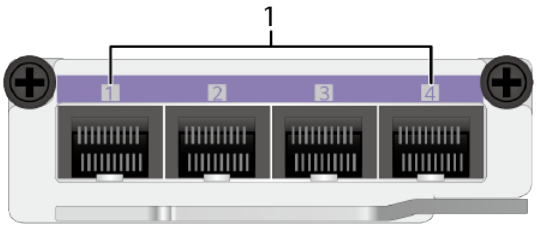



Table 8-26 describes indicator status on the ES5D00G4SA01.

**Table 8-26** Indicator description

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

**Figure 8-14** shows the ports on the ES5D00G4SA01.

**Figure 8-14** Ports on the ES5D00G4SA01


1. Four GE SFP optical ports

### GE SFP optical port

The ES5D00G4SA01 provides four GE optical ports to transmit and receive Ethernet service data at 1000 Mbit/s. **Table 8-27** describes attributes of an SFP optical port.

NOTE

The GE SFP ports support GE optical and copper modules (used with shielded Ethernet cables).

A GE SFP port can go Up after a GE copper module is installed. However, electrical attributes, such as the rate, duplex mode, auto-negotiation, MDI, flow control, and virtual cable test, are not configurable in this case.

**Table 8-27** Attributes of an SFP optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |

| Attribute | Description |
| --- | --- |
| Optical port attributes | Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, and **10.10 GE SFP Copper Modules**) |
| Standards compliance | IEEE 802.3z |

## Technical Specifications

**Table 8-28** lists technical specifications of the ES5D00G4SA01.

**Table 8-28** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 22 mm x 70 mm x 197 mm (0.87 in. x 2.8 in. x 7.8 in.)<br>• Weight: 0.2 kg (0.44 lb)<br>• Maximum power consumption: 4.5 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-29** provides the ES5D00G4SA01 ordering information.

**Table 8-29** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 4-port GE SFP optical interface card (consisting of an ES5D00G4SA01 4-port GE front card and an ES5D00ETPB00 extended channel rear card)<br>This card is applicable to the SI series. | ES5D00G4SA00<br>**NOTE**<br>The ES5D00G4SA01 front card must work with the ES5D00ETPB00 rear card, so the two cards are sold together. ES5D00G4SA00 is the name of the combination of the two cards. | 02319958 |

# 8.7 ES5D00X2SA00 (2-Port GE SFP/10GE SFP+ Front Optical Interface Card)

## Version Mapping

Table 8-30 lists the mapping between the ES5D00X2SA00 card and software versions.

**Table 8-30** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D00X2SA00<br>**NOTE**<br>After the **display device** command is executed, the PCB model of the card is displayed as ES510X2SA. | V100R006C01 to V200R005C02<br>**NOTE**<br>This module is not supported in V200R003C02 or V200R003C10. |

## Card Overview

The ES5D00X2SA00 provides two 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a card slot of the switch models listed in Table 8-31.

**Table 8-31** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D00X2SA00 | • S5700-28C-HI<br>• S5700-28C-HI-24S |

Figure 8-15 shows the appearance of the ES5D00X2SA00.

**Figure 8-15** ES5D00X2SA00

## Functions

Table 8-32 describes functions of the ES5D00X2SA00.

**Table 8-32** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides two 10GE SFP+ optical ports respectively for data access and line-rate switching. |
| Enhanced service | The S5700-HI powers on or off the ES5D00X2SA00, detects whether the ES5D00X2SA00 is installed or not, and manages PHY chips and optical ports on the ES5D00X2SA00. They provide hardware-based OAM and BFD for the switch. |
| Hot swapping | Supported |
| Service ports for stacking | The service ports on the ES5D00X2SA00 can be used as stack ports on an S5700-HI switch.<br>**NOTE**<br>The S5700-HI has supported service port-based stacking since V200R003C00. |

## Indicators and Ports

Figure 8-16 shows indicators on the ES5D00X2SA00.

**Figure 8-16** Indicators on the ES5D00X2SA00

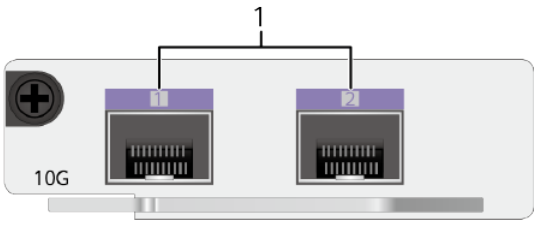



Table 8-33 shows indicators on the ES5D00X2SA00.

**Table 8-33** Indicator description

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

Figure 8-17 shows ports on the ES5D00X2SA00.

**Figure 8-17** Ports on the ES5D00X2SA00


| |
| --- |
| 1. Two/Four 10GE SFP+ optical ports |

### 10GE SFP+ optical port

The ES5D00X2SA00 provides two 10GE optical ports (GE/10GE auto-sensing) respectively to transmit and receive Ethernet service data at 1 Gbit/s or 10 Gbit/s. Table 8-34 describes attributes of an SFP+ optical port.

NOTE

The 10GE SFP+ optical ports support 10GE SFP+ optical modules, GE optical modules, GE copper modules (in V200R002C00 and later versions, used with shielded twisted pair cables), SFP+ cables (in V200R002C00 and later versions), and AOC cables (in V200R003C00 and later versions).

**Table 8-34** Attributes of a 10GE SFP+ optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |

| Attribute | Description |
| --- | --- |
| Optical port attributes | Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, and **10.14 10GE-CWDM SFP+ Optical Modules**) |
| Standards compliance | IEEE 802.3ae |

## Technical Specifications

**Table 8-35** lists technical specifications of the ES5D00X2SA00.

**Table 8-35** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 23 mm x 77 mm x 207 mm (0.9 in. x 3.0 in. x 8.1 in.)<br>• Weight: 0.5 kg (1.10 lb)<br>• Maximum power consumption: 7 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-36** provides the ES5D00X2SA00 ordering information.

**Table 8-36** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 2-port GE SFP or 10GE SFP+ optical interface card (front card) | ES5D00X2SA00 | 03021JYN |

# 8.8 ES5D00X4SA00 (4-Port GE SFP/10GE SFP+ Front Optical Interface Card)

## Version Mapping

Table 8-37 lists the mapping between the ES5D00X4SA00 card and software versions.

**Table 8-37** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D00X4SA00<br>**NOTE**<br>After the **display device** command is executed, the PCB model of the card is displayed as ES510X4SA. | V100R006C01 to V200R005C02<br>**NOTE**<br>This module is not supported in V200R003C02 or V200R003C10. |

## Card Overview

The ES5D00X4SA00 provides four 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a card slot of the switch models listed in Table 8-38.

**Table 8-38** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D00X4SA00 | • S5700-28C-HI<br>• S5700-28C-HI-24S |

Figure 8-18 shows the appearance of the ES5D00X4SA00.

**Figure 8-18** ES5D00X4SA00

## Functions

Table 8-39 describes of the ES5D00X4SA00.

**Table 8-39** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides four 10GE SFP+ optical ports respectively for data access and line-rate switching. |
| Enhanced service | The S5700-HI powers on or off the ES5D00X4SA00, detects whether the ES5D00X4SA00 is installed or not, and manages PHY chips and optical ports on the ES5D00X4SA00. They provide hardware-based OAM and BFD for the switch. |
| Hot swapping | Supported |
| Service ports for stacking | The service ports on the ES5D00X4SA00 can be used as stack ports on an S5700-HI switch.<br>**NOTE**<br>The S5700-HI has supported service port-based stacking since V200R003C00. |

## Indicators and Ports

Figure 8-19 shows indicators on the ES5D00X4SA00.

**Figure 8-19** Indicators on the ES5D00X4SA00

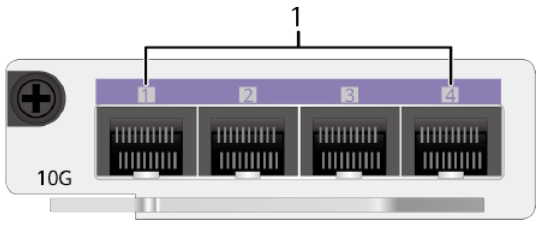



Table 8-40 shows indicators on the ES5D00X4SA00.

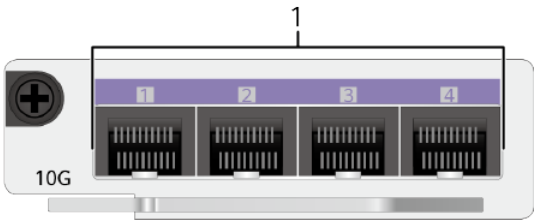
  

**Table 8-40** Indicator description

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

**Figure 8-20** shows ports on the ES5D00X4SA00.

**Figure 8-20** Ports on the ES5D00X4SA00




| |
| --- |
| 1. Four 10GE SFP+ optical ports |

### 10GE SFP+ optical port

The ES5D00X4SA00 provides four 10GE optical ports (GE/10GE auto-sensing) respectively to transmit and receive Ethernet service data at 1 Gbit/s or 10 Gbit/s. **Table 8-41** describes attributes of an SFP+ optical port.

NOTE

The 10GE SFP+ optical ports support 10GE SFP+ optical modules, GE optical modules, GE copper modules (in V200R002C00 and later versions, used with shielded twisted pair cables), SFP+ cables (in V200R002C00 and later versions), and AOC cables (in V200R003C00 and later versions).

**Table 8-41** Attributes of a 10GE SFP+ optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |

| Attribute | Description |
| --- | --- |
| Optical port attributes | Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, and **10.14 10GE-CWDM SFP+ Optical Modules**) |
| Standards compliance | IEEE 802.3ae |

## Technical Specifications

**Table 8-42** lists technical specifications of the ES5D00X4SA00.

**Table 8-42** Specifications of the ES5D00X4SA00

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 23 mm x 77 mm x 207 mm (0.9 in. x 3.0 in. x 8.1 in.)<br>• Weight: 0.5 kg (1.10 lb)<br>• Maximum power consumption: 10 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-43** provides the ES5D00X4SA00 ordering information.

**Table 8-43** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 4-port GE SFP or 10GE SFP+ optical interface card (front card) | ES5D00X4SA00 | 03021JYM |

# 8.9 ES5D00G4SC00 (4-Port GE SFP Front Optical Interface Card)

## Version Mapping

Table 8-44 lists the mapping between the ES5D00G4SC00 card and software versions.

**Table 8-44** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D00G4SC00<br>**NOTE**<br>After the **display device** command is executed, the PCB model of the card is displayed as ES510G4SC. | V100R006C01 to V200R005C02<br>**NOTE**<br>This module is not supported in V200R003C02 or V200R003C10. |

## Card Overview

The ES5D00G4SC00 provides four 1000M SFP optical ports for data access and line-rate switching for upstream services. It can be installed in a front card slot of the switch models listed in Table 8-45.

**Table 8-45** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D00G4SC00 | • S5700-28C-HI<br>• S5700-28C-HI-24S |

Figure 8-21 shows the appearance of the ES5D00G4SC00.

**Figure 8-21** ES5D00G4SC00

## Functions

Table 8-46 describes functions of the ES5D00G4SC00.

**Table 8-46** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides four 1000M SFP optical ports for data access and line-rate switching for upstream services. |
| Enhanced service | The S5700-HI powers on or off the ES5D00G4SC00, detects whether the ES5D00G4SC00 is installed or not, and manages PHY chips and optical ports on the ES5D00G4SC00. The ES5D00G4SC00 provides hardware-based OAM and BFD for the switch. |
| Hot swapping | Supported |

## Indicators and Ports

Figure 8-22 shows indicators on the ES5D00G4SC00.

**Figure 8-22** Indicators on the ES5D00G4SC00

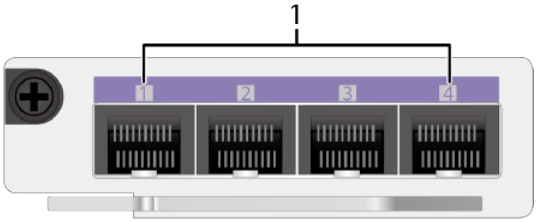



Table 8-47 describes indicator status on the ES5D00G4SC00.

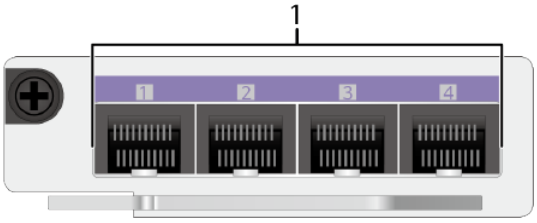
**Table 8-47** Indicator description

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

Figure 8-23 shows ports on the ES5D00G4SC00.

**Figure 8-23** Ports on the ES5D00G4SC00




| |
|---|
| 1. Four GE SFP optical ports |

### GE SFP optical port

The ES5D00G4SC00 provides four GE optical ports to transmit and receive Ethernet service data at 1000 Mbit/s. Table 8-48 describes attributes of an SFP optical port.

NOTE

The GE SFP ports support GE optical and copper modules (used with shielded Ethernet cables).

A GE SFP port can go Up after a GE copper module is installed. However, electrical attributes, such as the rate, duplex mode, auto-negotiation, MDI, flow control, and virtual cable test, are not configurable in this case.

**Table 8-48** Attributes of an SFP optical port

| Attribute | Description |
|---|---|
| Connector type | LC/PC |
| Optical port attributes | Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**) |
| Standards compliance | IEEE 802.3z |

## Technical Specifications

Table 8-49 lists technical specifications of the ES5D00G4SC00.

**Table 8-49** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 23 mm x 77 mm x 207 mm (0.9 in. x 3.0 in. x 8.1 in.)<br>• Weight: 0.3 kg (0.66 lb)<br>• Maximum power consumption: 4 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-50 provides the ES5D00G4SC00 ordering information.

**Table 8-50** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 4-port GE SFP optical interface card (front card) | ES5D00G4SC00 | 03021JYP |

# 8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card)

## Version Mapping

Table 8-51 lists the mapping between the ES5D21G08S00 card and software versions.

**Table 8-51** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21G08S00 | V200R001C00 to V200R005C02<br>**NOTE**<br>This module is not supported in V200R001C01, V200R003C02, V200R003C10, or V200R005C01. |

## Card Overview

The ES5D21G08S00 provides eight GE SFP optical ports for data access and line-rate switching.

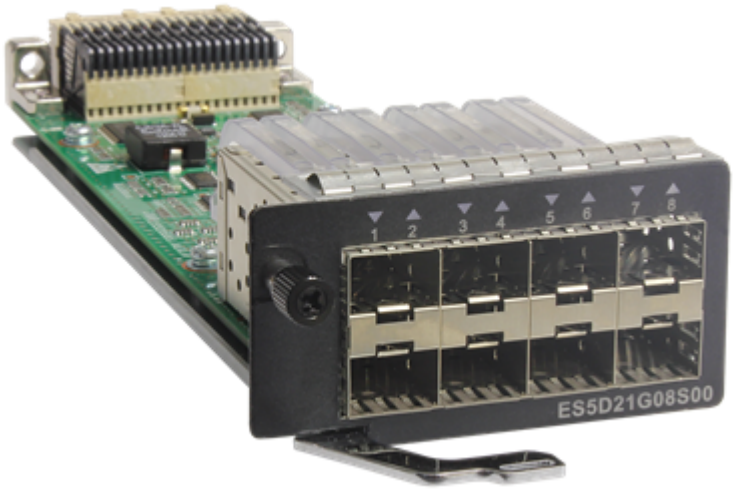
The ES5D21G08S00 can be installed in a rear card slot of the switch models listed in **Table 8-52**.

**Table 8-52** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21G08S00 | • S5710-52C-PWR-EI<br>• S5710-52C-PWR-EI-AC<br>• S5710-28C-PWR-EI-AC<br>• S5710-52C-EI<br>• S5710-28C-EI |

**Figure 8-24** shows the appearance of the ES5D21G08S00.

**Figure 8-24** ES5D21G08S00




## Functions

**Table 8-53** describes functions of the ES5D21G08S00.

**Table 8-53** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides eight 1000M SFP optical ports for data access and line-rate switching for GE services. |
| Hot swapping | Supported |

## Indicators and Ports

Figure 8-25 shows indicators on the ES5D21G08S00.

**Figure 8-25** Indicators on the ES5D21G08S00

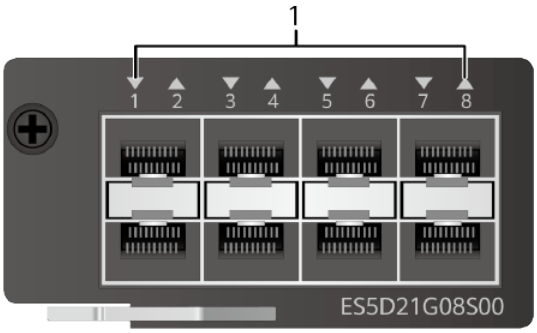


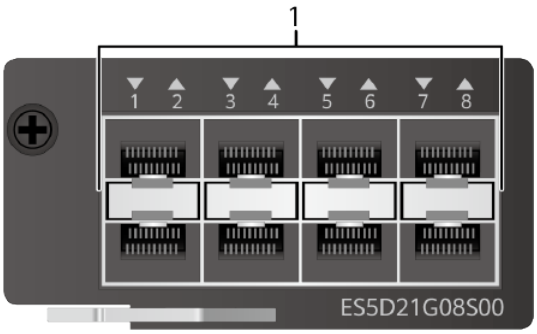

Table 8-54 describes indicator status on the ES5D21G08S00.

**Table 8-54** Indicator description

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

Figure 8-26 shows ports on the ES5D21G08S00.

**Figure 8-26** Ports on the ES5D21G08S00




| |
| --- |
| 1. Eight GE SFP optical ports |

#### GE SFP optical port

The ES5D21G08S00 provides eight GE optical ports to transmit and receive services at 1000 Mbit/s. **Table 8-55** describes attributes of an SFP optical port.

NOTE

The optical ports on the ES5D21G08S00 support GE optical modules.

**Table 8-55** Attributes of an SFP optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |
| Optical port attributes | Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, and **10.9 GE-DWDM eSFP Optical Modules**) |
| Standards compliance | IEEE 802.3z |

## Technical Specifications

**Table 8-56** lists technical specifications of the ES5D21G08S00.

**Table 8-56** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 42 mm x 77 mm x 207 mm (1.7 in. x 3.0 in. x 8.1 in.)<br>• Weight: 0.3 kg (0.66 lb)<br>• Maximum power consumption: 12.4 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-57** provides the ES5D21G08S00 ordering information.

**Table 8-57** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 8-port GE SFP optical interface card (rear card) | ES5D21G08S00 | 03021ESM |

# 8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card)

## Version Mapping

Table 8-58 lists the mapping between the ES5D21G08T00 card and software versions.

**Table 8-58** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21G08T00 | V200R001C00 to V200R005C02<br>**NOTE**<br>This module is not supported in V200R001C01, V200R003C02, V200R003C10, or V200R005C01. |

## Card Overview

The ES5D21G08T00 provides eight 10M/100M/1000M electrical ports for data access and line-rate switching.

The ES5D21G08T00 can be installed in a rear card slot of the switch models listed in Table 8-59.

**Table 8-59** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21G08T00 | • S5710-52C-PWR-EI<br>• S5710-52C-PWR-EI-AC<br>• S5710-28C-PWR-EI-AC<br>• S5710-52C-EI<br>• S5710-28C-EI |

Figure 8-27 shows the appearance of the ES5D21G08T00.

**Figure 8-27** ES5D21G08T00


## Functions

Table 8-60 describes functions of the ES5D21G08T00.

**Table 8-60** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides eight 10M/100M/1000M electrical ports for data access and line-rate switching. |
| Hot swapping | Supported |

## Indicators and Ports

Figure 8-28 shows indicators on the ES5D21G08T00.

**Figure 8-28** Indicators on the ES5D21G08T00

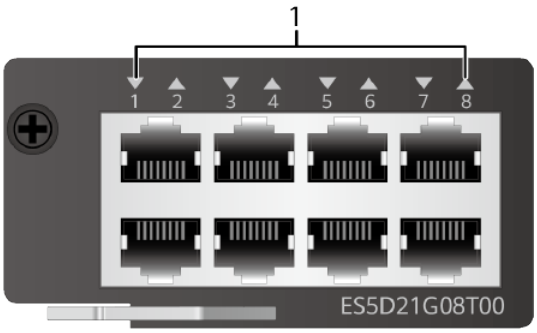


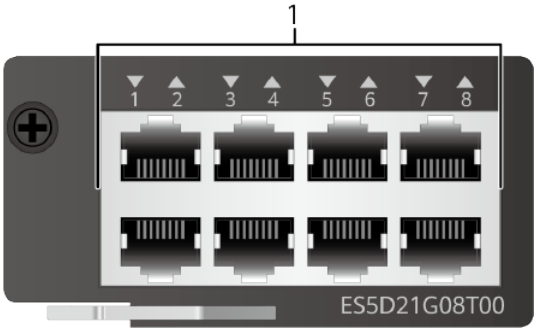
Table 8-61 describes indicator status on the ES5D21G08T00.

**Table 8-61** Indicator description

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

Figure 8-29 shows ports on the ES5D21G08T00.

**Figure 8-29** Ports on the ES5D21G08T00




| |
| --- |
| 1. Eight 10/100/1000BASE-T electrical ports |

### 10/100/1000BASE-T electrical port

The ES5D21G08T00 provides eight 10M/100M/1000M Ethernet electrical ports to transmit and receive Ethernet service data. The eight 10/100/1000BASE-T Ethernet electrical ports must be used with **9.4 Ethernet Cable**. **Table 8-62** describes attributes of the 10/100/1000BASE-T electrical port.

**Table 8-62** Attributes of the 10/100/1000BASE-T electrical port

| Attribute | Description |
| --- | --- |
| Connector type | RJ45 |
| Standards compliance | IEEE802.3, IEEE802.3u, and IEEE802.3ab |

## Technical Specifications

Table 8-63 lists technical specifications of the ES5D21G08T00.

**Table 8-63** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 42 mm x 77 mm x 207 mm (1.7 in. x 3.0 in. x 8.1 in.)<br>• Weight: 0.3 kg (0.66 lb)<br>• Maximum power consumption: 8.3 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-64 provides the ES5D21G08T00 ordering information.

**Table 8-64** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 8-port GE electrical interface card (rear card) | ES5D21G08T00 | 03021ESN |

# 8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)

## Version Mapping

Table 8-65 lists the mapping between the ES5D21X02S00 card and software versions.

**Table 8-65** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21X02S00 | V200R001C00 to V200R005C02<br>**NOTE**<br>This module is not supported in V200R001C01, V200R003C02, V200R003C10, or V200R005C01. |

## Card Overview

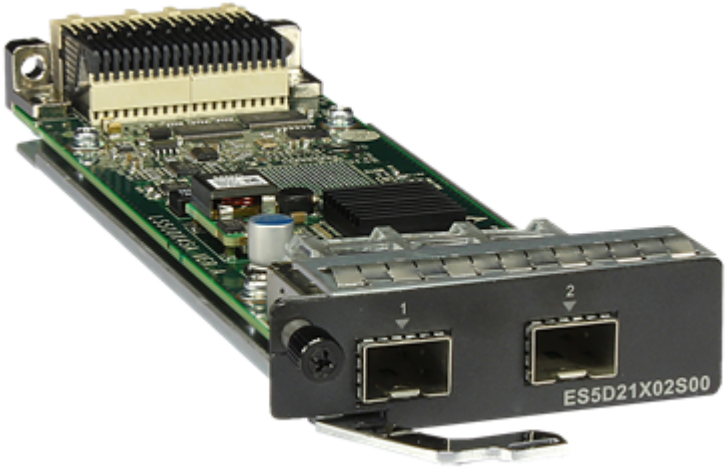
The ES5D21X02S00 provides two 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a card slot of the switch models listed in **Table 8-66**.

**Table 8-66** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21X02S00 | • S5710-52C-PWR-EI<br>• S5710-52C-PWR-EI-AC<br>• S5710-28C-PWR-EI-AC<br>• S5710-52C-EI<br>• S5710-28C-EI |

**Figure 8-30** shows the appearance of the ES5D21X02S00.

**Figure 8-30** ES5D21X02S00




## Functions

**Table 8-67** describes functions of the ES5D21X02S00.

**Table 8-67** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides two 10GE SFP+ optical ports for data access and line-rate switching. |
| Hot swapping | Supported |

| Function | Description |
| --- | --- |
| Service port supporting the stack function | The ES5D21X02S00 can be used on the stack port of the switch. |

## Indicators and Ports

Figure 8-31 shows indicators on the ES5D21X02S00.

**Figure 8-31** Indicators on the ES5D21X02S00

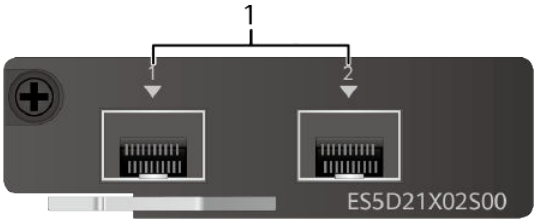


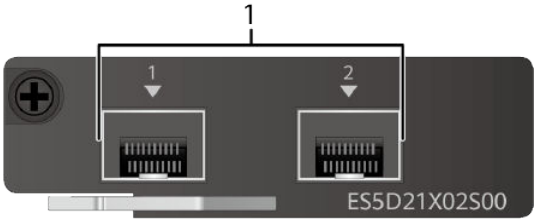

Table 8-68 describes indicators on the ES5D21X02S00.

**Table 8-68** Indicator description

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

Figure 8-32 shows ports on the ES5D21X02S00.

**Figure 8-32** Ports on the ES5D21X02S00




| |
| --- |
| 1. Two 10GE SFP+ optical ports |

#### 10GE SFP+ optical port

The ES5D21X02S00 provides two 10GE optical ports (auto-sensing GE ports) to transmit and receive Ethernet service data at 1 Gbit/s or 10 Gbit/s. **Table 8-69** describes attributes of an SFP+ optical port.

NOTE

The optical ports on the ES5D21X02S00 support 10GE SFP+ optical modules, GE SFP optical modules, GE copper modules (in V200R002C00 and later versions, used with shielded twisted pair cables), SFP+ copper cables (in V200R002C00 and later versions), and AOC cables (in V200R003C00 and later versions).

**Table 8-69** Attributes of a 10GE SFP+ optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |
| Optical port attributes | Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, and **10.14 10GE-CWDM SFP+ Optical Modules**) |
| Standards compliance | IEEE 802.3ae |

## Technical Specifications

**Table 8-70** lists technical specifications of the ES5D21X02S00.

**Table 8-70** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 23 mm x 77 mm x 207 mm (0.9 in. x 3.0 in. x 8.1 in.)<br>• Weight: 0.5 kg (1.10 lb)<br>• Maximum power consumption: 7 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-71** provides the ES5D21X02S00 ordering information.

**Table 8-71** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 2-port GE SFP or 10GE SFP+ optical interface card (rear card) | ES5D21X02S00 | 03021NTU |

# 8.13 ES5D21G16S00 (16-Port GE SFP Front Optical Interface Card)

## Version Mapping

Table 8-72 lists the mapping between the ES5D21G16S00 card and software versions.

**Table 8-72** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21G16S00 | V200R003C00 to V200R005C03<br>**NOTE**<br>This module is not supported in V200R003C02, V200R003C10, or V200R005C01. |

## Card Overview

The ES5D21G16S00 provides sixteen GE SFP optical ports for data access and line-rate switching.

The ES5D21G16S00 can be installed in the front card slot of the switch models listed in Table 8-73.

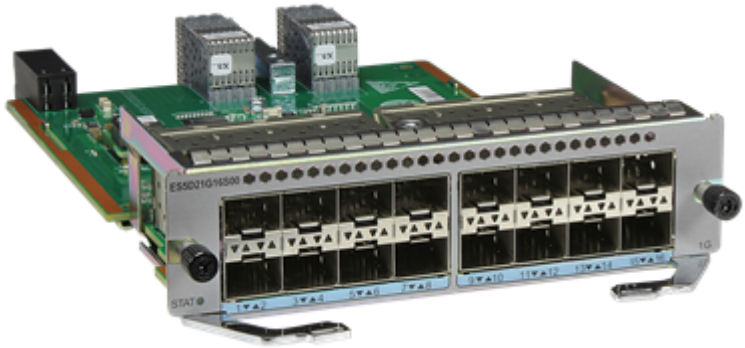
**Table 8-73** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21G16S00 | S5710-108C-PWR-HI |

Figure 8-33 shows the appearance of the ES5D21G16S00.

**Figure 8-33** ES5D21G16S00



## Functions

Table 8-74 describes functions of the ES5D21G16S00.

**Table 8-74** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides sixteen GE SFP optical ports for data access and line-rate switching. |
| Hot swapping | Supported |

## Indicators and Ports

Figure 8-34 shows indicators on the ES5D21G16S00.

**Figure 8-34** Indicators on the ES5D21G16S00

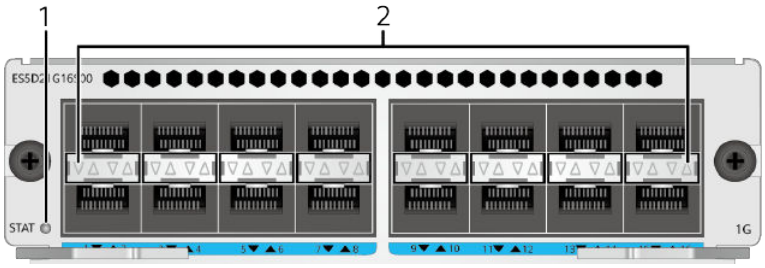



Table 8-75 describes indicator status on the ES5D21G16S00.

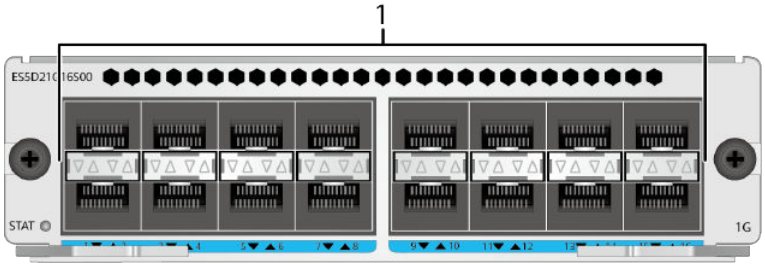
**Table 8-75** Description of indicators on the ES5D21G16S00

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Steady on: The system is starting.<br>• Blinking: The system is running properly. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| 2 | Two single-color indicators for each port<br>• Steady green: LINK indicator<br>• Blinking amber: ACT indicator<br>**NOTE**<br>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. | Green | • Steady on: The link on the port is connected.<br>• Off: The link on the port is disconnected. |
| | | Yellow | • Blinking: The port is transmitting or receiving data.<br>• Off: The port is not transmitting or receiving data. |

**Figure 8-35** shows the ports on the ES5D21G16S00.

**Figure 8-35** Ports on the ES5D21G16S00




| |
|---|
| 1. Sixteen GE SFP optical ports |

### GE SFP optical port

The ES5D21G16S00 provides sixteen GE SFP optical ports to transmit and receive service data at 1 Gbit/s. **Table 8-76** lists the attributes of a GE SFP optical port.

NOTE

The optical ports on the ES5D21G16S00 support GE optical modules.

**Table 8-76** Attributes of a GE SFP optical port

| Attribute | Description |
|---|---|
| Connector type | LC/PC |
| Optical port attributes | Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, and **10.9 GE-DWDM eSFP Optical Modules**) |
| Standards compliance | IEEE 802.3z |

## Technical Specifications

**Table 8-77** lists specifications of the ES5D21G16S00.

**Table 8-77** Specifications of the ES5D21G16S00

| Item | Description |
|---|---|
| Physical specifications | • Dimensions (H x W x D): 39.6 mm x 145.0 mm x 233 mm (1.6 in. x 5.7 in. x 9.2 in.)<br>• Weight: 0.7 kg (1.54 lb)<br>• Maximum power consumption: 11.7 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-78** provides ES5D21G16S00 ordering information.

**Table 8-78** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 16-port GE SFP optical interface card (front card) | ES5D21G16S00 | 03021PED |

# 8.14 ES5D21G16T00 (16-Port GE Front Electrical Interface Card)

## Version Mapping

**Table 8-79** lists the mapping between the ES5D21G16T00 card and software versions.

**Table 8-79** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21G16T00 | V200R003C00 to V200R005C03<br>**NOTE**<br>This module is not supported in V200R003C02, V200R003C10, or V200R005C01. |

## Card Overview

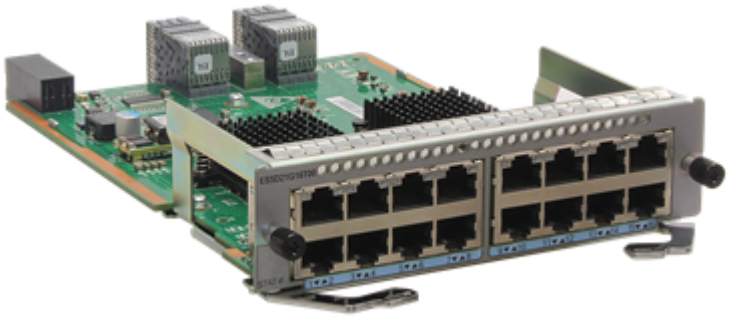
The ES5D21G16T00 provides sixteen GE electrical ports for data access and line-rate switching.

The ES5D21G16T00 can be installed in the front card slot of the S5710-108C-PWR-HI.

**Figure 8-36** shows the appearance of the ES5D21G16T00.

**Figure 8-36** ES5D21G16T00



## Functions

Table 8-80 describes functions of the ES5D21G16T00.

**Table 8-80** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides sixteen GE electrical ports for data access and line-rate switching. |
| Hot swapping | Supported |

## Indicators and Ports

Figure 8-37 shows indicators on the ES5D21G16T00.

**Figure 8-37** Indicators on the ES5D21G16T00

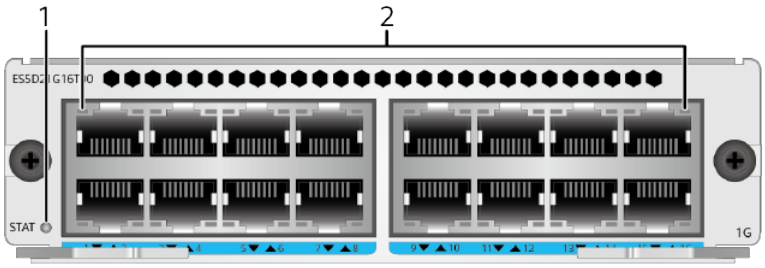



Table 8-81 describes indicator status on the ES5D21G16T00.

**Table 8-81** Description of indicators on the ES5D21G16T00

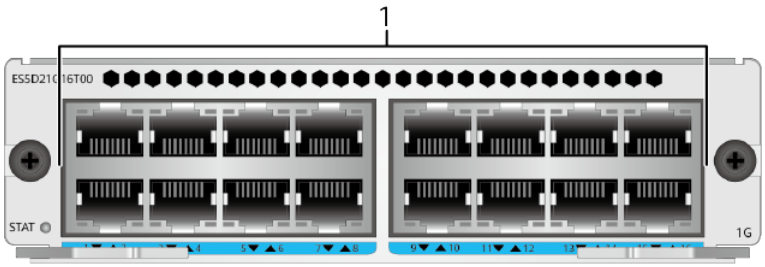
| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| | | Green | • Steady on: The system is starting.<br>• Blinking: The system is running properly. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| 2 | One single-color indicator for each port<br>**NOTE**<br>The indicator on the left indicates the port at the top, and the indicator on the right indicates the port at the bottom. | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is transmitting or receiving data. |
| | | Off | No link is established on the port. |

**Figure 8-38** shows the ports on the ES5D21G16T00.

**Figure 8-38** Ports on the ES5D21G16T00




| |
| --- |
| 1. Sixteen 10M/100M/1000M BASE-T ports |

### 10M/100M/1000M BASE-T port

The ES5D21G16T00 provides sixteen 10M/100M/1000M BASE-T ports to transmit and receive Ethernet service data. **Table 8-82** lists the attributes of a 10M/100M/1000M BASE-T port.

**Table 8-82** Attributes of a 10M/100M/1000M BASE-T port

| Attribute | Description |
| --- | --- |
| Connector type | RJ45 |
| Electrical port attributes | MDI/MDIX |
| Standards compliance | IEEE802.3, IEEE802.3u, IEEE802.3ab |

## Technical Specifications

Table 8-83 lists technical specifications of the ES5D21G16T00.

**Table 8-83** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 39.6 mm x 145.0 mm x 233 mm (1.6 in. x 5.7 in. x 9.2 in.)<br>• Weight: 0.7 kg (1.54 lb)<br>• Maximum power consumption: 9.5 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-84 provides ES5D21G16T00 ordering information.

**Table 8-84** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 16-port GE RJ45 interface card (front card) | ES5D21G16T00 | 03021NXB |

# 8.15 ES5D21Q02Q00 (2-Port 40 Gig QSFP+ Rear Interface Card)

## Version Mapping

Table 8-85 lists the mapping between the ES5D21Q02Q00 and software versions.

**Table 8-85** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21Q02Q00 | S5730-HI: V200R012C00 to V200R019C10 versions<br>S5731-H and S5731S-H: V200R019C00 and later versions<br>S5736-S: V200R020C00 and later versions<br>S5735S-H: V200R021C01 and later versions |

## Card Overview

The ES5D21Q02Q00 provides two 40GE QSFP+ optical ports for data access and line-rate switching.

The ES5D21Q02Q00 can be installed in a rear card slot of the switch models listed in **Table 8-86**.

**Table 8-86** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21Q02Q00 | • S5730-36C-HI<br>• S5730-36C-PWH-HI<br>• S5730-44C-HI (can be installed only in slot 1)<br>• S5730-44C-PWH-HI (can be installed only in slot 1)<br>• S5730-60C-HI<br>• S5730-60C-PWH-HI<br>• S5730-68C-HI (can be installed only in slot 1)<br>• S5730-68C-PWH-HI (can be installed only in slot 1)<br>• S5730-44C-HI-24S (can be installed only in slot 1)<br>• S5730-36C-HI-24S<br>• S5730-60C-HI-48S<br>• S5730-68C-HI-48S (can be installed only in slot 1)<br>• S5731-H24T4XC<br>• S5731-H24P4XC<br>• S5731-H48T4XC<br>• S5731-H48P4XC<br>• S5731S-H24T4XC-A<br>• S5731S-H48T4XC-A<br>• S5731-H24HB4XZ<br>• S5731-H48HB4XZ<br>• S5731S-H24HB4XZ-A<br>• S5731S-H48HB4XZ-A<br>• S5735S-H24S4XC-A<br>• S5736-S24UM4XC<br>• S5736-S24S4XC<br>• S5736-S48S4XC |

**Figure 8-39** ES5D21Q02Q00 (old)


**Figure 8-40** ES5D21Q02Q00 (new)


## Functions

Table 8-87 describes functions of the ES5D21Q02Q00.

**Table 8-87** Functions

| Function | Description |
| --- | --- |
| Basic functions | Provides two 40GE QSFP+ optical ports for data access and line-rate switching. Each 40GE port can be split into four 10GE ports. |
| Hot swapping | Supported |
| Service port stacking | Ports on the card can be used as stack ports.<br>**NOTE**<br>A 40GE port cannot be used as a stack port after it is split into four 10GE ports. |

## Indicators and Ports

**Figure 8-41** Indicators on the ES5D21Q02Q00 (old)

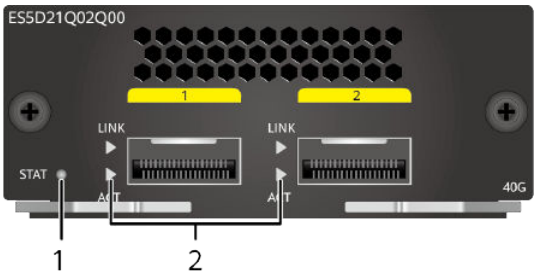



**Figure 8-42** Indicators on the ES5D21Q02Q00 (new)

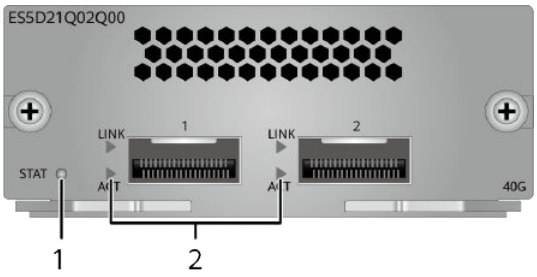



Table 8-88 describes indicators on the ES5D21Q02Q00.

**Table 8-88** Indicator description

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Fast blinking: The system is starting.<br>• Slow blinking: The system is running normally. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| 2 | LINK | Off | No link is established on the port. |
| | | Green | Steady on: A link is established on the port. |
| | ACT | Off | The port is not transmitting or receiving data. |
| | | Yellow | Blinking: The port is transmitting or receiving data. |

**Figure 8-43** Ports on the ES5D21Q02Q00 (old)

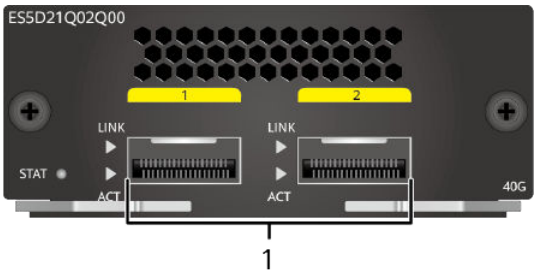
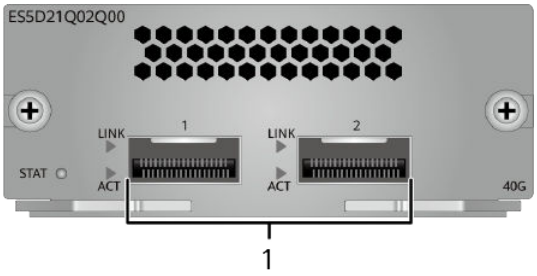



**Figure 8-44** Ports on the ES5D21Q02Q00 (new)




| |
|---|
| 1. Two 40GE QSFP+ optical ports |

### 40GE QSFP+ optical port

A 40GE QSFP+ optical port sends and receives service traffic at 40 Gbit/s and can be split into four 10GE ports. After a split, the 40GE QSFP+ optical port needs to be connected to a remote device using a 1-to-4 QSFP+ fiber (with matching optical modules), a 1-to-4 QSFP+ AOC cable, or a 1-to-4 QSFP+ copper cable. **Table 8-89** lists the attributes of a 40GE QSFP+ optical port.

NOTE

Both optical ports on the ES5D21Q02Q00 support only QSFP+ optical modules, QSFP+ AOC cables (10 m; QSFP+ to QSFP+ or QSFP+ to 4*SFP+), and QSFP+ copper cables (1 m, 3 m, and 5 m; QSFP+ to QSFP+ or QSFP+ to 4*SFP+).

**Table 8-89** Attributes of a QSFP+ optical port

| Attribute | Description |
|---|---|
| Connector type | LC/MPO |
| Optical attributes | Depend on the optical module used (see **10.17 40GE QSFP+ Optical Modules**) |

| Attribute | Description |
| --- | --- |
| Standards compliance | IEEE 802.3ba |

## Technical Specifications

Table 8-90 lists technical specifications of the ES5D21Q02Q00.

**Table 8-90** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.)<br>• Weight: 0.92 kg (2.03 lb)<br>• Maximum power consumption: 9 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-91 provides the ES5D21Q02Q00 ordering information.

**Table 8-91** Ordering information

| Card Description | Card Model | Part Number |
| --- | --- | --- |
| 2-port 40 Gig QSFP+ rear interface card | ES5D21Q02Q00 | 03024EHT |

# 8.16 ES5D21L04Q00 (4-Port 40GE QSFP+ Optical Interface Card)

## Version Mapping

Table 8-92 lists the mapping between the ES5D21L04Q00 card and software versions.

**Table 8-92** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21L04Q00 | V200R003C00 to V200R005C03<br>**NOTE**<br>This module is not supported in V200R003C02, V200R003C10, or V200R005C01. |

## Card Overview

The ES5D21L04Q00 provides four 40GE QSFP+ optical ports for data access and line-rate switching.

The ES5D21L04Q00 can be installed in the front card slot of the S5710-108C-PWR-HI.

**Figure 8-45** shows the appearance of the ES5D21L04Q00.

**Figure 8-45** ES5D21L04Q00


## Functions

**Table 8-93** describes functions of the ES5D21L04Q00.

**Table 8-93** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides four 40GE QSFP+ optical ports for data access and line-rate switching. |
| Hot swapping | Supported |

## Indicators and Ports

**Figure 8-46** shows indicators on the ES5D21L04Q00.

**Figure 8-46** Indicators on the ES5D21L04Q00

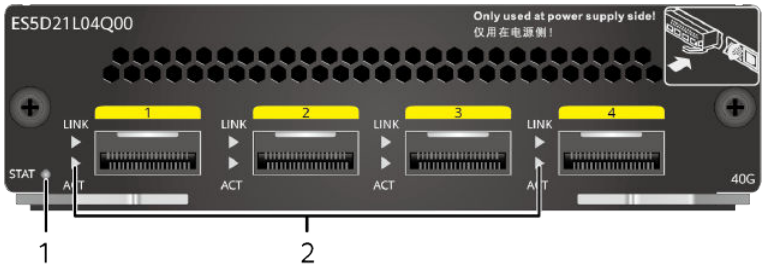


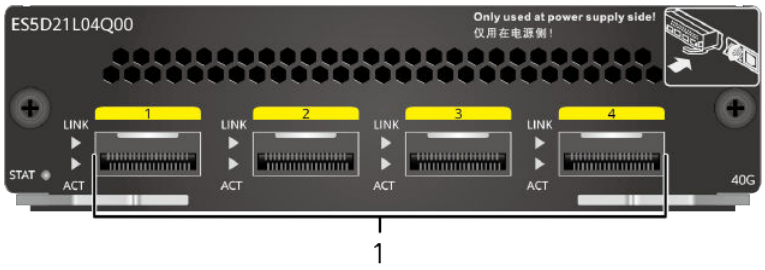

Table 8-94 describes indicator status on the ES5D21L04Q00.

**Table 8-94** Description of indicators on the ES5D21L04Q00

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Steady on: The system is starting.<br>• Blinking: The system is running properly. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| 2 | LINK | Green | Steady on: A link is established on the port. |
| | | Off | No link is established on the port. |
| | ACT | Yellow | Blinking: The port is transmitting or receiving data. |
| | | Off | No data is transmitting or receiving on the port. |

Figure 8-47 shows the ports on the ES5D21L04Q00.

**Figure 8-47** Ports on the ES5D21L04Q00



| |
|---|
| 1. Four 40GE QSFP+ optical ports |

#### 40GE QSFP+ optical port

The ES5D21L04Q00 provides four 40GE QSFP+ optical ports to transmit and receive service data at 40 Gbit/s. **Table 8-95** lists the attributes of a 40GE QSFP+ optical port.

NOTE

All the optical ports on the E5D21L04Q00 support only QSFP+ optical modules and QSFP+ copper cables.

**Table 8-95** Attributes of a 40GE QSFP+ optical port

| Attribute | Description |
|---|---|
| Connector type | LC/MPO |
| Optical port attributes | Depend on the optical module used (see **10.17 40GE QSFP+ Optical Modules**) |
| Standards compliance | IEEE 802.3ba |

## Technical Specifications

**Table 8-96** lists technical specifications of the ES5D21L04Q00.

**Table 8-96** Technical specifications

| Item | Description |
|---|---|
| Physical specifications | • Dimensions (H x W x D): 39.6 mm x 145.0 mm x 233 mm (1.6 in. x 5.7 in. x 9.2 in.)<br>• Weight: 0.7 kg (1.54 lb)<br>• Maximum power consumption: 25.7 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-97** provides ES5D21L04Q00 ordering information.

**Table 8-97** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 4-port 40GE QSFP+ optical interface card (rear card) | ES5D21L04Q00 | 03021NKW |

# 8.17 ES5D21Q04Q01 (4-Port 40 Gig QSFP+ Rear Interface Card)

## Version Mapping

Table 8-98 lists the mapping between the ES5D21Q04Q01 card and software versions.

**Table 8-98** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21Q04Q01 | S5730-SI and S5730S-EI: V200R011C10 to V200R019C10 versions<br>S5736-S: V200R020C00 and later versions<br>S5735S-H: V200R021C01 and later versions |

## Card Overview

The ES5D21Q04Q01 provides four 40GE QSFP+ optical ports for data access and line-rate switching.

The ES5D21Q04Q01 can be installed in a rear card slot of the switch models listed in Table 8-99.

**Table 8-99** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21Q04Q01 | • S5730-48C-SI-AC<br>• S5730-48C-PWR-SI-AC<br>• S5730S-48C-EI-AC<br>• S5730S-48C-PWR-EI<br>• S5730-68C-SI-AC<br>• S5730S-68C-EI-AC<br>• S5730-68C-PWR-SI-AC<br>• S5730-68C-PWR-SI<br>• S5730S-68C-PWR-EI<br>• S5735S-H24S4XC-A<br>• S5736-S24UM4XC<br>• S5736-S24S4XC<br>• S5736-S48S4XC |

**Figure 8-48** ES5D21Q04Q01 (old)

**Figure 8-49** ES5D21Q04Q01 (new)


## Functions

Table 8-100 describes functions of the card.

**Table 8-100** Functions

| Function | Description |
| --- | --- |
| Basic functions | Provides four 40GE QSFP+ optical ports for data access and line-rate switching. Each 40GE port can be split into four 10GE ports. |
| Hot swapping | Supported |
| Service port stacking | Ports on the card can be used as stack ports.<br>**NOTE**<br>A 40GE port cannot be used as a stack port after it is split into four 10GE ports. |

## Indicators and Ports

**Figure 8-50** Indicators on the ES5D21Q04Q01 (old)

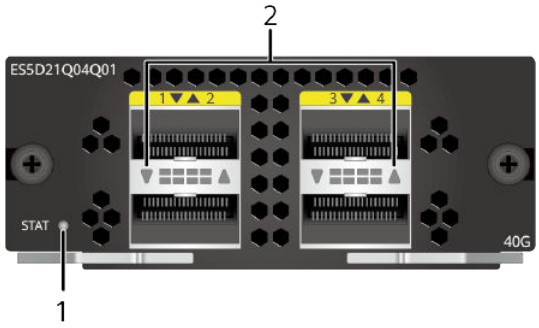


**Figure 8-51** Indicators on the ES5D21Q04Q01 (new)

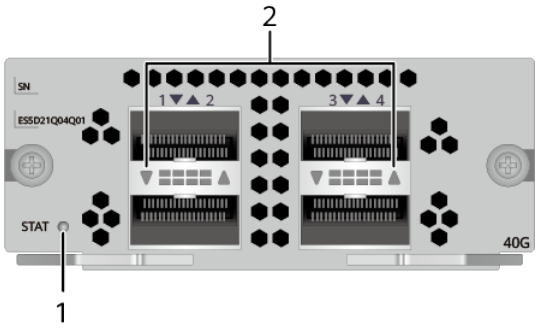



**Table 8-101** Description of indicators on the card

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Fast blinking: The system is starting.<br>• Slow blinking: The system is running normally. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| 2 | ACT/LINK | Green | • Steady on: A link has been established on the port.<br>• Blinking: The port is transmitting or receiving data. |
| | | Off | No link is established on the port. |

**Figure 8-52** Ports on the ES5D21Q04Q01 (old)

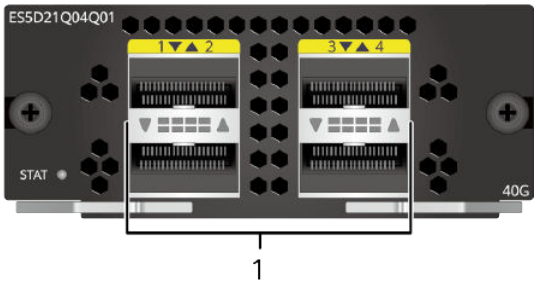
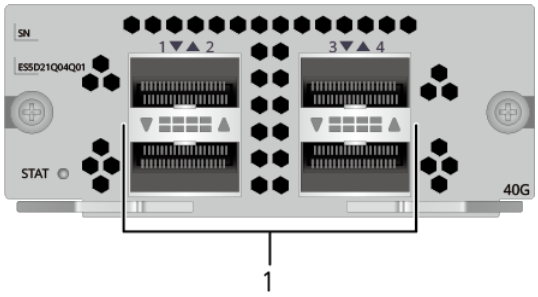


**Figure 8-53** Ports on the ES5D21Q04Q01 (new)




| |
|---|
| 1. Four 40GE QSFP+ optical ports |

### 40GE QSFP+ optical port

A 40GE QSFP+ optical port sends and receives service traffic at 40 Gbit/s and can be split into four 10GE ports. After a split, the 40GE QSFP+ optical port needs to be connected to a remote device using a 1-to-4 QSFP+ fiber (with matching optical modules), a 1-to-4 QSFP+ AOC cable (applicable in V200R009C00 and later versions), or a 1-to-4 QSFP+ copper cable. **Table 8-102** lists the attributes of a 40GE QSFP+ optical port.

NOTE

All the optical ports on the card support only QSFP+ optical modules, QSFP+ AOC cables (applicable in V200R009C00 and later versions; 10 m; QSFP+ to QSFP+ or QSFP+ to 4*SFP+), and QSFP+ copper cables (1 m, 3 m, and 5 m; QSFP+ to QSFP+ or QSFP+ to 4*SFP+).

**Table 8-102** Attributes of a QSFP+ optical port

| Attribute | Description |
|---|---|
| Connector type | LC/MPO |
| Optical port attributes | Depend on the optical module used (see **10.17 40GE QSFP+ Optical Modules**) |
| Standards compliance | IEEE 802.3ba |

## Technical Specifications

**Table 8-103** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.)<br>• Weight: 0.5 kg (1.10 lb)<br>• Maximum power consumption: 18.83 W |
| Environment specifications | • Operating temperature: 0°C to 45°C (32°F to 113°F)<br>• Relative humidity: 5% RH to 95% RH<br>• Storage temperature: -40°C to +70°C (-40°F to +158°F)<br>**NOTE**<br>When an ES5D21Q04Q01 card on the S5730-SI or S5730S-EI has a 40 km QSFP+ optical module installed, the operating temperature must be in the range of 0°C to 40°C. |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-104** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 4-port 40 Gig QSFP+ interface card | ES5D21Q04Q01 | 03022RRP |

# 8.18 ES5D21X04S00 (4-Port 10GE SFP+ Rear Optical Interface Card)

## Version Mapping

Table 8-105 lists the mapping between the ES5D21X04S00 card and software versions.

**Table 8-105** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21X04S00 | V200R003C00 to V200R005C03<br>**NOTE**<br>This module is not supported in V200R003C02, V200R003C10, or V200R005C01. |

## Card Overview

The ES5D21X04S00 provides four 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in the rear card slot of the S5710-108C-PWR-HI.

**Figure 8-54** shows the appearance of the ES5D21X04S00.

**Figure 8-54** ES5D21X04S00


## Functions

**Table 8-106** describes functions of the ES5D21X04S00.

**Table 8-106** Functions

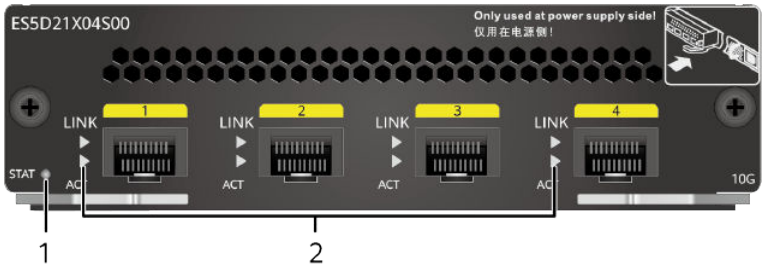
| Function | Description |
| --- | --- |
| Basic function | Provides four 10GE SFP+ optical ports for data access and line-rate switching. |
| Hot swapping | Supported |

## Indicators and Ports

**Figure 8-55** shows indicators on the ES5D21X04S00.

**Figure 8-55** Indicators on the ES5D21X04S00



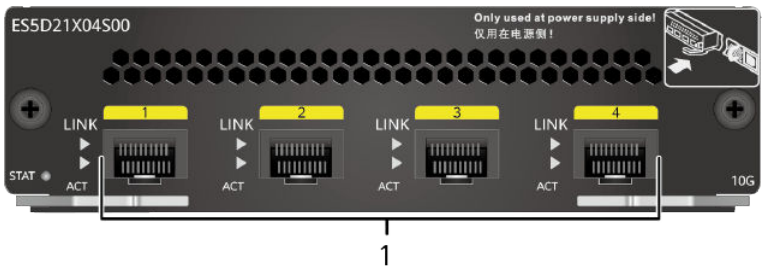

[Table 8-107](#) describes indicator status on the ES5D21X04S00.

**Table 8-107** Description of indicators on the ES5D21X04S00

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Steady on: The system is starting.<br>• Blinking: The system is running properly. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| 2 | LINK | Green | Steady on: A link is established on the port. |
| | | Off | No link is established on the port. |
| | ACT | Yellow | Blinking: The port is transmitting or receiving data. |
| | | Off | No data is transmitting or receiving on the port. |

[Figure 8-56](#) shows the ports on the ES5D21X04S00.

**Figure 8-56** Ports on the ES5D21X04S00



| |
|---|
| 1. Four 10GE SFP+ optical ports |

#### 10GE SFP+ optical port

The ES5D21X04S00 provides four 10GE SFP+ optical ports to transmit and receive service data at 10 Gbit/s. **Table 8-108** lists the attributes of a 10GE SFP+ optical port.

NOTE

The four optical ports on the ES5D21X04S00 support only 10GE SFP+ optical modules, SFP+ copper cables, and AOC cables.

**Table 8-108** Attributes of a 10GE SFP+ optical port

| Attribute | Description |
|---|---|
| Connector type | LC/PC |
| Optical port attributes | Depend on the optical module used (see **10.13 10GE SFP+ Optical Modules** and **10.14 10GE-CWDM SFP + Optical Modules**) |
| Standards compliance | IEEE 802.3ae |

## Technical Specifications

**Table 8-109** lists technical specifications of the ES5D21X04S00.

**Table 8-109** Technical specifications

| Item | Description |
|---|---|
| Physical specifications | • Dimensions (H x W x D): 39.6 mm x 145.0 mm x 233 mm (1.6 in. x 5.7 in. x 9.2 in.)<br>• Weight: 0.7 kg (1.54 lb)<br>• Maximum power consumption: 11.23 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-110** provides the ES5D21X04S00 ordering information.

**Table 8-110** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 4-port 10GE SFP+ optical interface card (rear card) | ES5D21X04S00 | 03021PHQ |

# 8.19 ES5D21X04S01 (4-Port 10 GE SFP+ Rear Interface Card)

## Version Mapping

Table 8-111 lists the mapping between the card and software versions.

**Table 8-111** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21X04S01 | V200R006C00 to V200R019C10 versions |

## Card Overview

The ES5D21X04S01 provides four 10GE SFP+ optical ports for data access and line-rate switching.

The ES5D21X04S01 can be installed in rear card slot 2 of the S5720-HI.

**Table 8-112** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21X04S01 | • S5720-32C-HI-24S-AC<br>• S5720-56C-HI-AC<br>• S5720-56C-PWR-HI-AC<br>• S5720-56C-PWR-HI-AC1 |

**Figure 8-57** ES5D21X04S01

## Functions

**Table 8-113** Functions

| Function | Item |
| --- | --- |
| Basic function | Provides four 10GE SFP+ optical ports for data access and line-rate switching. |
| Hot swapping | Supported |
| Service ports for stacking | The service ports on the card can be used as stack ports.<br>**NOTE**<br>The S5720-HI has supported service port-based stacking since V200R009C00. |

## Indicators and Ports

**Figure 8-58** Indicators on the ES5D21X04S01

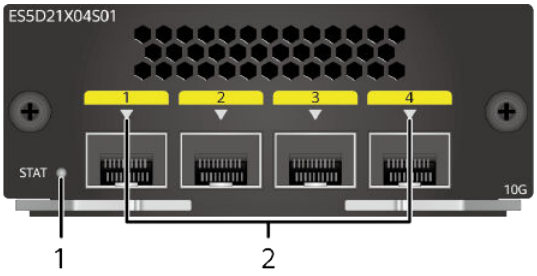


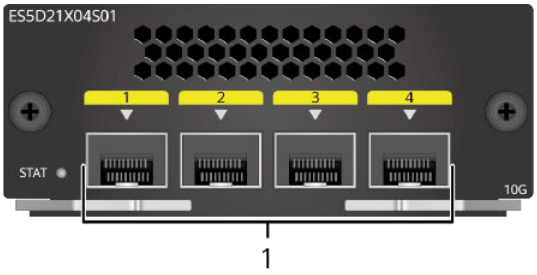

**Table 8-114** Description of indicators

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Fast blinking: The system is starting.<br>• Slow blinking: The system is running properly. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 2 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is transmitting or receiving data. |
| | | Off | No link is established on the port. |

**Figure 8-59** Ports on the ES5D21X04S01




| 1. Four 10GE SFP+ optical ports |
| --- |

### 10GE SFP+ optical port

The card provides four 10GE SFP+ optical ports to transmit and receive service data at 10 Gbit/s. **Table 8-115** lists the attributes of a 10GE SFP+ optical port.

NOTE

When the card is installed on the S5720-HI, the four 10GE SFP+ optical ports support only 10GE SFP+ optical modules, SFP+ cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).

**Table 8-115** Attributes of a 10GE SFP+ optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |
| Optical port attributes | Depend on the optical module used (see **10.13 10GE SFP+ Optical Modules**, **10.14 10GE-CWDM SFP+ Optical Modules**, and **10.15 10GE-DWDM SFP+ Optical Modules**) |
| Standards compliance | IEEE 802.3ae |

## Technical Specifications

**Table 8-116** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.)<br>• Weight: 0.76 kg (1.68 lb)<br>• Maximum power consumption: 9.95 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-117 provides ordering information of the card.

**Table 8-117** Ordering information

| Card Description | Card Name | Part number |
| --- | --- | --- |
| 4-port 10 GE SFP+ rear interface card | ES5D21X04S01 | 03022MDR |

# 8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series)

## Version Mapping

Table 8-118 lists the mapping between the ES5D21X02S01 card and software versions.

**Table 8-118** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21X02S01 | V200R007C00 to V200R019C10 versions<br>**NOTE**<br>This module is not supported in V200R007C10. |

## Card Overview

The ES5D21X02S01 provides two 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a rear card slot of the switch models listed in Table 8-119.

**Table 8-119** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21X02S01 | S5720-C-EI and S5720-PC-EI series |

Figure 8-60 shows the appearance of the ES5D21X02S01.

**Figure 8-60** ES5D21X02S01


## Functions

Table 8-120 describes functions of the ES5D21X02S01.

**Table 8-120** Functions

| Function | Item |
| --- | --- |
| Basic function | Provides two 10GE SFP+ optical ports for data access and line-rate switching. |
| Hot swapping | Supported |
| Service port stacking | Ports on the card can be used as stack ports. |

## Indicators and Ports

Figure 8-61 shows indicators on the ES5D21X02S01.

**Figure 8-61** Indicators on the ES5D21X02S01

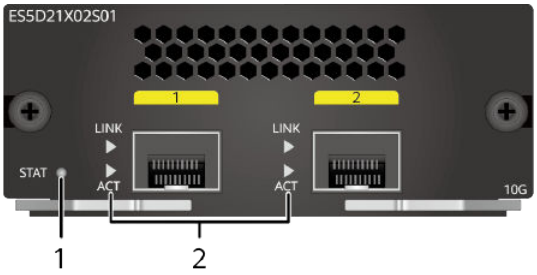


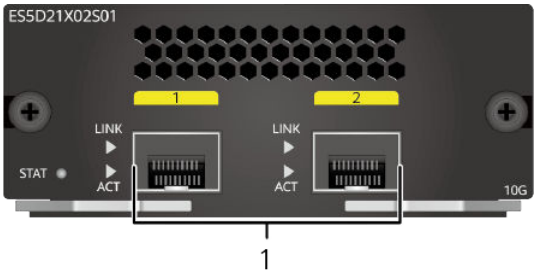

**Table 8-121** describes indicators on the ES5D21X02S01.

**Table 8-121** Description of indicators on the ES5D21X02S01

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Fast blinking: The system is starting.<br>• Slow blinking: The system is running normally. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| 2 | LINK | Off | No link is established on the port. |
| | | Green | Steady on: A link is established on the port. |
| | ACT | Off | The port is not transmitting or receiving data. |
| | | Yellow | Blinking: The port is transmitting or receiving data. |

**Figure 8-62** shows the ports on the ES5D21X02S01.

**Figure 8-62** Ports on the ES5D21X02S01



| |
|---|
| 1. Two 10GE SFP+ optical ports |

**10GE SFP+ optical port**

10GE SFP+ optical ports on the ES5D21X02S01 can only transmit and receive service data at 10 Gbit/s. **Table 8-122** lists the attributes of a 10GE SFP+ optical port.

NOTE

The two optical ports on the ES5D21X02S01 support only 10GE SFP+ optical modules, SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).

**Table 8-122** Attributes of a 10GE SFP+ optical port

| Attribute | Item |
|---|---|
| Connector type | LC/PC |
| Optical port attributes | Depend on the optical module used (see **10.13 10GE SFP+ Optical Modules** , **10.14 10GE-CWDM SFP+ Optical Modules**, and **10.15 10GE-DWDM SFP+ Optical Modules**) |
| Standards compliance | IEEE 802.3ae |

## Technical Specifications

**Table 8-123** lists technical specifications of the ES5D21X02S01.

**Table 8-123** Technical specifications

| Item | Description |
|---|---|
| Physical specifications | • Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.)<br>• Weight: 0.78 kg (1.72 lb)<br>• Maximum power consumption: 8 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-124 provides the ES5D21X02S01 ordering information.

**Table 8-124** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 2-port 10 Gig SFP+ interface card, used in S5720-EI series (rear card) | ES5D21X02S01 | 03022RMH |

# 8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series)

## Version Mapping

Table 8-125 lists the mapping between the ES5D21X02T01 card and software versions.

**Table 8-125** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21X02T01 | V200R007C00 to V200R019C10 versions<br>**NOTE**<br>This module is not supported in V200R007C10. |

## Card Overview

The ES5D21X02T01 provides two 10GBASE-T RJ45 electrical ports for data access and line-rate switching. It can be installed in a rear card slot of the switch models listed in Table 8-126.

**Table 8-126** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21X02T01 | S5720-C-EI and S5720-PC-EI series |

Figure 8-63 shows the appearance of the ES5D21X02T01.

**Figure 8-63** ES5D21X02T01


## Functions

Table 8-127 describes functions of the ES5D21X02T01.

**Table 8-127** Functions

| Function | Item |
| --- | --- |
| Basic function | Provides two 10GE RJ45 electrical ports for data access and line-rate switching. |
| Hot swapping | Supported |
| Service port stacking | Ports on the card can be used as stack ports. |

## Indicators and Ports

Figure 8-64 shows indicators on the ES5D21X02T01.

**Figure 8-64** Indicators on the ES5D21X02T01

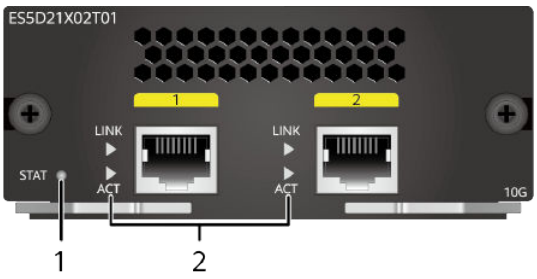



Table 8-128 describes indicators on the ES5D21X02T01.

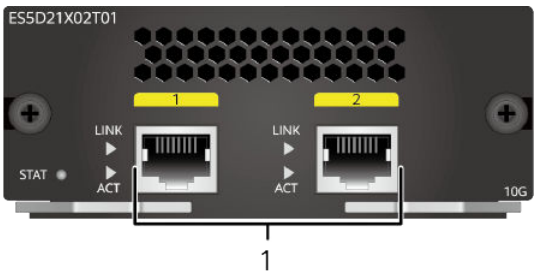
  

**Table 8-128** Description of indicators on the ES5D21X02T01

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Fast blinking: The system is starting.<br>• Slow blinking: The system is running normally. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| 2 | LINK | Off | No link is established on the port. |
| | | Green | Steady on: A link is established on the port. |
| | ACT | Off | The port is not transmitting or receiving data. |
| | | Yellow | Blinking: The port is transmitting or receiving data. |

**Figure 8-65** shows the ports on the ES5D21X02T01.

**Figure 8-65** Ports on the ES5D21X02T01




| |
| --- |
| 1. Two 10GBASE-T RJ45 electrical ports |

### 10GBASE-T RJ45 electrical port

The two 10GBASE-T RJ45 electrical ports on the ES5D21X02T01 can only transmit services at 10 Gbit/s and cannot work at 100 Mbit/s or 1000 Mbit/s. Category 6A shielded twisted pair (STP) cables are recommended for the ports. **Table 8-129** lists the attributes of a 10GBASE-T RJ45 electrical port.

**Table 8-129** Attributes of a 10GBASE-T RJ45 electrical port

| Attribute | Item |
| --- | --- |
| Connector type | RJ45 |
| Working Mode | 10 Gbit/s |
| Standards compliance | IEEE802.3an, IEEE802.3az |

Table 8-130 lists the maximum transmission distances of different cables on 10GBASE-T RJ45 ports.

**Table 8-130** Maximum transmission distances of different cables on 10GBASE-T RJ45 ports

| Cable Type (6-a-1 Bundle) | 10GBASE-T RJ45 Port |
| --- | --- |
| Cat6A U/UTP | Not supported |
| Cat6A F/UTP | 100 m |
| Cat6A STP | 100 m |
| Cat7 | 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.

## Technical Specifications

Table 8-131 lists technical specifications of the ES5D21X02T01.

**Table 8-131** Technical Specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.57 in. x 3.9 in. x 8.2 in.)<br>• Weight: 0.78 kg (1.72 lb)<br>• Maximum power consumption: 16 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-132 provides the ES5D21X02T01 ordering information.

**Table 8-132** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| 2-port 10GBASE-T RJ45 interface card, used in S5720-EI series (rear card) | ES5D21X02T01 | 03022RMK |

# 8.22 ES5D21X08S00 (8-Port 10GE SFP+ Rear Optical Interface Card)

## Version Mapping

Table 8-133 lists the mapping between the ES5D21X08S00 card and software versions.

**Table 8-133** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21X08S00 | S5730-HI: V200R012C00 to V200R019C10 versions |

## Card Overview

The ES5D21X08S00 provides eight 10GE SFP+ optical ports for data access and line-rate switching.

The ES5D21X08S00 can be installed in a rear card slot of the switch models listed in Table 8-134.

**Table 8-134** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21X08S00 | • S5730-36C-HI<br>• S5730-36C-PWH-HI<br>• S5730-44C-HI (can be installed only in slot 1)<br>• S5730-44C-PWH-HI (can be installed only in slot 1)<br>• S5730-60C-HI<br>• S5730-60C-PWH-HI<br>• S5730-68C-HI (can be installed only in slot 1)<br>• S5730-68C-PWH-HI (can be installed only in slot 1)<br>• S5730-44C-HI-24S (can be installed only in slot 1)<br>• S5730-36C-HI-24S<br>• S5730-60C-HI-48S<br>• S5730-68C-HI-48S (can be installed only in slot 1) |

**Figure 8-66** ES5D21X08S00


## Functions

**Table 8-135** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides eight 10GE SFP+ optical ports for data access and line-rate switching. |

| Function | Description |
| --- | --- |
| Hot swapping | Supported |
| Service ports for stacking | The service ports on the card can be used as stack ports.<br>**NOTE**<br>Only supported on the S5730-HI. |

## Indicators and Ports

**Figure 8-67** Indicators on the ES5D21X08S00

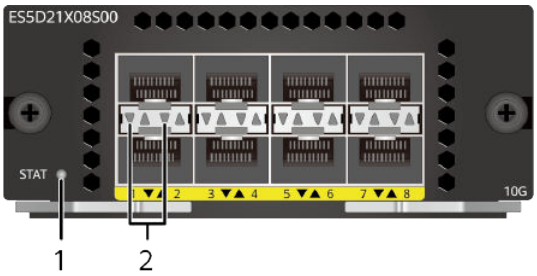


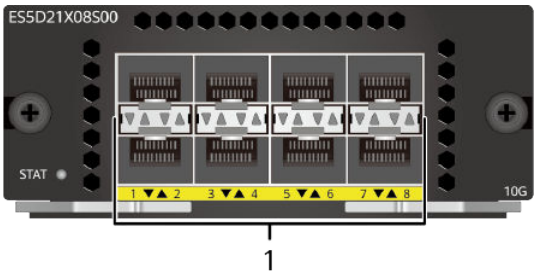

**Table 8-136** Indicator description

| No. | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Fast blinking: The system is starting.<br>• Slow blinking: The system is running properly. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| 2 | Two single-color indicators for each port<br>• Steady green: LINK indicator | Green | • Steady on: A link is established on the port.<br>• Off: No link is established on the port. |

| No. | Indicator | Color | Description |
| --- | --- | --- | --- |
| | • Blinking yellow: ACT indicator<br>**NOTE**<br>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. | Yellow | • Blinking: The port is transmitting or receiving data.<br>• Off: No data is transmitting or receiving on the port. |

**Figure 8-68** Ports on the ES5D21X08S00




| |
| --- |
| 1. Eight 10GE SFP+ optical ports |

### 10GE SFP+ optical port

The ES5D21X08S00 provides 10GE SFP+ optical ports to transmit and receive service data at 1 Gbit/s or 10 Gbit/s. **Table 8-137** lists the attributes of a 10GE SFP + optical port.

NOTE

When the card is installed on the S5730-60C-HI, S5730-60C-PWH-HI, S5730-68C-HI, S5730-68C-PWH-HI, S5730-60C-HI-48S, or S5730-68C-HI-48S, ports 1 to 4 on the card only support the rate of 10 Gbit/s, and ports 5 to 8 support 1 Gbit/s and 10 Gbit/s.

When the card is installed on the S5730-36C-HI, S5730-36C-PWH-HI, S5730-44C-HI, S5730-44C-PWH-HI, S5730-36C-HI-24S, or S5730-44C-HI-24S, all ports on the card support 1 Gbit/s and 10 Gbit/s.

The 10GE SFP+ optical ports support GE optical modules (a maximum transmission distance of 40 km), GE copper modules, 10GE SFP+ optical modules (a maximum transmission distance of 10 km), SFP+ cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).

**Table 8-137** Attributes of a 10GE SFP+ optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |
| Optical port attributes | Depend on the optical module. For details, see **10.5 GE eSFP Optical Modules** (a maximum transmission distance of 40 km), **10.10 GE SFP Copper Modules**, and **10.13 10GE SFP + Optical Modules** (a maximum transmission distance of 10 km). |
| Standards compliance | IEEE 802.3ae |

## Technical Specifications

**Table 8-138** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.57 in. x 3.94 in. x 8.19 in.)<br>• Weight: 0.26 kg (0.57 lb)<br>• Maximum power consumption: 35.8 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-139** provides the ES5D21X08S00 ordering information.

**Table 8-139** Ordering information

| Card Description | Card Model | Part Number |
| --- | --- | --- |
| 8-port 10GE SFP+ rear optical interface card | ES5D21X08S00 | 98010738 |

# 8.23 ES5D21X08T00 (8-Port 10GBASE-T RJ45 Rear Interface Card)

## Version Mapping

Table 8-140 lists the mapping between the ES5D21X08T00 and software versions.

**Table 8-140** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21X08T00 | S5730-HI: V200R012C00 to V200R019C10 versions<br>S5731-H and S5731S-H: V200R019C00 and later versions |

## Card Overview

The ES5D21X08T00 provides eight 10GBASE-T RJ45 ports for data access and line-rate switching. It can be installed in a rear card slot of the switch models listed in Table 8-141.

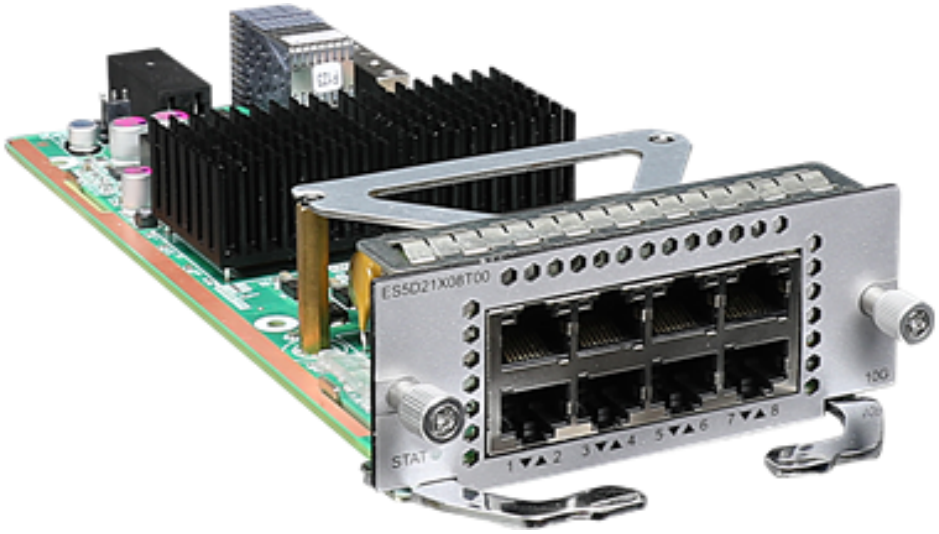
**Table 8-141** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21X08T00 | • S5730-36C-HI<br>• S5730-44C-HI (can be installed only in slot 1)<br>• S5730-36C-PWH-HI<br>• S5730-44C-PWH-HI (can be installed only in slot 1)<br>• S5730-60C-HI<br>• S5730-68C-HI (can be installed only in slot 1)<br>• S5730-60C-PWH-HI<br>• S5730-68C-PWH-HI (can be installed only in slot 1)<br>• S5730-44C-HI-24S (can be installed only in slot 1)<br>• S5730-36C-HI-24S<br>• S5730-60C-HI-48S<br>• S5730-68C-HI-48S (can be installed only in slot 1)<br>• S5731-H24T4XC<br>• S5731-H24P4XC<br>• S5731-H48T4XC<br>• S5731-H48P4XC<br>• S5731S-H24T4XC-A<br>• S5731S-H48T4XC-A<br>• S5731-H24HB4XZ<br>• S5731-H48HB4XZ<br>• S5731S-H24HB4XZ-A<br>• S5731S-H48HB4XZ-A |

**Figure 8-69** ES5D21X08T00 (old)

**Figure 8-70** ES5D21X08T00 (new)




## Functions

Table 8-142 describes functions of the ES5D21X08T00.

**Table 8-142** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides eight 10GE RJ45 ports for data access and line-rate switching. |
| Hot swapping | Supported |
| Service ports for stacking | The service ports on the card can be used as stack ports. |

## Indicators and Ports

**Figure 8-71** Indicators on the ES5D21X08T00 (old)

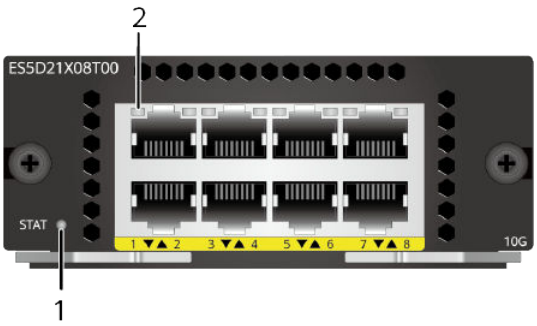


**Figure 8-72** Indicators on the ES5D21X08T00 (new)

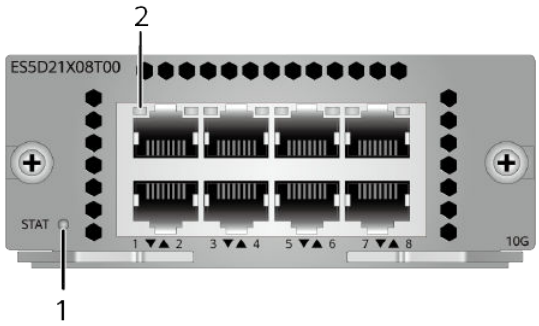



**Table 8-143** shows indicators on the ES5D21X08T00.

**Table 8-143** Indicator description

| No. | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Fast blinking: The system is starting.<br>• Slow blinking: The system is running properly. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| 2 | ACT/LINK | Off | No link is established on the port. |
| | | Green | Steady on: A link has been established on the port.<br>Blinking: The port is transmitting or receiving data. |

**Figure 8-73** Ports on the ES5D21X08T00 (old)

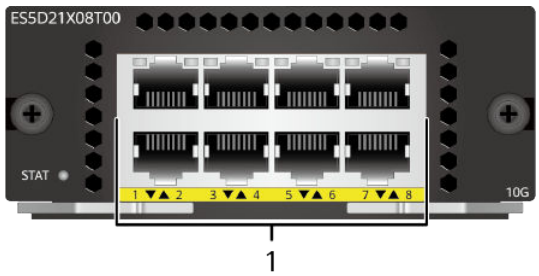
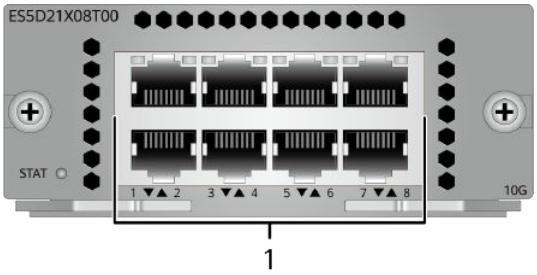


**Figure 8-74** Ports on the ES5D21X08T00 (new)




| |
|---|
| 1. Eight 10GBASE-T RJ45 ports |

### 10GBASE-T RJ45 port

The ES5D21X08T00 provides eight 10GBASE-T RJ-45 electrical ports. The first four electrical ports support only 10 Gbit/s. The last four electrical ports support only 10 Gbit/s in versions earlier than V200R019C00, and also support 100 Mbit/s and 1000 Mbit/s in auto-negotiation mode in V200R019C00 and later versions. When the ports work at 10 Gbit/s, Category 6A shielded Ethernet cables are recommended. **Table 8-144** lists the attributes of a 10GBASE-T RJ45 port.

**Table 8-144** Attributes of a 10GBASE-T RJ45 port

| Attribute | Item |
|---|---|
| Connector type | RJ45 |
| Standards compliance | IEEE802.3an, IEEE802.3az |

**Table 8-145** lists the maximum transmission distances of different cables on 10GBASE-T RJ45 ports.

**Table 8-145** Maximum transmission distances of different cables on 10GBASE-T RJ45 ports

| Cable Type (6-a-1 Bundle) | 10GBASE-T RJ45 Port |
|---|---|
| Cat6A U/UTP | Not supported |
| Cat6A F/UTP | 100 m |
| Cat6A STP | 100 m |
| Cat7 | 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 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, 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.

## Technical Specifications

Table 8-146 lists technical specifications of the ES5D21X08T00.

**Table 8-146** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.)<br>• Weight: 0.26 kg (0.57 lb)<br>• Maximum power consumption: 22.1 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-147 provides the ES5D21X08T00 ordering information.

**Table 8-147** Ordering information

| Card Description | Card Model | Part Number |
| --- | --- | --- |
| 8-port 10GBASE-T RJ45 rear interface card | ES5D21X08T00 | 98010736 |

# 8.24 S7X08000 (02312URW/02312URW-002: 8-Port 10GE SFP+ or 2-Port 25GE SFP28 Optical Interface Card (Only Ports 1 and 2 Support 25GE))

## Version Mapping

Table 8-148 lists the mapping between the S7X08000 card and software versions.

**Table 8-148** Version mapping

| Card Model | Part Number | Software Version |
| --- | --- | --- |
| S7X08000 | 02312URW | S5731-H, S5731S-H, and S5732-H: V200R019C10 and later versions<br>S5735S-H: V200R021C01 and later versions<br>S5736-S: V200R020C10 and later versions |
| | 02312URW-002 | S5731-H and S5731S-H: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch. After installing the patch, remove and insert the card again to register the card.)<br>S5732-H: V200R021C10SPC600 and later versions (If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch. After installing the patch, remove and insert the card again to register the card.)<br>S5735S-H: V200R021C10SPC600 and later versions<br>S5736-S: V200R021C10SPC600 and later versions (If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch. After installing the patch, remove and insert the card again to register the card.)<br>**NOTE**<br>If this card is used on the S5731-H24HB4XZ, S5731-H48HB4XZ, S5731S-H24HB4XZ-A, S5731S-H48HB4XZ-A, or S5732-H48XUM2CC, the initial version is V200R021C10SPC600 and does not support patches with earlier versions. |

## Card Overview

The S7X08000 provides eight 10GE SFP+ optical ports for data access and line-rate switching by default. The port mode can be changed. After the change, the first two ports are 25GE ports, and the last six ports become unavailable.

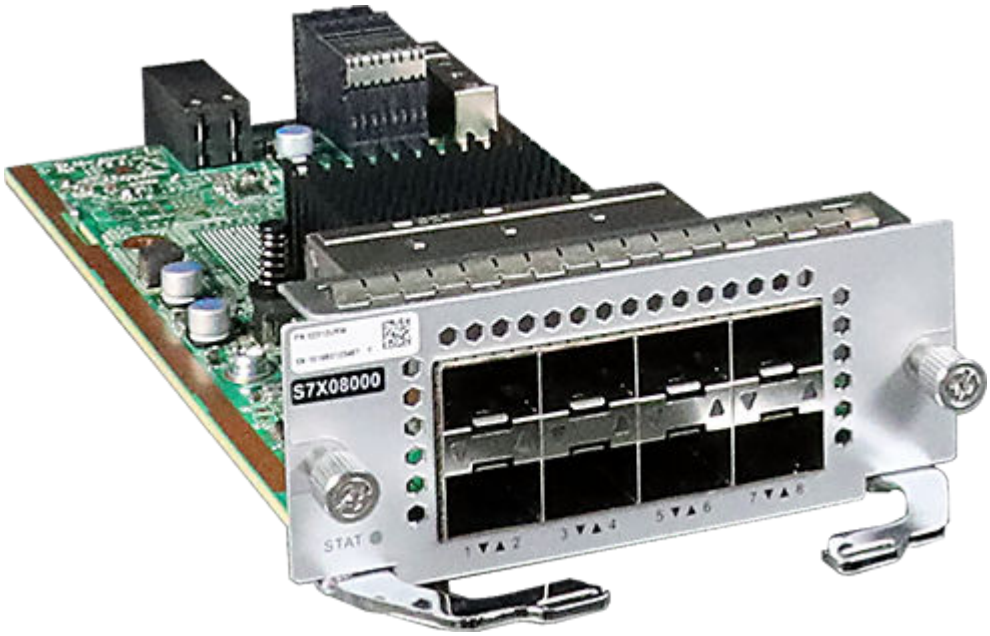
The S7X08000 can be installed in a rear card slot of the switch models listed in **Table 8-149**.

**Table 8-149** Applicable switch models

| Card | Switch Model |
| --- | --- |
| S7X08000 | • S5731-H24T4XC<br>• S5731-H24P4XC<br>• S5731-H48T4XC<br>• S5731-H48P4XC<br>• S5731S-H24T4XC-A<br>• S5731S-H48T4XC-A<br>• S5731-H24HB4XZ<br>• S5731-H48HB4XZ<br>• S5731S-H24HB4XZ-A<br>• S5731S-H48HB4XZ-A<br>• S5732-H24UM2CC<br>• S5732-H48UM2CC<br>• S5732-H48XUM2CC<br>• S5735S-H24S4XC-A<br>• S5736-S24UM4XC<br>• S5736-S24S4XC<br>• S5736-S48S4XC |

**Figure 8-75** S7X08000



## Functions

**Table 8-150** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides eight 10GE SFP+ optical ports for data access and line-rate switching by default. You can run the **set card port-config-mode 25g-port enable** command to change the port mode. After this command is configured, the first two ports are 25GE ports and the last six ports become unavailable. |
| Hot swapping | Supported |
| Service ports for stacking | The service ports on the card can be used as stack ports. |

## Indicators and Ports

**Figure 8-76** Indicators on the S7X08000

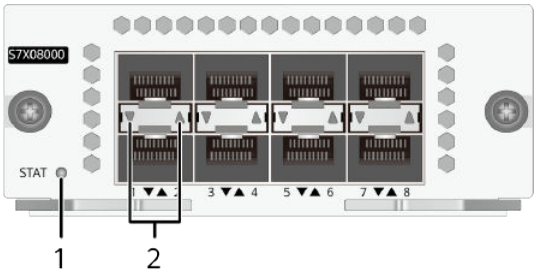


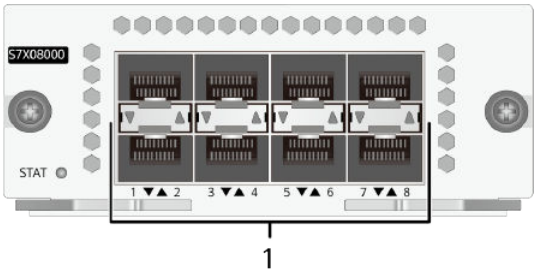

**Table 8-151** Indicator description

| No. | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Fast blinking: The system is starting.<br>• Slow blinking: The system is running properly. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |

| No. | Indicator | Color | Description |
| --- | --- | --- | --- |
| 2 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

**Figure 8-77** Ports on the S7X08000




1. Eight 10GE SFP+ optical ports, supporting 10GE/GE

You can run the **set card port-config-mode 25g-port enable** command to change the port mode. After this command is configured, the first two ports are 25GE SFP28 optical ports, and the last six ports become unavailable.

### 10GE SFP+ optical port

The S7X08000 provides 10GE SFP+ optical ports to transmit and receive service data at 10 Gbit/s or 1 Gbit/s. **Table 8-152** lists the attributes of a 10GE SFP+ optical port.

NOTE

When the card is installed on the S5731-H, S5731S-H, and S5732-H, the 10GE SFP+ optical ports support GE optical modules, GE copper modules, 10GE SFP+ optical modules, SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), AOC cables (3 m and 10 m; SFP+ to SFP+), and SFP+ dedicated stack cables (supported only on the S5732-H24UM2CC and S5732-H48UM2CC).

When the card is installed on the S5735S-H and S5736-S, the 10GE SFP+ optical ports support GE optical modules, GE copper modules, 10GE SFP+ optical modules (the maximum transmission distance cannot exceed 10 km), SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).

**Table 8-152** Attributes of a 10GE SFP+ optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |

| Attribute | Description |
| --- | --- |
| Optical port attributes | Depend on the optical module. For details, see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, **10.14 10GE-CWDM SFP+ Optical Modules**, and **10.15 10GE-DWDM SFP+ Optical Modules**. |

### 25GE SFP28 optical port

The S7X08000 provides 25GE SFP28 optical ports to transmit and receive service data at 25 Gbit/s, 10 Gbit/s, or 1 Gbit/s. **Table 8-153** lists the attributes of a 25GE SFP28 optical port.

NOTE

- When the card is installed on the S5731-H, S5731S-H, and S5732-H, the 25GE SFP28 optical ports support 25GE optical modules, SFP28 copper cables (1 m, 3 m, and 5 m; SFP28 to SFP28), SFP28 AOC cables (3 m, 5 m, 7 m, and 10 m; SFP28 to SFP28), GE optical modules, GE copper modules, 10GE SFP+ optical modules, SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).
- When the card is installed on the S5735S-H and S5736-S, the 25GE SFP28 optical ports support 25GE optical modules, SFP28 copper cables (1 m, 3 m, and 5 m; SFP28 to SFP28), SFP28 AOC cables (3 m, 5 m, 7 m, and 10 m; SFP28 to SFP28), GE optical modules, GE copper modules, 10GE SFP+ optical modules (the maximum transmission distance cannot exceed 10 km), SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).
- When a 25GE optical module or cable is connected to a 25GE SFP28 optical port, the port can automatically adjust its rate to 25 Gbit/s.
- When a 10GE optical module or cable is connected to a 25GE SFP28 optical port, the port can automatically adjust its rate to 10 Gbit/s.
- Before installing a GE optical module or copper module on a 25GE SFP28 optical port, run the **port mode ge** command to configure the port to work at 1 Gbit/s.

**Table 8-153** Attributes of a 25GE SFP28 optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |

| Attribute | Description |
| --- | --- |
| Optical port attributes | Depend on the optical module. For details, see **10.16 25GE SFP28 Optical Modules**, **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, **10.14 10GE-CWDM SFP+ Optical Modules**, and **10.15 10GE-DWDM SFP+ Optical Modules**. |

## Technical Specifications

**Table 8-154** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.57 in. x 3.94 in. x 8.19 in.)<br>• Weight: 0.44 kg (0.97 lb)<br>• Maximum power consumption: 33 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-155** provides the S7X08000 ordering information.

**Table 8-155** Ordering information

| Card Description | Card Model | Part Number |
| --- | --- | --- |
| 8-port 10GE SFP+ or 2-port 25GE SFP28 optical interface card (only ports 1 and 2 support 25GE) | S7X08000 | 02312URW<br>02312URW-002 |

# 8.25 S7Y08000 (02312URV/02312URV-002: 8-Port 25GE SFP28 Optical Interface Card)

## Version Mapping

Table 8-156 lists the mapping between the S7Y08000 card and software versions.

**Table 8-156** Version mapping

| Card Model | Part Number | Software Version |
| --- | --- | --- |
| S7Y08000 | 02312URV | V200R019C10SPC500 and later versions |
| | 02312URV-002 | V200R021C10SPC600 and later versions (If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch. After installing the patch, remove and insert the card again to register the card.)<br>**NOTE**<br>If this card is used on the S5732-H48XUM2CC, the initial version is V200R021C10SPC600 and does not support patches with earlier versions. |

## Card Overview

The S7Y08000 provides eight 25GE SFP28 optical ports for data access and switching by default.

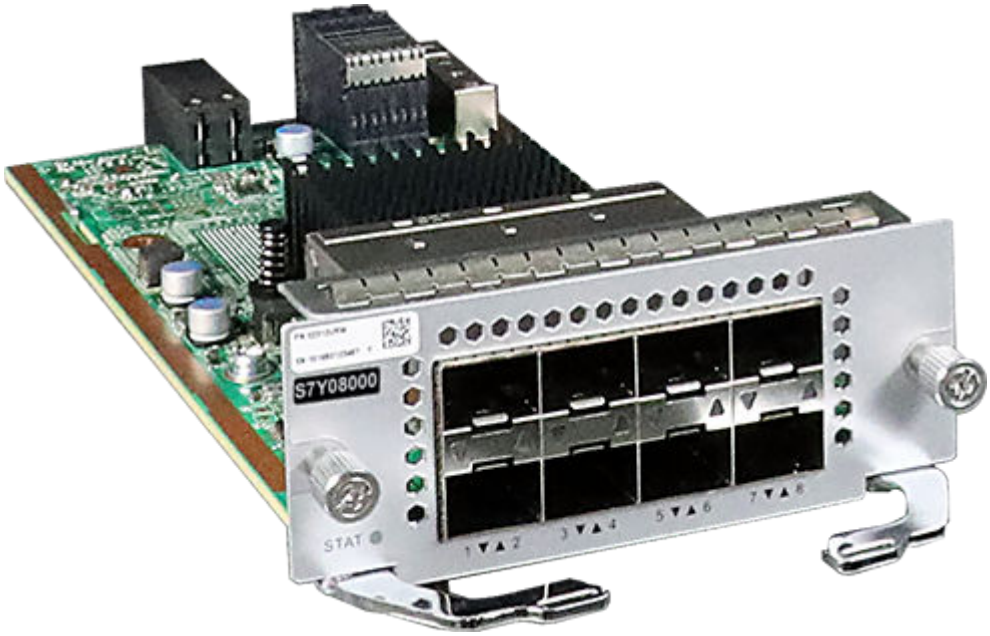
The S7Y08000 can be installed in a rear card slot of the switch models listed in Table 8-157.

**Table 8-157** Applicable switch models

| Card | Switch Model |
| --- | --- |
| S7Y08000 | • S5732-H24UM2CC<br>• S5732-H48UM2CC<br>• S5732-H48XUM2CC |

**Figure 8-78** S7Y08000




## Functions

**Table 8-158** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides eight 25GE SFP28 optical ports for data access and switching by default. |
| Hot swapping | Supported |
| Service ports for stacking | The service ports on the card can be used as stack ports. |

## Indicators and Ports

**Figure 8-79** Indicators on the S7Y08000

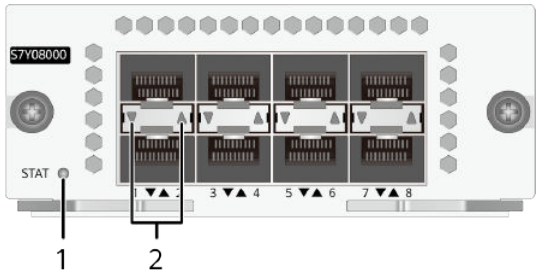
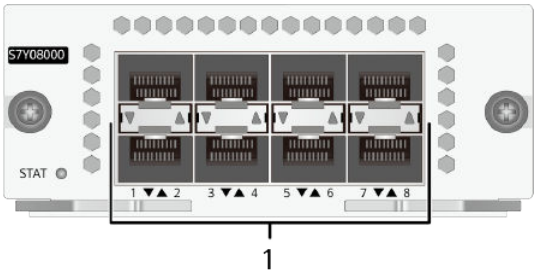


**Table 8-159** Indicator description

| No. | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | STAT | Off | The system software is not running. |
| | | Green | • Fast blinking: The system is starting.<br>• Slow blinking: The system is running properly. |
| | | Red | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| 2 | ACT/LINK | Green | • Steady on: A link is established on the port.<br>• Blinking: The port is sending or receiving data. |
| | | Off | No link is established on the port. |

**Figure 8-80** Ports on the S7Y08000




1. Eight 25GE SFP28 optical ports, supporting 25GE/10GE/GE.

### 25GE SFP28 optical port

The S7Y08000 provides 25GE SFP28 optical ports to transmit and receive service data at 25 Gbit/s, 10 Gbit/s, or 1 Gbit/s. **Table 8-160** lists the attributes of a 25GE SFP28 optical port.

NOTE

- The 25GE SFP28 optical ports support 25GE optical modules, SFP28 copper cables (1 m, 3 m, and 5 m; SFP28 to SFP28), SFP28 AOC cables (3 m, 5 m, 7 m, and 10 m; SFP28 to SFP28), GE optical modules, GE copper modules, 10GE SFP+ optical modules, SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).
- When a 25GE optical module or cable is connected to a 25GE SFP28 optical port, the port can automatically adjust its rate to 25 Gbit/s.
- When a 10GE optical module or cable is connected to a 25GE SFP28 optical port, the port can automatically adjust its rate to 10 Gbit/s.
- Before installing a GE optical module or copper module on a 25GE SFP28 optical port, run the **port mode ge** command to configure the port to work at 1 Gbit/s.

**Table 8-160** Attributes of a 25GE SFP28 optical port

| Attribute | Description |
| --- | --- |
| Connector type | LC/PC |
| Optical port attributes | Depend on the optical module. For details, see **10.16 25GE SFP28 Optical Modules**, **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, **10.14 10GE-CWDM SFP+ Optical Modules**, and **10.15 10GE-DWDM SFP+ Optical Modules**. |

## Technical Specifications

**Table 8-161** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.57 in. x 3.94 in. x 8.19 in.)<br>• Weight: 0.44 kg (0.97 lb)<br>• Maximum power consumption: 33 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-162** provides the S7Y08000 ordering information.

**Table 8-162** Ordering information

| Card Description | Card Model | Part Number |
| --- | --- | --- |
| 8-port 25GE SFP28 optical interface card | S7Y08000 | 02312URV<br>02312URV-002 |

# 8.26 S7Q02001 (02313UBW: 2-port 40GE QSFP+ interface card)

## Overview

**Table 8-163** Basic information about the S7Q02001

| Item | Details |
| --- | --- |
| Description | 2-port 40GE QSFP+ interface card |
| Part Number | 02313UBW |
| Model | S7Q02001 |

## Appearance

**Figure 8-81** Appearance of the S7Q02001

## Version Mapping

**Table 8-164** Mappings between S7Q02001 and product models

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5731-H | S5731-H24HB4XZ (02354QXD) | V200R021C10SPC500 | - |
| S5731-H | S5731-H24HB4XZ (02354QXD-001) | V200R021C10SPC600 | - |
| S5731-H | S5731-H24P4XC (02352QPV) | V200R021C01 | - |

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5731-H | S5731-H24P4XC (02352QPV-001) | V200R021C01 | - |
| S5731-H | S5731-H24P4XC (02352QPV-003) | V200R021C10SPC600 | - |
| S5731-H | S5731-H24T4XC (02352QPP) | V200R021C01 | - |
| S5731-H | S5731-H24T4XC (02352QPP-001) | V200R021C01 | - |
| S5731-H | S5731-H24T4XC (02352QPP-005) | V200R021C10SPC600 | - |
| S5731-H | S5731-H48HB4XZ (02354QXB) | V200R021C10SPC500 | - |
| S5731-H | S5731-H48HB4XZ (02354QXB-001) | V200R021C10SPC600 | - |
| S5731-H | S5731-H48P4XC (02352SVD) | V200R021C01 | - |
| S5731-H | S5731-H48P4XC (02352SVD-001) | V200R021C01 | - |
| S5731-H | S5731-H48P4XC (02352SVD-003) | V200R021C10SPC600 | - |
| S5731-H | S5731-H48T4XC (02352QPT) | V200R021C01 | - |
| S5731-H | S5731-H48T4XC (02352QPT-003) | V200R021C01 | - |
| S5731-H | S5731-H48T4XC (02352QPT-007) | V200R021C10SPC600 | - |
| S5731S-H | S5731S-H24HB4XZ-A (02354QXE) | V200R021C10SPC500 | - |
| S5731S-H | S5731S-H24HB4XZ-A (02354QXE-001) | V200R021C10SPC600 | - |
| S5731S-H | S5731S-H24T4XC-A (02352YRG) | V200R021C01 | - |
| S5731S-H | S5731S-H24T4XC-A (02352YRG-001) | V200R021C01 | - |

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5731S-H | S5731S-H24T4XC-A (02352YRG-003) | V200R021C10SPC600 | - |
| S5731S-H | S5731S-H48HB4XZ-A (02354QXC) | V200R021C10SPC500 | - |
| S5731S-H | S5731S-H48HB4XZ-A (02354QXC-001) | V200R021C10SPC600 | - |
| S5731S-H | S5731S-H48T4XC-A (02352YRF) | V200R021C01 | - |
| S5731S-H | S5731S-H48T4XC-A (02352YRF-003) | V200R021C01 | - |
| S5731S-H | S5731S-H48T4XC-A (02352YRF-005) | V200R021C10SPC600 | - |
| S5732-H | S5732-H24UM2CC (02353HUC) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353HUC-003) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-001) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-004) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-010) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-011) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-014) | V200R022C00 | - |

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5732-H | S5732-H24UM2CC (02353SJY-020) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-021) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-024) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353HUB) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353HUB-002) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-001) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-003) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-004) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-010) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-011) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-013) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-014) | V200R022C00 | - |

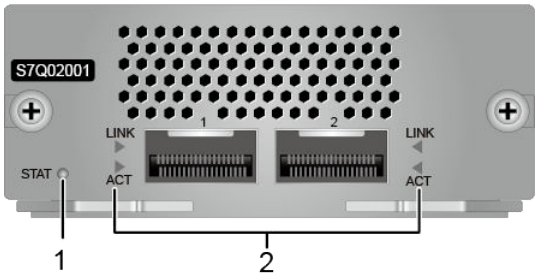
  

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5732-H | S5732-H48UM2CC (02353SJT-020) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-021) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-023) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-024) | V200R022C00 | - |
| S5732-H | S5732-H48XUM2CC (02353MLH) | V200R022C00 | - |
| S5732-H | S5732-H48XUM2CC (02353MLH-001) | V200R022C00 | - |
| S5732-H | S5732-H48XUM2CC (02353MLH-002) | V200R023C10 | - |
| S5735S-H | S5735S-H24S4XC-A (98011041) | V200R021C01 | - |
| S5736-S | S5736-S24S4XC (98011038) | V200R021C01 | - |
| S5736-S | S5736-S24UM4XC (98011020) | V200R021C01 | - |
| S5736-S | S5736-S24UM4XC (98011020-001) | V200R021C01 | - |
| S5736-S | S5736-S24UM4XC (98011020-004) | V200R021C01 | - |
| S5736-S | S5736-S48S4XC (98011042) | V200R021C01 | - |

## Indicators

**Figure 8-82** Indicators on the S7Q02001




| | |
|---|---|
| 1. STAT: running status indicator | 2. LINK/ACT indicators of ports |

**Table 8-165** Indicators on the S7Q02001

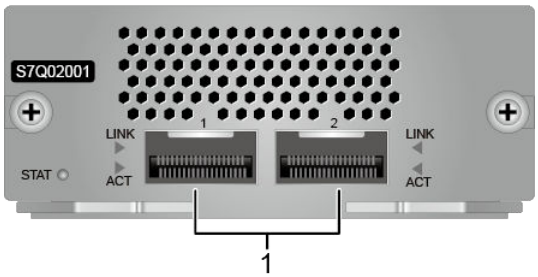
| Silkscreen | Name | Color | Status | Description |
|---|---|---|---|---|
| STAT | Running status indicator | - | Off | The system software is not running. |
| | | Green | Fast blinking | The system is starting. |
| | | Green | Slow blinking | The system is running normally. |
| | | Red | Steady on | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| LINK | LINK indicators of ports | - | Off | No link is established on the port. |
| | | Green | Steady on | A link is established on the port. |

| Silkscreen | Name | Color | Status | Description |
| --- | --- | --- | --- | --- |
| ACT | ACT indicators of ports | - | Off | The port is not transmitting or receiving data. |
| | | Yellow | Blinking | The port is transmitting or receiving data. |

## Ports

**Figure 8-83** Ports on the S7Q02001




| |
| --- |
| 1. Two 40GE QSFP+ optical ports |

**Table 8-166** Ports on the S7Q02001

| Port | Connector Type | Description | Available Components |
| --- | --- | --- | --- |
| 40GE QSFP+ optical port | QSFP+ | 40GE optical ports to transmit and receive service traffic at 40 Gbit/s | • **40GE QSFP+ optical modules**<br>• **1 m, 3 m, and 5 m QSFP+ high-speed copper cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)**<br>• **10 m QSFP+ AOC cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)** |

## Functions and Features

**Table 8-167** Functions and features of the S7Q02001

| Function | Description |
| --- | --- |
| Basic functions | Provides two 40GE QSFP+ optical ports for data access and line-rate switching. Each 40GE port can be split into four 10GE ports. |
| Hot swapping | Supported |
| Service port stacking | Ports on the card can be used as stack ports.<br>**NOTE**<br>A 40GE port cannot be used as a stack port after it is split into four 10GE ports. |

## Technical Specifications

**Table 8-168** Technical specifications of the S7Q02001

| Item | Specification |
| --- | --- |
| Dimensions without packaging (H x W x D) [mm(in.)] | 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.) |

| Item | Specification |
| --- | --- |
| Dimensions with packaging (H x W x D) [mm(in.)] | 80 mm x 160 mm x 305 mm (3.15 in. x 6.30 in. x 12.01 in.) |
| Weight without packaging [kg(lb)] | 0.40 kg (0.88 lb) |
| Weight with packaging [kg(lb)] | 0.6 kg (1.32 lb) |
| Typical power consumption [W] | 24 W |
| Typical heat dissipation [BTU/hour] | 81.89 BTU/hour |
| Maximum power consumption [W] | 27 W |
| Maximum heat dissipation [BTU/hour] | 92.13 BTU/hour |

# 8.27 S7Q02001 (02313UBW-002: 2-port 40GE QSFP+ interface card)

## Overview

**Table 8-169** Basic information about the S7Q02001

| Item | Details |
| --- | --- |
| Description | 2-port 40GE QSFP+ interface card |
| Part Number | 02313UBW-002 |
| Model | S7Q02001 |

## Appearance

**Figure 8-84** Appearance of the S7Q02001

## Version Mapping

**Table 8-170** Mappings between S7Q02001 and product models

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5731-H | S5731-H24HB4XZ (02354QXD) | V200R021C10SPC600 | - |
| S5731-H | S5731-H24HB4XZ (02354QXD-001) | V200R021C10SPC600 | - |
| S5731-H | S5731-H24P4XC (02352QPV) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731-H | S5731-H24P4XC (02352QPV-001) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731-H | S5731-H24P4XC (02352QPV-003) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5731-H | S5731-H24T4XC (02352QPP) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731-H | S5731-H24T4XC (02352QPP-001) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731-H | S5731-H24T4XC (02352QPP-005) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731-H | S5731-H48HB4XZ (02354QXB) | V200R021C10SPC600 | - |
| S5731-H | S5731-H48HB4XZ (02354QXB-001) | V200R021C10SPC600 | - |

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5731-H | S5731-H48P4XC (02352SVD) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731-H | S5731-H48P4XC (02352SVD-001) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731-H | S5731-H48P4XC (02352SVD-003) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731-H | S5731-H48T4XC (02352QPT) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5731-H | S5731-H48T4XC (02352QPT-003) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731-H | S5731-H48T4XC (02352QPT-007) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731S-H | S5731S-H24HB4XZ-A (02354QXE) | V200R021C10SPC600 | - |
| S5731S-H | S5731S-H24HB4XZ-A (02354QXE-001) | V200R021C10SPC600 | - |
| S5731S-H | S5731S-H24T4XC-A (02352YRG) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5731S-H | S5731S-H24T4XC-A (02352YRG-001) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731S-H | S5731S-H24T4XC-A (02352YRG-003) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731S-H | S5731S-H48HB4XZ-A (02354QXC) | V200R021C10SPC600 | - |
| S5731S-H | S5731S-H48HB4XZ-A (02354QXC-001) | V200R021C10SPC600 | - |
| S5731S-H | S5731S-H48T4XC-A (02352YRF) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5731S-H | S5731S-H48T4XC-A (02352YRF-003) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5731S-H | S5731S-H48T4XC-A (02352YRF-005) | V200R021C10SPC600 | If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card. |
| S5732-H | S5732-H24UM2CC (02353HUC) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353HUC-003) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-001) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-004) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-010) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-011) | V200R022C00 | - |

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5732-H | S5732-H24UM2CC (02353SJY-014) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-020) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-021) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-024) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353HUB) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353HUB-002) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-001) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-003) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-004) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-010) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-011) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-013) | V200R022C00 | - |

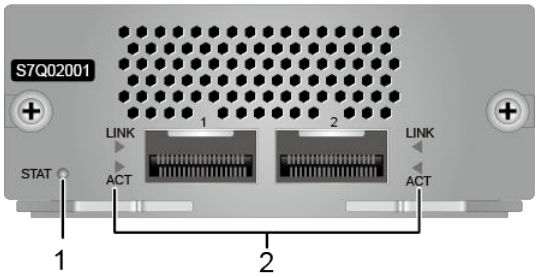
  

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5732-H | S5732-H48UM2CC (02353SJT-014) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-020) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-021) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-023) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-024) | V200R022C00 | - |
| S5732-H | S5732-H48XUM2CC (02353MLH) | V200R022C00 | - |
| S5732-H | S5732-H48XUM2CC (02353MLH-001) | V200R022C00 | - |
| S5732-H | S5732-H48XUM2CC (02353MLH-002) | V200R023C10 | - |
| S5735S-H | S5735S-H24S4XC-A (98011041) | V200R021C10SPC600 | - |
| S5736-S | S5736-S24S4XC (98011038) | V200R021C10SPC600 | - |
| S5736-S | S5736-S24UM4XC (98011020) | V200R021C10SPC600 | - |
| S5736-S | S5736-S24UM4XC (98011020-001) | V200R021C10SPC600 | - |
| S5736-S | S5736-S24UM4XC (98011020-004) | V200R021C10SPC600 | - |
| S5736-S | S5736-S48S4XC (98011042) | V200R021C10SPC600 | - |

## Indicators

**Figure 8-85** Indicators on the S7Q02001




| 1. STAT: running status indicator | 2. LINK/ACT indicators of ports |
|---|---|

**Table 8-171** Indicators on the S7Q02001

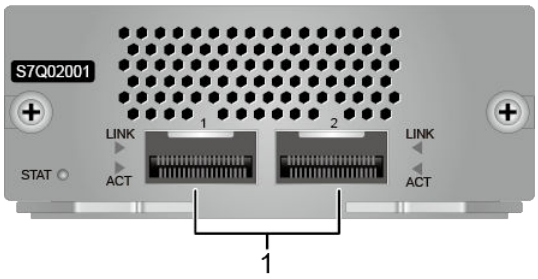
| Silkscreen | Name | Color | Status | Description |
|---|---|---|---|---|
| STAT | Running status indicator | - | Off | The system software is not running. |
| | | Green | Fast blinking | The system is starting. |
| | | Green | Slow blinking | The system is running normally. |
| | | Red | Steady on | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| LINK | LINK indicators of ports | - | Off | No link is established on the port. |
| | | Green | Steady on | A link is established on the port. |

| Silkscreen | Name | Color | Status | Description |
| --- | --- | --- | --- | --- |
| ACT | ACT indicators of ports | - | Off | The port is not transmitting or receiving data. |
| | | Yellow | Blinking | The port is transmitting or receiving data. |

## Ports

**Figure 8-86** Ports on the S7Q02001




| 1. Two 40GE QSFP+ optical ports |
| --- |

**Table 8-172** Ports on the S7Q02001

| Port | Connector Type | Description | Available Components |
| --- | --- | --- | --- |
| 40GE QSFP+ optical port | QSFP+ | 40GE optical ports to transmit and receive service traffic at 40 Gbit/s | • **40GE QSFP+ optical modules**<br>• **1 m, 3 m, and 5 m QSFP+ high-speed copper cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)**<br>• **10 m QSFP+ AOC cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)** |

## Functions and Features

**Table 8-173** Functions and features of the S7Q02001

| Function | Description |
| --- | --- |
| Basic functions | Provides two 40GE QSFP+ optical ports for data access and line-rate switching. Each 40GE port can be split into four 10GE ports. |
| Hot swapping | Supported |
| Service port stacking | Ports on the card can be used as stack ports.<br>**NOTE**<br>A 40GE port cannot be used as a stack port after it is split into four 10GE ports. |

## Technical Specifications

**Table 8-174** Technical specifications of the S7Q02001

| Item | Specification |
| --- | --- |
| Dimensions without packaging (H x W x D) [mm(in.)] | 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.) |

| Item | Specification |
| --- | --- |
| Dimensions with packaging (H x W x D) [mm(in.)] | 80 mm x 160 mm x 305 mm (3.15 in. x 6.30 in. x 12.01 in.) |
| Weight without packaging [kg(lb)] | 0.40 kg (0.88 lb) |
| Weight with packaging [kg(lb)] | 0.6 kg (1.32 lb) |
| Typical power consumption [W] | 24 W |
| Typical heat dissipation [BTU/hour] | 81.89 BTU/hour |
| Maximum power consumption [W] | 27 W |
| Maximum heat dissipation [BTU/hour] | 92.13 BTU/hour |

# 8.28 S7C02000 (2-port 100GE QSFP28 interface card)

## Overview

**Table 8-175** Basic information about the S7C02000

| Item | Details |
| --- | --- |
| Description | 2-port 100GE QSFP28 interface card |
| Part Number | 02313UBV |
| Model | S7C02000 |

## Appearance

**Figure 8-87** Appearance of the S7C02000

## Version Mapping

**Table 8-176** Mappings between S7C02000 and product models

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5732-H | S5732-H24UM2CC (02353HUC) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353HUC-003) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-001) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-004) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-010) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-011) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-014) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-020) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-021) | V200R022C00 | - |
| S5732-H | S5732-H24UM2CC (02353SJY-024) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353HUB) | V200R022C00 | - |

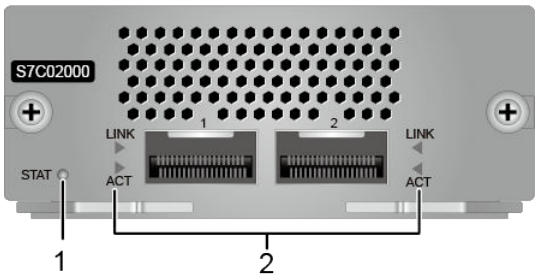
| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5732-H | S5732-H48UM2CC (02353HUB-002) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-001) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-003) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-004) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-010) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-011) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-013) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-014) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-020) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-021) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-023) | V200R022C00 | - |
| S5732-H | S5732-H48UM2CC (02353SJT-024) | V200R022C00 | - |

| Product | Product Model | First Supported Version | Limitations |
| --- | --- | --- | --- |
| S5732-H | S5732-H48XUM2CC (02353MLH) | V200R022C00 | - |
| S5732-H | S5732-H48XUM2CC (02353MLH-001) | V200R022C00 | - |
| S5732-H | S5732-H48XUM2CC (02353MLH-002) | V200R023C10 | - |

## Indicators

**Figure 8-88** Indicators on the S7C02000




| 1. STAT: running status indicator | 2. LINK/ACT indicators of ports |
| --- | --- |

**Table 8-177** Indicators on the S7C02000

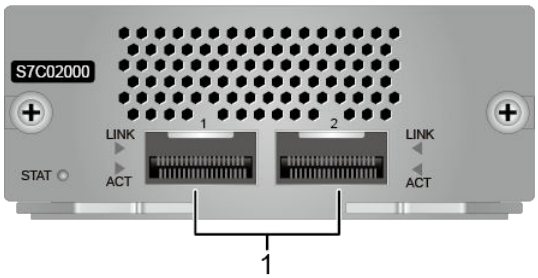
| Silkscreen | Name | Color | Status | Description |
| --- | --- | --- | --- | --- |
| STAT | Running status indicator | - | Off | The system software is not running. |
| | | Green | Fast blinking | The system is starting. |
| | | Green | Slow blinking | The system is running normally. |

| Silkscreen | Name | Color | Status | Description |
| --- | --- | --- | --- | --- |
| | | Red | Steady on | A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |
| LINK | LINK indicators of ports | - | Off | No link is established on the port. |
| | | Green | Steady on | A link is established on the port. |
| ACT | ACT indicators of ports | - | Off | The port is not transmitting or receiving data. |
| | | Yellow | Blinking | The port is transmitting or receiving data. |

## Ports

**Figure 8-89** Ports on the S7C02000




| |
| --- |
| 1. Two 40GE/100GE QSFP28 optical ports |

**Table 8-178** Ports on the S7C02000

| Port | Connector Type | Description | Available Components |
| --- | --- | --- | --- |
| 100GE QSFP28 optical port | QSFP28 | 100GE optical ports to transmit and receive service traffic at 40 Gbit/s or 100 Gbit/s. | • **100GE QSFP28 optical modules**<br>• **1 m, 3 m, and 5 m QSFP28 to QSFP28 high-speed copper cable**<br>• **10 m QSFP28 to QSFP28 AOC cable**<br>• **2 m QSFP28 dedicated stack cable**<br>• **40GE QSFP+ optical modules**<br>• **1 m, 3 m, and 5 m QSFP+ high-speed copper cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)**<br>• **10 m QSFP+ AOC cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)** |

## Functions and Features

**Table 8-179** Functions and features of the S7C02000

| Function | Description |
| --- | --- |
| Basic functions | Provides two 40GE/100GE QSFP28 optical ports for data access and line-rate switching. Each 40GE/100GE port can be split into four 10GE ports or four 25GE ports. |

| Function | Description |
| --- | --- |
| Hot swapping | Supported |
| Service port stacking | Ports on the card can be used as stack ports.<br>**NOTE**<br>A 40GE/100GE port cannot be used as a stack port after it is split into four 10GE ports or four 25GE ports. |

## Technical Specifications

**Table 8-180** Technical specifications of the S7C02000

| Item | Specification |
| --- | --- |
| Dimensions without packaging (H x W x D) [mm(in.)] | 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.) |
| Dimensions with packaging (H x W x D) [mm(in.)] | 80 mm x 160 mm x 305 mm (3.15 in. x 6.30 in. x 12.01 in.) |
| Weight without packaging [kg(lb)] | 0.40 kg (0.88 lb) |
| Weight with packaging [kg(lb)] | 0.6 kg (1.32 lb) |
| Typical power consumption [W] | 25 W |
| Typical heat dissipation [BTU/hour] | 85.3 BTU/hour |
| Maximum power consumption [W] | 28 W |
| Maximum heat dissipation [BTU/hour] | 95.54 BTU/hour |

# 8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP + Interface)

## Version Mapping

Table 8-181 lists the mapping between the ES5D21VST000 card and software versions.

**Table 8-181** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D21VST000 | S5720-C-EI and S5720-PC-EI: V200R007C00 to V200R019C10 versions<br>**NOTE**<br>This module is not supported in V200R007C10.<br>S5730-SI and S5730S-EI: V200R012C00 to V200R019C10 versions |

## Card Overview

The ES5D21VST000 is a stack card that provides two QSFP+ optical ports for stack connection. It can be installed in a rear card slot of the switch models listed in **Table 8-182**.

**Table 8-182** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D21VST000 | S5720-C-EI, S5720-PC-EI, S5730-SI, and S5730S-EI series |

**Figure 8-90** ES5D21VST000


## Functions

**Table 8-183** describes functions of the ES5D21VST000.

**Table 8-183** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides two QSFP+ optical ports for setting up a stack system among multiple switches. The QSFP+ optical port cannot be split into four 10GE ports. |
| Hot swapping | Supported |

## Indicators and Ports

**Figure 8-91** Indicators on the ES5D21VST000

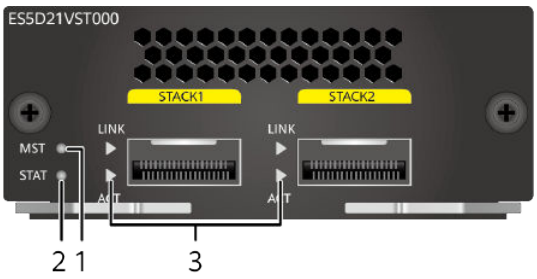


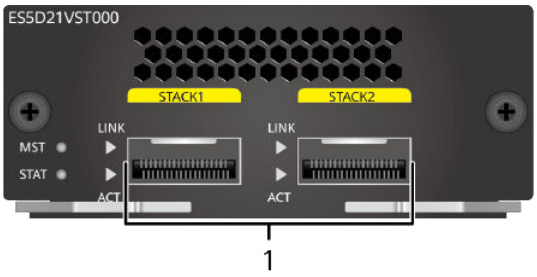

**Table 8-184** Description of indicators on the ES5D21VST000

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 1 | MST | Off | Off: The switch is the standby or slave switch in a stack or a standalone switch with the stacking function disabled. |
| | | Green | Blinking: The switch is the master switch in a stack or a standalone switch with the stacking function enabled. |
| 2 | STAT | Off | The system software is not running. |
| | | Green | • Fast blinking: The system is starting.<br>• Slow blinking: The system is running properly. |
| | | Red | Steady on: A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention. |

| Number | Indicator | Color | Description |
| --- | --- | --- | --- |
| 3 | LINK | Off | No link is established on the port. |
| | | Green | Steady on: A link is established on the port. |
| | ACT | Off | The port is not transmitting or receiving data. |
| | | Yellow | Blinking: The port is transmitting or receiving data. |

**Figure 8-92** Ports on the ES5D21VST000




| |
| --- |
| 1. Two QSFP+ optical ports |

### QSFP+ optical ports

QSFP+ optical ports on the ES5D21VST000 are used for setting up a stack system among multiple switches. **Table 8-185** lists the attributes of a QSFP+ optical port.

**NOTE**

When the card is installed on the S5720-EI, the two optical ports on the card can work with QSFP+ optical modules (only QSFP-40G-SR4 and QSFP-40G-iSR4 supported) and QSFP+ cables (1 m, 3 m, and 5 m; QSFP+ to QSFP+). When the card is installed on the S5730-SI or S5730S-EI, the optical ports on the card can work with QSFP+ optical modules (excluding the QSFP-40G-SR-BD), QSFP+ AOC cables (10 m; QSFP+ to QSFP+), and QSFP+ cables (1 m, 3 m, and 5 m; QSFP+ to QSFP+).

**Table 8-185** Attributes of a QSFP+ optical port

| Attribute | Description |
| --- | --- |
| Connector type | MPO |
| Optical port attributes | Depend on the optical module used (see **10.17 40GE QSFP+ Optical Modules**) |

| Attribute | Description |
| --- | --- |
| Standards compliance | IEEE 802.3ba |

## Technical Specifications

**Table 8-186** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.)<br>• Weight: 0.92 kg (2.03 lb)<br>• Maximum power consumption: 9 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-187** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| Dedicated stack card with 2*QSFP+ interface (including one PCS of 1 m QSFP+ cable) | ES5D21VST000 | 02310YXY |

# 8.30 ES5D00ETPC00 (Stack Rear Card)

## Version Mapping

Table 8-188 lists the mapping between the ES5D00ETPC00 card and software versions.

**Table 8-188** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D00ETPC00<br>**NOTE**<br>After the **display device** command is executed, the PCB model of the card is displayed as CX22ETPC. | V100R005C01 to V200R005C03<br>**NOTE**<br>This module is not supported in V200R003C02 or V200R003C10. |

## Card Overview

Intelligent Stack (iStack) technology enables multiple stacking-capable devices to function as a logical device.

Before a stack is set up, each switch is an independent entity that has its own IP address and MAC address. You need to manage the switches separately. After a stack is set up, switches in the stack form a logical entity that can be managed and maintained using a single IP address. Stack technology improves forwarding performance and network reliability, and simplifies network management.

Switches can be connected as a stack using service ports or stack cards (ES5D00ETPC00).

The ES5D00ETPC00 stack card can be installed in a rear card slot of the switch models listed in **Table 8-189**.

**Table 8-189** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D00ETPC00 | • S5700-24TP-SI-AC<br>• S5700-24TP-SI-DC<br>• S5700-48TP-SI-AC<br>• S5700-48TP-SI-DC<br>• S5700-24TP-PWR-SI<br>• S5700-48TP-PWR-SI<br>• S5700-28C-SI<br>• S5700-52C-SI<br>• S5700-28C-PWR-SI<br>• S5700-52C-PWR-SI<br>• S5700-28C-EI<br>• S5700-52C-EI<br>• S5700-28C-EI-24S<br>• S5700-28C-PWR-EI<br>• S5700-52C-PWR-EI<br>• S5710-28C-LI<br>• S5710-52C-LI<br>• S5710-28C-PWR-LI<br>• S5710-52C-PWR-LI |

**Figure 8-93** shows the appearance of the ES5D00ETPC00.

**Figure 8-93** ES5D00ETPC00


## Functions

**Table 8-190** describes functions of the ES5D00ETPC00.

**Table 8-190** Functions

| Function | Description |
| --- | --- |
| Basic function | Provides two 12 Gbit/s electrical ports for stacking. The 12 Gbit/s electrical ports on multiple switches are connected using PCIe cables to set up a stack. |
| Topology | Switches in a stack can be connected in a chain or ring topology. A link failure in the chain topology causes the stack to split. In contrast, the ring topology changes into a chain topology upon a link failure so that services in the stack are not affected. Therefore, the ring topology is more reliable than the chain topology. **Figure 8-94** and **Figure 8-95** show the chain and ring topologies.<br>**NOTE**<br>When connecting stack cables, connect stack1 port of one switch to stack2 port of another switch. |

**Figure 8-94** Chain topology of a stack

**Figure 8-95** Ring topology of a stack

## Usage Constraints

**NOTICE**

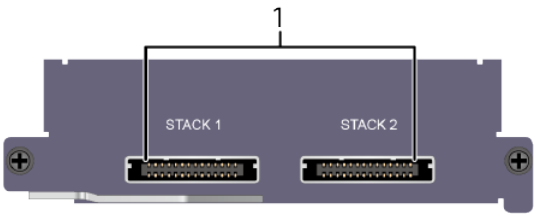
The following requirements must be met to set up a stack:

- All the member switches belong to the same series. The EI series and SI series cannot form a stack.
- All switches have stack cards installed and are connected using PCIe cables.
- The ES5D00ETPC00 is not hot swappable, but PCIe cables are hot swappable.

## Port Description

Figure 8-96 shows ports on the ES5D00ETPC00.

**Figure 8-96** Ports on the ES5D00ETPC00




| 1. Two stack electrical ports |
| --- |

**Stack electrical port**

The ES5D00ETPC00 provides two 12 Gbit/s electrical ports for stacking. The two 12 Gbit/s electrical ports must be used with **9.2 PCIe Cables**. **Table 8-191** describes attributes of the 12 Gbit/s electrical port.

**Table 8-191** Attributes of a stack electrical port

| Attribute | Description |
| --- | --- |
| Connector type | PCIe |
| Standards compliance | IEEE 802.3ae |
| Frame format | Ethernet_II, Ethernet_SAP, Ethernet_SNAP |
| Network protocol | IP |

## Technical Specifications

**Table 8-192** lists technical specifications of the ES5D00ETPC00.

**Table 8-192** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 43 mm x 143 mm x 126 mm (1.69 in. x 5.63 in. x 4.96 in.)<br>• Weight: 0.2 kg (0.44 lb)<br>• Maximum power consumption: 0.5 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-193** provides the card ordering information.

**Table 8-193** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| Ethernet Stack Interface Card (Including Stack Card, 100 cm Stack Cable) | ES5D001VST00 | 02319959 |
| Ethernet Stack Interface Card (Including Stack Card, 300 cm Stack Cable) | ES5D2VS02000 | 02310QPL |

# 8.31 ES5D00ETPB00 (Extended Rear Card)

## Version Mapping

Table 8-194 lists the mapping between the ES5D00ETPB00 card and software versions.

**Table 8-194** Version mapping

| Card Model | Software Version |
| --- | --- |
| ES5D00ETPB00<br>**NOTE**<br>After the **display device** command is executed, the PCB model of the card is displayed as CX22ETPB. | V100R005C01 to V200R005C03<br>**NOTE**<br>This module is not supported in V200R003C02 or V200R003C10. |

## Card Overview

The ES5D00ETPB00 can be installed in a rear card slot of the switch models listed in Table 8-195.

**Table 8-195** Applicable switch models

| Card | Switch Model |
| --- | --- |
| ES5D00ETPB00 | • S5700-28C-SI<br>• S5700-52C-SI<br>• S5700-28C-PWR-SI<br>• S5700-52C-PWR-SI<br>• S5700-28C-EI<br>• S5700-52C-EI<br>• S5700-28C-EI-24S<br>• S5700-28C-PWR-EI<br>• S5700-52C-PWR-EI<br>• S5710-28C-LI<br>• S5710-52C-LI<br>• S5710-28C-PWR-LI<br>• S5710-52C-PWR-LI |

Figure 8-97 shows the appearance of the ES5D00ETPB00.

**Figure 8-97** ES5D00ETPB00

## Functions

Table 8-196 describes functions of the ES5D00ETPB00.

**Table 8-196** Functions

| Function | Description |
| --- | --- |
| Basic function | The ES5D00ETPB00 extended rear card must be used together with the ES5D000X4S01/ES5D000G4S01/ ES5D00G4SA01 front card to provide four GE SFP ports or four 10GE SFP+ ports. |

## Usage Constraints

**NOTICE**

An ES5D000X4S01/ES5D000G4S01/ES5D00G4SA01 front card must be used with an ES5D00ETPB00 rear card.

The ES5D00ETPB00 is not hot swappable.

## Technical Specifications

Table 8-197 lists technical specifications of the ES5D00ETPB00.

**Table 8-197** Technical specifications

| Item | Description |
| --- | --- |
| Physical specifications | • Dimensions (H x W x D): 43 mm x 143 mm x 126 mm (1.69 in. x 5.63 in. x 4.96 in.)<br>• Weight: 0.2 kg (0.44 lb)<br>• Maximum power consumption: 0.1 W |

## Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

**Table 8-198** provides the ES5D00ETPB00 ordering information.

**Table 8-198** Ordering information

| Card Description | Card Name | Part Number |
| --- | --- | --- |
| Extended channel card | ES5D00ETPB00 | 03020MLA |