



Inspur Server NF3280A6 White Paper

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Technical Support

Hotline: 1-844-860-0011/1-760-769-1847

Address: No. 1036, Langchao Road, Jinan, Shandong Province, China

Inspur Electronic Information Industry Co., Ltd.

Email: serversupport@inspur.com

Postal Code: 250101

Abstract

This manual introduces the appearance features, performance parameters, and hardware and software compatibility of the NF3280A6 in detail.

Target Readers

This manual is intended for:

- Technical support engineers
- Product maintenance engineers






We recommend that qualified engineers with knowledge of servers perform server O&M with reference to this manual.

Notes

- If you have not purchased the installation service, inspect the packaging box before unpacking the device. If there is serious or water damage to the packaging, or the seal or pressure-sensitive tape has been tampered with, please report the problem to the seller. Contact the supplier of your device or Inspur, if you purchased your device from us, at our hotline 1-844-860-0011 (toll-free)/1-760-769-1847 (DID) for technical support.
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- Always use drivers certified by Inspur to build operating system (OS) environments. Go to our official site, click Support > Product Support > Drivers, and then find the appropriate driver for your product as prompted by the page. Inspur will not be held liable or responsible for any compatibility issues and interference with the normal use of a product due to your use of a driver that is not certified by Inspur.
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Icons

The following icons may appear in this document to highlight specific information:

Icon	Description
 DANGER	A potential for serious injury, or even death if not properly handled
 WARNING	A potential for minor or moderate injury if not properly handled
 CAUTION	A potential loss of data or damage to equipment if not properly handled
 IMPORTANT	Operations or information that requires special attention to ensure successful installation or configuration
 NOTE	Supplementary description of important information

Change History

Version	Date	Change
V1.0	2021-12-06	First release

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1 Product Overview

Inspur NF3280A6 is a 2U1S rack server designed based on the 3rd generation AMD® EPYC™ Milan Processors. With multiple cores, high base frequency and flexible expansion, NF3280A6 maximizes the performance of a single processor, making it comparable to traditional dual-socket servers. It is designed for the needs of Internet, cloud computing, virtualization and big data and serves best in distributed, big data, and virtualized scenarios.

2 Features

NF3280A6 delivers high quality and reliability for all kinds of application scenarios, as Inspur servers always do. It features exceptional configuration flexibility to cater to mainstream mid-range demands, adopting the ultimate design philosophy in performance, scalability, availability and manageability.

2.1 High Performance

- NF3280A6 is built on the new generation of AMD Milan Processors. The CPU supports up to 64 cores and 128 threads at the maximum Turbo frequency of 3.7 GHz and up to 280 W thermal design power (TDP). It supports PCIe 4.0 interfaces with up to 128 lanes.
- 16 DDR4 ECC memory modules (RDIMM or LRDIMM) are supported with their data transfer rate up to 3,200 MT/s under 1 DPC and 2,933 MT/s under 2 DPC. The memory modules each have a maximum capacity of 128 GB, offering a total maximum capacity of 2 TB with high speeds and superior availability.
- The all-flash configuration of up to 24 hot-swap NVMe SSDs provides high IOPS ten times higher than that of high-end enterprise-level SATA SSDs.

2.2 Scalability

- Front: Up to 12 × 3.5" SAS/SATA/NVMe drive or 24 × 2.5" SAS/SATA/NVMe drive
- Internal: Up to 2 × M.2 SATA/PCIe SSD or 4 × 3.5" SAS/SATA drive
- Rear: Up to 2 × 3.5" SAS/SATA drive or 4 × 2.5" SAS/SATA/NVMe drive
- OCP NIC 3.0 SFF expansion card
- 6 onboard Slimline x8 connectors with NVMe drives directly connected to the CPU
- Up to 6 standard PCIe expansion cards, including 2 FHHL x16 slots and 4 FHFL x8 slots, and 3 FHHL PCIe x16 slots and 2 FHHL PCIe 4.0 x8 slots
- Up to 4 dual-width full-height 3/4-length GPUs and 1 FHHL PCIe 4.0 x16 slot

2.3 Availability

- With a user-friendly design, the entire system supports tool-free maintenance. The enhanced and optimized structures allow for easy assembly/disassembly and greatly reduce O&M time.
- Inspur's unique intelligent regulating technology combined with a cutting-edge air-cooling system creates an optimum working environment to ensure server health.
- The drives are hot-swappable. The RAID controller card supports RAID 0/1/10/5/6/60/1E, RAID cache and data protection in case of power failure caused by the super capacitor.
- 8 NVDIMMs are supported to ensure memory data integrity in case of power failure without compromising on the memory capacity and bandwidth.
- With the latest BMC, technicians can quickly locate components that have failed (or are failing) through the Web GUI, fault diagnosis LEDs and UID LEDs on the front panel, simplifying maintenance, speeding up troubleshooting, and enhancing system availability.

- Technicians can monitor system parameters and take appropriate actions in a timely manner via the alarms sent in advance via BMC to ensure system health and minimize system downtime.

2.4 Manageability (BMC)

- The Baseboard Management Controller (BMC), a remote server management system, was developed by Inspur and is equipped on the server. The BMC has the following advantages:
- Supports mainstream management specifications in the industry such as IPMI 2.0 and Redfish 1.0.2.
- Delivers high operational reliability.
- Features excellent serviceability for different customer scenarios.
- Provides comprehensive and accurate fault diagnosis capabilities.
- Offers enhanced security above industry average.

2.5 Energy Efficiency (AC)

- Equipped with 80 PLUS Platinum PSUs (800–2,000 W) with power efficiency up to 94% at a load of 50%.
- Offers 1+1 redundant and integrated AC/DC power supplies for optimized power conversion efficiency.
- The efficient VRD power for every board reduces loss during DC-DC conversion.
- Intelligent fan speed control and intelligent CPU frequency scaling help conserve energy.
- A fully-optimized cooling design and energy-efficient cooling fans reduce power consumption of the fans.

2.6 Security

- Supports firmware encryption and digital signatures to prevent unauthorized writing of unknown firmware.
- The chassis of Inspur NF3280A6 features a hood latch on the top cover and quick release levers on the front panel.

3 New Technical Highlights

3.1 AMD® Scalable Architecture

The Milan CPU adopts 7 nm process and technologies that enable better chip efficiency and power consumption performance, and has 64 cores and 128 threads. It has a frequency ranging between 2.0–3.7 GHz and a maximum power consumption of 280 W. It integrates the PCIe 4.0 interface which supports up to 128 lanes.

The Milan CPU adopts a 9-die infrastructure that includes 8 CCD dies, each containing 8 cores and 1 I/O die. Compared to the Rome platform, every 8 cores of Milan share 32 MB of L3 cache. For scenarios that have higher requirements on performance per core, the computing efficiency of Milan processors is superior to that of Rome processors.

3.2 OCP NIC 3.0 Module

The optional OCP NIC 3.0 module (up to 100 Gbps) provides larger scalability.

4 Logical Architecture

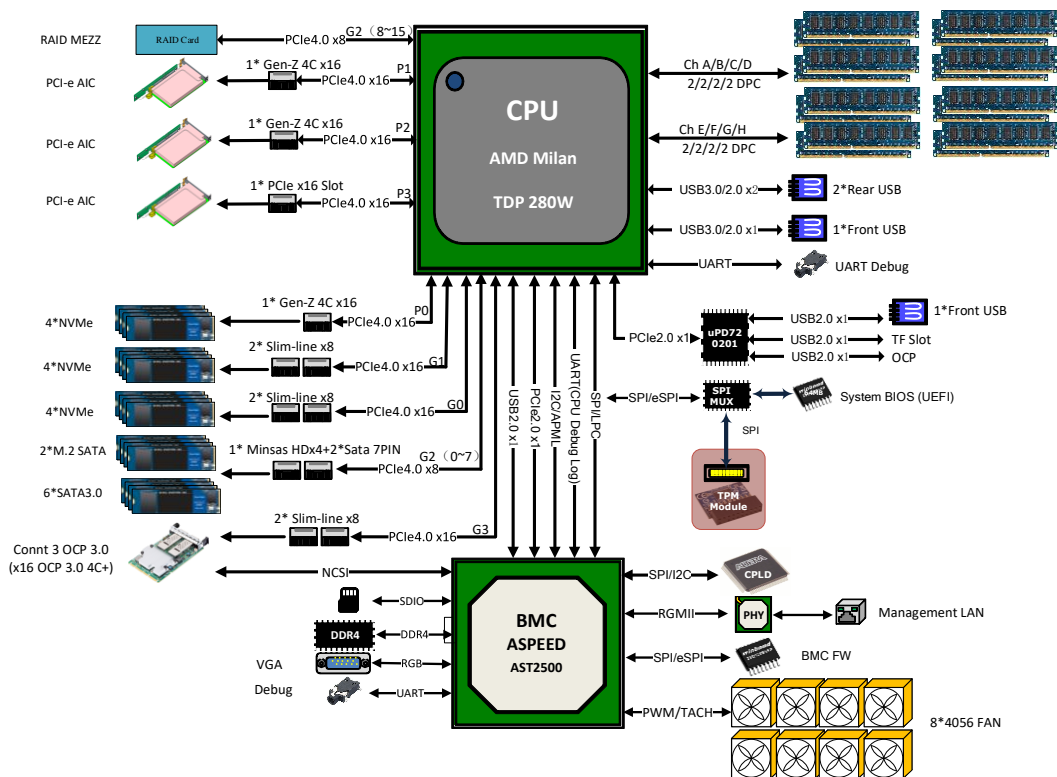
NF3280A6 supports 1 AMD Milan scalable processor and 16 DDR4 DIMMs.

The processor is connected to the 3 PCIe slots on the board through the PCIe bus. Up to 2 PCIe 4.0 x16 full-height and half-length cards or 2 PCIe 4.0 x16 half-height and half-length cards and 1 PCIe 4.0 x16 full-height and half-length card are supported.

The onboard RAID card/2 x NVMe M.2 SSD connects to the CPU through the PCIe bus and to the drive backplanes through SAS signal cables. The different drive backplanes enable various local storage configurations: 12 x 3.5" SATA/SAS/NVMe drive; 24 x 2.5" SAS/NVMe drive.

Figure 4-1 illustrates the logic block diagram of NF3280A6.

Figure 4-1 Logic Block Diagram of NF3280A6



5 Product Overview

5.1 Front Panel

5.1.1 12 × 3.5" Drive Configuration

Figure 5-1 Front View

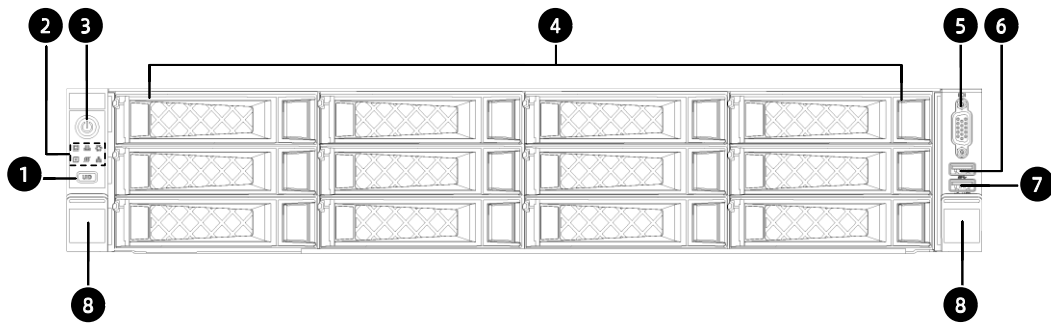


Table 5-1 Drive Modules

Item	Feature	Item	Feature
1	UID/BMC RST Button	5	VGA Port
2	LEDs	6	USB 3.0 Port
3	Power Button	7	USB 2.0/LCD Port
4	3.5" Drive × 12	8	Quick Release Lever

5.1.2 24 × 2.5" Drive Configuration

Figure 5-2 Front View

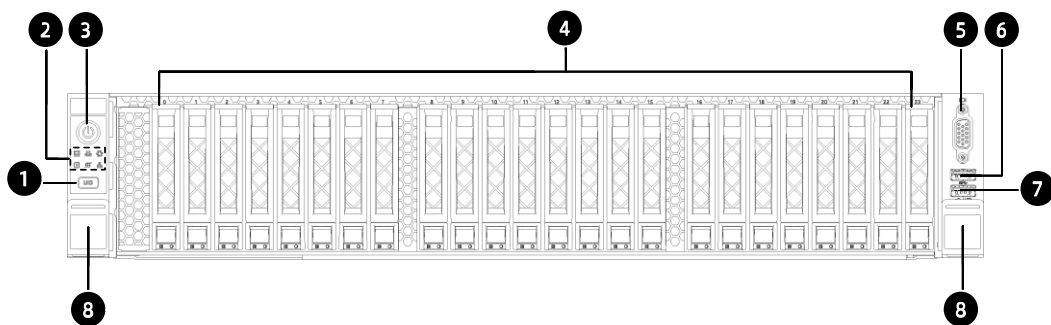












Table 5-2 Drive Modules

Item	Feature	Item	Feature
1	UID/BMC RST Button	5	VGA Port

Item	Feature	Item	Feature
2	LEDs	6	USB 3.0 Port
3	Power Button	7	USB 2.0/LCD Port
4	2.5" Drive × 24	8	Quick Release Lever

5.1.3 LEDs and Buttons

Table 5-3 LEDs and Buttons

Item	Icon	Feature	Description
1		Power Button	Solid green = Power on state Solid orange = Standby state Long press 4 s to force a shutdown
2		System Status LED	Off = Normal Solid red = A failure occurs Flashing red = A warning occurs
3		Memory Status LED	Off = Normal Solid red = A failure occurs Flashing red = A warning occurs
4		Fan Status LED	Off = Normal Solid red = Failed to read the fan speed Flashing red = Speed reading is abnormal
5		Power Status LED	Off = Normal Solid red = A power failure occurs Flashing red = Power state is abnormal
6		System Overheat LED	Off = Normal Solid red = CPU/Memory is overheating
7		Network Status LED	Solid/Flashing green = Network connected Off = No network connection Note: It only indicates the working status of LOM (LAN on motherboard)
8		UID Button with LED	Solid blue = UID is turned on manually or by the system Flashing blue = KVM has been launched or firmware update in process Long press 6 s to force a BMC shutdown
9		OCP Hot-plug Button with Attention LEDs	OFF = OCP NIC card is normal ON = OCP NIC card is abnormal Flashing = OCP is being configured as per instructions
10		OCP Hot-plug Button with Power Status LEDs	OFF = OCP NIC card is powered off and pluggable ON = OCP NIC card is powered on and not pluggable Flashing = The hot-plug program is being configured and the OCP NIC card is not pluggable

5.2Rear Panel

Figure 5-3 Rear Panel

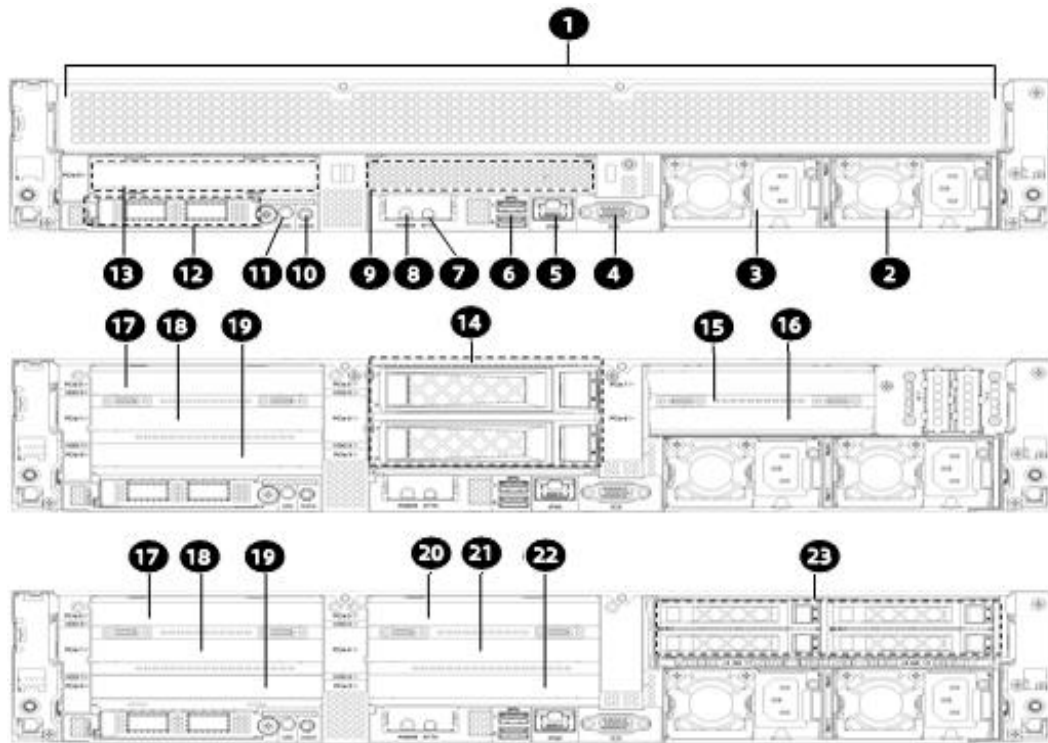


Table 5-4 Modules

Item	Feature	Item	Feature
1	GPU Module	13	PCIe0 Slot
2	PSU1	14	3.5-inch Drive × 2
3	PSUo	15	PCIe7 Slot
4	VGA Port	16	PCIe6 Slot
5	BMC Network Management Port	17	PCIe2 Slot
6	USB 3.0 Port	18	PCIe1 Slot
7	OCP Hot-plug Button with Attention LEDs	19	PCIe0 Slot
8	OCP Hot-plug Button with Power Status LEDs	20	PCIe5 Slot
9	Plate Capacitor	21	PCIe4 Slot
10	System/BMC Serial Port	22	PCIe3 Slot
11	UID Button with LED	23	2.5-inch Drive × 4
12	OCP NIC 3.0 Module		

5.2.1 2.5"/3.5" Drive Tray LEDs

Figure 5-4 Drive Tray LEDs

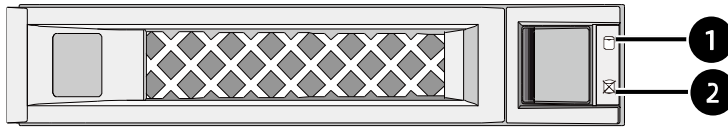


Table 5-5 LEDs

Item	Feature	Description
1	Activity Status LED	Solid green = Normal Flashing green = Read/write activities
2	Drive Fault LED	Solid red = Drive error or failure Solid blue = Drive is being located Solid pink = RAID rebuilding

5.2.2 PSU LEDs

Table 5-6 PSU LEDs

Item	PSU LED Status	Description
1	Solid green	Normal
2	Off	No AC power to PSU
3	Solid amber	A shutdown has occurred when the protection mechanism had been triggered
4	Flashing amber at 1 Hz	PSU continues operating after a warning event has occurred
5	Flashing green at 1 Hz	PSU operating in standby mode with AC input
6	Flashing green at 0.33 Hz (on for 2 seconds and off for 1 second)	PSU operating in cold redundant and sleep mode
7	Flashing green at 2 Hz	PSU operating in firmware update mode

5.3 Exploded View

Figure 5-5 Internal Top View

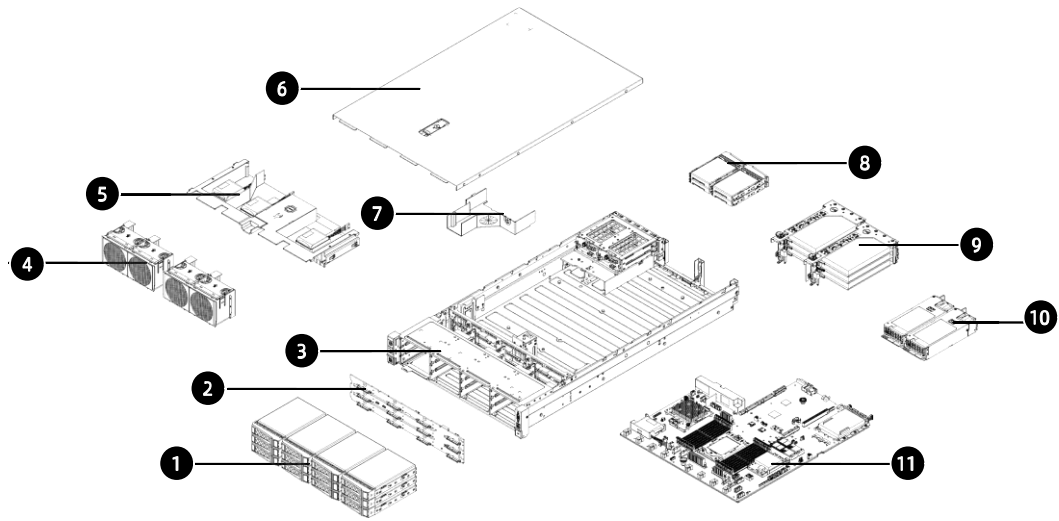
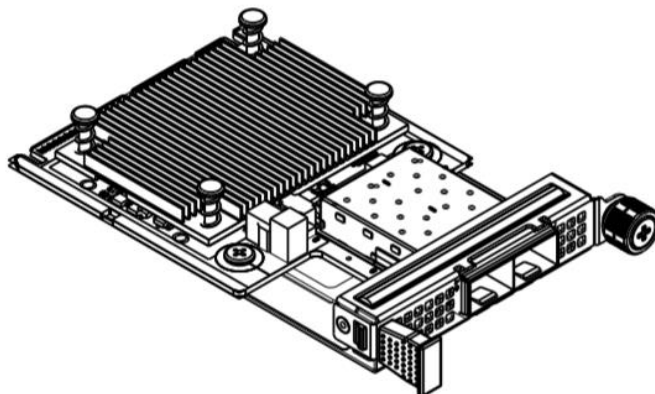


Table 5-7 Modules

Item	Feature	Item	Feature
1	Front Drive Module	7	Power Air Duct
2	Drive Backplane	8	Rear Drive Module
3	Chassis	9	Riser Card Module
4	Fan Modules	10	Power Supply Unit
5	Chassis Air Duct	11	Motherboard
6	Top Cover		

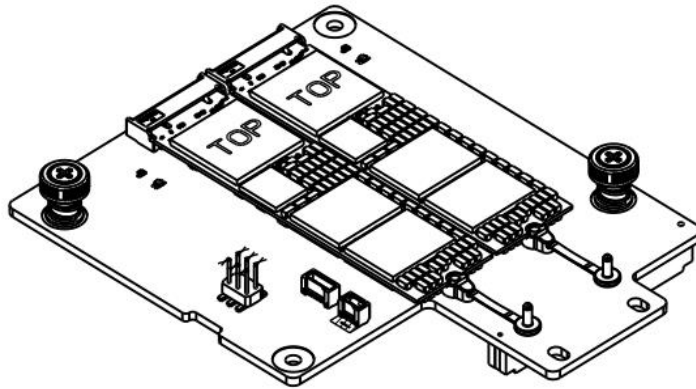
5.4 OCP NIC 3.0 Module

Figure 5-6 OCP NIC 3.0 Module



5.5x4 M.2 Riser Module

Figure 5-7 x4 M.2 Module



5.6 Motherboard Layout

Figure 5-8 Motherboard Connectors

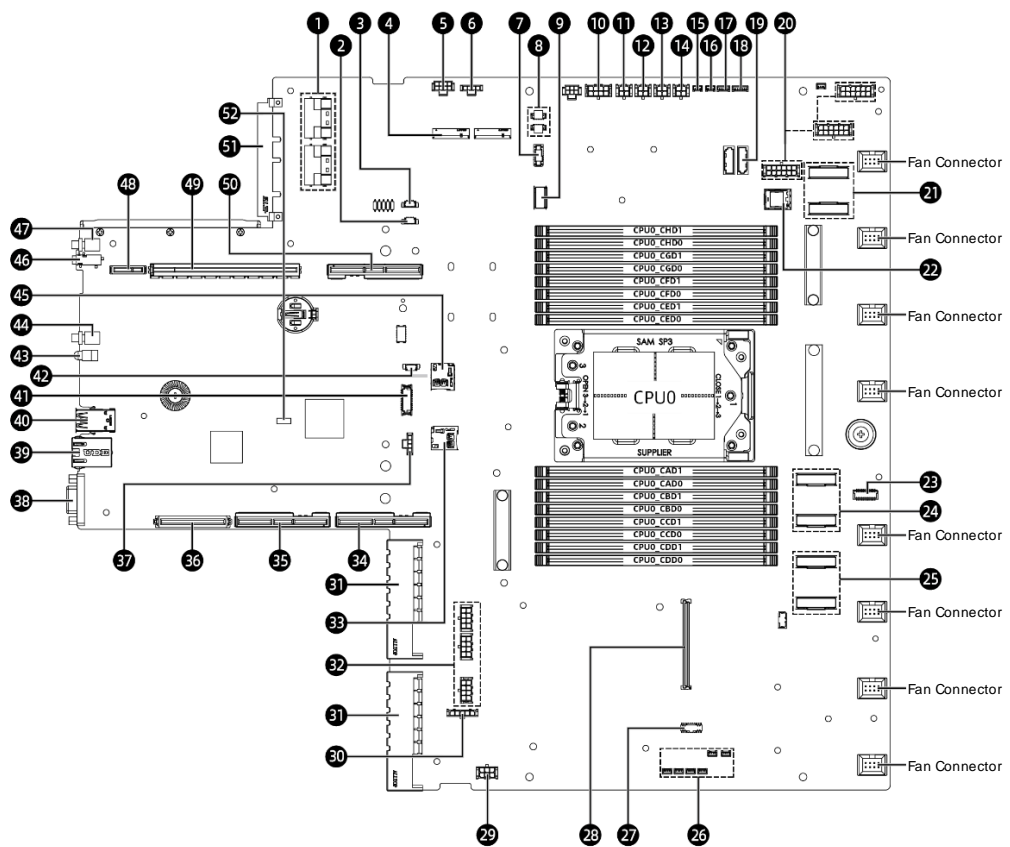


Table 5-8 Motherboard Modules

Item	Feature	Item	Feature
1	OCP 3.0 Slimline Connector	27	HDT Debug Connector
2	GPU ₂ I ² C Connector	28	OCP Card Connector
3	GPU ₄ I ² C Connector	29	GPU Riser/BP Power Connector
4	M.2. 0&1 Connector	30	Plate Capacitor Connector
5	Riser Power Connector in the middle	31	AC Power Connector
6	GPU Riser Power Connector	32	GPU Power Connector
7	Hot-swap NVMe I ² C Connector	33	TF Card Slot
8	100 Mbps CLK Connector × 2	34	Gen-Z 4C PCIe Po Connector
9	Front Right Ear Plate Connector	35	Gen-Z 4C PCIe P1 Connector
10	BP Power Connector	36	Riser Power Connector
11	Backplane1 Power Connector	37	GPU Riser2 Power Connector
12	Backplane2 Power Connector	38	VGA Port
13	Backplane0 Power Connector	39	mLAN Connector
14	Backplane3 Power Connector connecting GPU Riser1	40	USB Port
15	Backplane2 I ² C Connector	41	NCSI Connector
16	Backplane7 I ² C Connector	42	GPU Throttle Connector
17	PCIe G2 Port SGPIO Connector	43	OCP Hot-plug Button with Attention LEDs
18	PCIe Po Port SGPIO Connector	44	OCP Hot-plug Button
19	7-pin SATA Connector	45	BMC TF Card Slot
20	FP BP Power Connector × 3	46	Serial Port
21	PCIe G3 Port Slimline Connector	47	UID Button with LED
22	Mini SAS HD Connector	48	Riser Power Connector
23	Front Left Ear Plate Connector	49	x16 Slot PCIe P3 Port
24	PCIe G1 Port Slimline Connector	50	Gen-Z 4C PCIe P2 Connector
25	PCIe G0 Port Slimline Connector	51	OCP NIC 3.0 Slot
26	Backplane I ² C Connector	52	CLR_CMOS Jumper Cap

5.7 Drive Backplane

Table 5-9 Drive Backplane

Type	Description	Support
Front 4 × 3.5" SAS/SATA Backplane	Backplane_Inspur_4 × 3.5" SAS_SATA	SAS/SATA drives via RAID and SAS cards Onboard SATA NVMe not supported
Front 4 × 3.5" SAS_SATA_NVMe Backplane	Backplane_Inspur_4 × 3.5" SAS_SATA_NVMe_GE N4	SAS/SATA drives via RAID and SAS cards Onboard SATA 4 × NVMe
Front 12 × 3.5" SAS/SATA Pass-through Backplane	Backplane_Inspur_SAS_SATA_12 × 3.5"	SAS/SATA drives via RAID and SAS cards Onboard SATA NVMe not supported
Front 12 × 3.5" SAS/SATA Expander Backplane	Backplane_Inspur_Expander_12 × 3.5"	SAS/SATA drives via RAID and SAS cards A cascaded rear backplane supports up to 4 drives Onboard SATA not supported NVMe not supported
Front 8 × 2.5" SAS_SATA_NVMe Backplane	Backplane_Inspur_SAS_SATA_NVMe_8 × 2.5"	SAS/SATA drives via RAID and SAS cards Onboard SATA NVMe drives
Rear 2 × 2.5" SAS/SATA Backplane	Backplane_Inspur_2 × 2.5" SAS_SATA	SAS/SATA drives via RAID and SAS cards Onboard SATA NVMe not supported
Rear 2 × 2.5" NVMe Backplane	Backplane_Inspur_NVMe_2 × 2.5" 8 × Slim	SAS/SATA drives via RAID and SAS cards not supported Onboard SATA not supported NVMe drives
Rear 2 × 3.5" SAS/SATA	Backplane_Inspur_2 × 3.5" SAS_SATA	SAS/SATA drives via RAID and SAS cards Onboard SATA NVMe not supported

6 System Specifications

Table 6-1 System Specifications

Item	Description
Form Factor	2U rack server
Processor	Supports 1 AMD® Milan® scalable processor: <ol style="list-style-type: none"> Up to 64 cores and 128 threads Max. Turbo frequency at 3.7 GHz L3 cache up to 32 MB (shared by 8 cores) TDP up to 280 W
Memory	Up to 16 DIMMs 8 memory channels per processor, and up to 2 memory slots per channel Up to 3,200 MT/s RDIMMs, LRDIMMs and NVDIMMs supported ECC, memory mirroring and memory rank sparing
Storage	Front: <ol style="list-style-type: none"> 12 × 3.5" hot-swap SATA/SAS/NVMe drive 24 × 2.5" hot-swap SATA/SAS/NVMe drive Internal: <ol style="list-style-type: none"> Up to 1 × TF card Up to 2 × SATA M.2 drive Up to 2 × PCIe x4 M.2 drive
Storage Controller	RAID card controller SAS card controller 14 × SATA connector (2 × 7-pin SATA + 1 × Mini SAS HD + 1 × Gen-Z)
Network	1 × optional OCP NIC 3.0 module (1/10/25/40/100 Gbps) Supports standard 1/10/25/40/100 Gbps NIC cards
I/O Expansion Slots	Up to 6 × standard PCIe expansion slot, including 2 × full-height half-length x16 slot and 4 × full-height half-length x8 slot, or 3 × full-height half-length PCIe x16 slot and 2 × full-height half-length PCIe 4.0 x8 slot
Ports	2 × rear USB 3.0 port + 1 × front USB 3.0 port + 1 × front USB 2.0 port 1 × front VGA port 1 × rear VGA port 1 × rear BMC serial port
Fans	4 × hot-swap 8056 fan with N+1 redundancy
Power Supply	Output power of 800 W, 1,300 W, 1,600 W, 2,000 W or above in 1+1 redundancy
System Management	Integrated with 1 × independent 1,000 Mbps network port, dedicated for IPMI remote management

Item	Description
Operating System	Windows Server 2019 SLES 12.5, SLES 15.2 RHEL 8.3 Ubuntu 18.04, Ubuntu 20.04 CentOS 8.3 Oracle Linux 7.9 VMware ESXi 6.7 U3, VMware ESXi 7.0 U1.

Table 6-2 Physical Specifications

Dimensions	With mounting ears: 478.8 × 87 × 811.7 mm (18.85 × 3.43 × 31.96 in) (W × H × D) Without mounting ears: 435 × 87 × 780 mm (17.13 × 3.43 × 30.71 in) (W × H × D)
Outer Packaging Dimensions	1,031 × 651 × 295 mm (40.59 × 25.63 × 11.61 in) (L × W × H)
Weight	12 × 3.5" configuration (Rear 2.5-inch drives included) <ul style="list-style-type: none"> 1. Net weight (excluding packaging): 28 kg (61.73 lb) 2. Gross weight (including packaging): 37.5 kg (82.67 lb) (chassis + packaging box + rails + accessory box) 25 × 2.5" configuration (Rear 2.5-inch drives included) <ul style="list-style-type: none"> 1. Net weight (excluding packaging): 25.5 kg (56.22 lb) 2. Gross weight (including packaging): 35 kg (77.16 lb) (chassis + packaging box + rails + accessory box)
Temperature	Operating: 5°C to 40°C (41°F to 104°F) ^{1,2,3} Storage (including packaging): -40°C to +70°C (-40°F to +158°F) Storage (excluding packaging): -40°C to +55°C (-40°F to +131°F)
Humidity	Operating: 5–90% RH Storage (including packaging): 5–95% RH Storage (excluding packaging): 5–95% RH Maximum humidity gradient (operation and storage): 40% RH/H
Noise (Bels) (Sound power level)^{4,5,6,7}	Idle <ul style="list-style-type: none"> 1. LWAd: 6.25 Bel for normal configuration 2. LpAm: 49.3 dBA for normal configuration Operating <ul style="list-style-type: none"> 1. LWAd: 7.7 Bel for normal configuration 2. LpAm: 63.8 dBA for normal configuration
Height	5–35°C (41–95°F) at 0–914 m (0–3,000 ft) Every 305 m increase in the altitude above sea level reduces the operating temperature range by 1.0°C (a 1.8°F drop per 1,000 ft)

Note 1: Not all configurations support an operating temperature range of 5–40°C (41–104°F). The GPU configuration supports an operating temperature range of 10–35°C (50–95°F).

Note 2: Standard operating temperature:

10–35°C at sea level (50–95°F). Every 305 m increase in the altitude above sea level reduces the operating temperature range by 1.0°C (a 1.8°F drop per 1,000 ft). The maximum operating altitude is 3,050 m (10,000 ft). Please keep the product away from direct sunlight. The maximum rate of change is 20°C/h (36°F/h). The operating altitude and maximum rate of temperature change vary with different system configurations.

Any fan failure or operations above 30°C (86°F) may lead to system performance degradation.

Note 3: This document lists the weighted sound power level (LWAd) and the weighted sound pressure level (LpAm) of the product at an operating temperature of 23°C (73.4°F). The values were reported according to the ISO 7779 (ECMA 74) noise measurement standards and ISO 9296 (ECMA 109). The listed sound levels are applicable to general shipping configurations and other options may increase the volume. Please contact your sales representative for more information.

Note 4: The sound levels shown here were measured based on specific testing configurations. The sound level will vary with different system configurations. Values are subject to change without notice and are for reference only.

Note 5: The sample (model) test assessments meet the referenced product specifications. This product or product series is eligible to have appropriate compliance labels and declarations.

Note 6: All sound levels listed are for standard shipping configurations and other system configurations may increase the volume.

Table 6-3 Operating Temperature Specifications

	Front Drive	3.5" HDD in the middle	GPU	Air Duct	CPU Heatsink
Maximum operating temperature : 35°C (95°F)	8 × 3.5" HDD	None	Single-width GPU	2U Air Duct	Standard 2U heatsink
	8 × 3.5" HDD		Dual-width GPU	1U Air Duct	225 W ≤ CPU Power < 280 W With 1U T-shape heatsink
	8 × 3.5" HDD				CPU Power < 225 W With standard 1U heatsink
	12 × 3.5" HDD	Yes	None	1U Air Duct	225 W ≤ CPU Power < 280 W With 1U T-shape heatsink
	12 × 3.5" HDD		None		CPU Power < 225 W With standard 1U heatsink
	12 × 3.5" HDD	None	None	2U Air Duct	Standard 2U heatsink
	24 × 2.5" NVMe Drive	None	None	2U Air Duct	Standard 2U heatsink

- The 280 W CPU and 4 × rear 3.5" HDD configuration is only supported when the top cover is perforated.
- The 280 W CPU or GPU configuration requires a V00308500000000 fan, while other configurations require a V00302P000000000 fan.
- GPU configuration: The configuration of 3.5" HDD in the middle is not supported. Up to 8 × front 3.5" HDD when the top cover is perforated. Up to 4 × 3.5" HDD when the top cover is not perforated.

- When a half-height and half-length GPU (A10, T4) is adopted in the configuration, do not install the GPU right behind the CPU.
- The maximum operating temperature supported by the normal configurations is 35°C (95°F). If the server is used under a higher ambient temperature, certain configurations should be reviewed and assessed.

Table 6-4 Industry Standard Compliance

ACPI 6.1 Compliant
PCIe 4.0 Compliant
WOL Support
SMBIOS 3.1
UEFI 2.6
Redfish API
IPMI 2.0
Microsoft® Logo Certifications
PXE Support
Advanced Encryption Standard (AES)
SNMP v3
TLS 1.2
Active Directory v1.0
TPM 1.2/2.0
USB 2.0/3.0 Compliant

7 Compatibility List



NOTE

The compatibility list was updated in November 2021. For the latest compatibility configuration and the parts and models not listed in this manual, please contact Inspur Customer Service.

7.1 Processor

NF3280A6 supports one AMD Milan processor.

Table 7-1 CPU

Model	Core	Base Frequency	Max Turbo Frequency	Cache	TDP
7763	64	2,450 MHz	3,500 MHz	256 MB	280 W
7713	64	2,000 MHz	3,675 MHz	256 MB	225 W
7713P	64	2,000 MHz	3,675 MHz	256 MB	225 W
7663	56	2,000 MHz	3,500 MHz	256 MB	240 W
7643	48	2,300 MHz	3,600 MHz	256 MB	225 W
7543	32	2,800 MHz	3,700 MHz	256 MB	225 W
7543P	32	2,800 MHz	3,700 MHz	256 MB	225 W
7513	32	2,600 MHz	3,650 MHz	128 MB	200 W
7443	24	2,850 MHz	4,000 MHz	128 MB	200 W
7443P	24	2,850 MHz	4,000 MHz	128 MB	200 W
7413	24	2,650 MHz	3,600 MHz	256 MB	180 W
7343	16	3,200 MHz	3,900 MHz	256 MB	190 W
7313	16	3,000 MHz	3,700 MHz	256 MB	155 W
7313P	16	3,000 MHz	3,700 MHz	256 MB	155 W
75F3	32	2,950 MHz	4,000 MHz	256 MB	280 W
74F3	24	3,200 MHz	4,000 MHz	256 MB	240 W
73F3	16	3,500 MHz	4,000 MHz	256 MB	240 W
72F3	8	3,700 MHz	4,100 MHz	256 MB	180 W

7.2 Memory

NF3280A6 supports up to 16 DDR4 DIMMs. Each processor supports 8 memory channels and each channel supports 2 memory slots. Supports RDIMM\LRDIMM.

Table 7-2 Memory List

Memory Type	Max Memory Capacity	Description
RDIMM	16 × 16 GB	Memory_SA_16G_DDR4-3200ER_1R4_D18F Memory_MT_16G_DDR4-3200ER_1R4_E18F Memory_SK_16G_DDR4-3200ER_1R4_C18J Memory_SK_16G_DDR4-3200ER_1R4_D18J Memory_SA_16G_DDR4-3200ER_2R8_D18F Memory_MT_16G_DDR4-3200ER_2R8_E18F Memory_SK_16G_DDR4-3200ER_2R8_C18J Memory_SK_16G_DDR4-3200ER_2R8_D18J
RDIMM	16 × 32 GB	Memory_SA_32G_DDR4-3200ER_2R4_D36F Memory_MT_32G_DDR4-3200ER_2R4_E36F Memory_SK_32G_DDR4-3200ER_2R4_C36J Memory_SK_32G_DDR4-3200ER_2R4_D36J Memory_SA_32G_DDR4-3200ER_1R4_A18F Memory_SA_32G_DDR4-3200ER_2R8_A18F Memory_MT_32G_DDR4-3200ER_1R4_E18F Memory_SK_32G_DDR4-3200ER_2R8_A18J Memory_SK_32G_DDR4-3200ER_2R8_C18J Memory_MT_32G_DDR4-3200ER_2R8_E18F
RDIMM	16 × 64 GB	Memory_SA_64G_DDR4-3200ER_2R4_A36F Memory_SA_64G_DDR4-3200ER_2R4_B36F Memory_MT_64G_DDR4-3200ER_2R4_E36F Memory_SK_64G_DDR4-3200ER_2R4_C36J Memory_SK_64G_DDR4-3200ER_2R4_A36J



CAUTION

The server does not support mixed use of DIMMs of different types and specifications.

Table 7-3 Common DIMM Insertion Methods

Memory Quantity	CPU ₀															
	CD		CC		CB		CA		CE		CF		CG		CH	
	D1	D0	D1	D0	D1	D0	D1	D0	D0	D1	D0	D1	D0	D1	D0	D1
1			●													
2	●		●													
4	●		●										●			●
6	●		●				●			●			●			●
8	●		●		●		●			●		●		●		●
16	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

7.3 Storage

7.3.1 SATA/SAS Drives

Table 7-4 Drive Options

Model	Speed in rpm	Capacity
2.5" SAS Drive	10K	Drive_S_1.2KS_ST1200MM0009_10k2_12_No05_LC Drive_S_600S_ST600MM0009_10k2_12_No05_LC Drive_T_2.4KS_AL15SEB24EQ_10k2_12_1403 Drive_T_1.8KS_AL15SEB18EQ_10k2_12_1403 Drive_T_1.2KS_AL15SEB120N_10k2_12_1403 Drive_T_600S_AL15SEB060N_10k2_12_1403
3.5" SATA Drive	7.2K	Drive_S_16KT_ST16000NM001G_7.2K3_6_SCB3 Drive_S_14KT_ST14000NM001G_7.2K3_6_SCB3 Drive_S_12KT_ST12000NM001G_7.2K3_6_SCB3 Drive_S_10KT_ST10000NM001G_7.2K3_6_SCB3 Drive_S_8KT_ST8000NM000A_7.2K3_6_SCo3 Drive_S_6KT_ST6000NM021A_7.2K3_6_SCo3 Drive_S_4KT_ST4000NM000A_7.2K3_6_TCo3 Drive_S_2KT_ST2000NM000A_7.2K3_6_TCo3 Drive_W_16KT_WUH721816ALE6L4_7.2K3_6_232 Drive_W_14KT_WUH721414ALE6L4_7.2K3_6 Drive_W_12KT_HUH721212ALE600_7.2K3_6_6Bo Drive_W_10KT_WUS721010ALE6L4_7.2K3_6_9Co Drive_W_8KT_HUS728T8TALE6L4_7.2K3_6_4Jo Drive_T_14KT_MG07ACA14TE_7.2K3_6_4305 Drive_T_12KT_MG07ACA12TE_7.2K3_6_4305

7.3.2 SSDs

Table 7-5 SSD Options

Model	Capacity
S4510 SATA SSD	Drive_I_240TD_SSDSC2KB240G8_T2_6_132_S451 Drive_I_480TD_SSDSC2KB480G8_T2_6_132_S451 Drive_I_960TD_SSDSC2KB960G8_T2_6_132_S451 Drive_I_1.92KTD_SSDSC2KB019T8_T2_6_132_451 Drive_I_3.84KTD_SSDSC2KB038T8_T2_6_132_451 Drive_I_7.68KTD_SSDSC2KB076T8_T2_6_132_451
5300PRO SATA SSD	Drive_MT_240TD_MTFDDAK240TDS_T2_6_001_PRO Drive_MT_480TD_MTFDDAK480TDS_T2_6_001_PRO Drive_MT_960TD_MTFDDAK960TDS_T2_6_001_PRO Drive_MT_1.92KTD_MTFDDAK1T9TDS_T2_6_001_PR Drive_MT_3.84KTD_MTFDDAK3T8TDS_T2_6_401_PR
S4610 SATA SSD	Drive_I_240TD_SSDSC2KG240G8_T2_6_132_S461 Drive_I_480TD_SSDSC2KG480G8_T2_6_132_S461 Drive_I_960TD_SSDSC2KG960G8_T2_6_132_S461 Drive_I_1.92KTD_SSDSC2KG019T8_T2_6_132_461 Drive_I_3.84KTD_SSDSC2KG038T8_T2_6_132_461
PM883 SATA SSD	Drive_SA_3.84KTD_MZ7LH3T8HMLT_T2_6_7904Q Drive_SA_1.92KTD_MZ7LH1T9HMLT_T2_6_7904Q Drive_SA_960TD_MZ7LH960HAJR_T2_6_7904Q_PM Drive_SA_480TD_MZ7LH480HAHQ_T2_6_7904Q_PM

Model	Capacity
	Drive_SA_240TD_MZ7LH240HAHQ_T2_6_7904Q_PM

7.3.3 U.2 NVMe SSDs

Table 7-6 U.2 NVMe SSDs

Model	Capacity
P5510 NVMe U.2	Drive_I_3.84KU2D_SSDPF2KX038TZ_T2_16_100_5 Drive_I_7.68KU2D_SSDPF2KX076TZ_T2_16_100_5
P4510 NVMe U.2	Drive_I_1KU2D_SSDPE2KX010T8_T2_8_173_P4510 Drive_I_2KU2D_SSDPE2KX020T8_T2_8_173_P4510 Drive_I_4KU2D_SSDPE2KX040T8_T2_8_173_P4510 Drive_I_8KU2D_SSDPE2KX080T8_T2_8_173_P4510
P4610 NVMe U.2	Drive_I_1.6KU2D_SSDPE2KE016T8_T2_8_173_461 Drive_I_3.2KU2D_SSDPE2KE032T8_T2_8_173_461 Drive_I_6.4KU2D_SSDPE2KE064T8_T2_8_173_461 Drive_I_7.68KU2D_SSDPE2KE076T8_T2_8_173_46
PM9A3	Drive_SA_960U2D_MZQL2960HCJR_T2_16_53C2Q Drive_SA_1.92KU2D_MZQL21T9HCJR_T2_16_53C2Q Drive_SA_3.84KU2D_MZQL23T8HCLS_T2_16_53C2Q



IMPORTANT

For the models not listed in the above table, please contact Inspur Customer Service.

7.3.4 M.2 SSDs

Table 7-7 NVMe M.2 SSDs

Model	Capacity	Max. Qty.
S4510	240 GB	2
S4510	480 GB	2
S4510	960 GB	2



IMPORTANT

For the models not listed in the above table, please contact Inspur Customer Service.

7.3.5 PCIe M.2 Drives

Table 7-8 PCIe M.2 Drives

Model	Capacity	Max. Qty.
PM983	960 GB	2
PM983	1.92 TB	2
PM983	3.84 TB	2



IMPORTANT

For the models not listed in the above table, please contact Inspur Customer Service.

7.3.6 Mixed Drive Configurations

- Supports the mixed configuration of 4 front 3.5- or 2.5-inch SAS/SATA drives and 4 front 2.5-inch NVMe drives.
- Supports the mixed configuration of 8 front 3.5- or 2.5-inch SAS/SATA drives and 4 front 2.5-inch NVMe drives.
- Supports the mixed configuration of 4 front 3.5- or 2.5-inch SAS/SATA drives and 8 front 2.5-inch NVMe drives.
- Supports the mixed configuration of 8 front 2.5-inch SAS/SATA drives and 16 front 2.5-inch NVMe drives.

7.4 Drive Installation Layout

7.4.1 HDD Installation Sequence

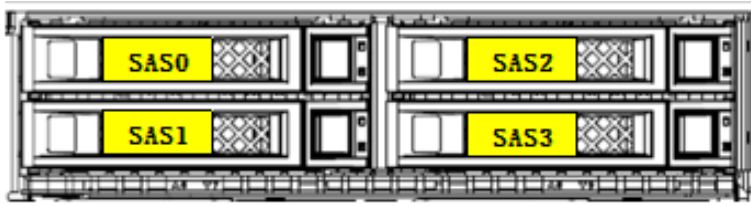
Figure 7-1 12 × 3.5"



Figure 7-2 (8 × 2.5") × 3

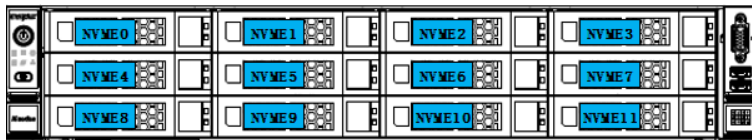


Figure 7-3 Rear panel (2 × 2.5") × 2:

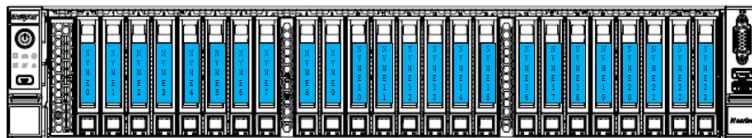


7.4.2 NVMe Drive Installation Sequence

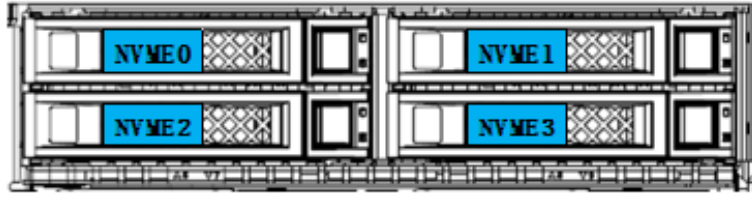
- Backplane: (4 × 3.5" _4 × NVMe) × 3 (The connectors for NVMe drives on the backplane are compatible with SAS/SATA drives)
 - Only NVMe drives
Installed in sequence from NVMe0 to NVMe11
 - Both HDDs and NVMe drives
HDD: Install in the sequence from NVMe0 to NVMe11
NVMe drives: Install in the sequence from NVMe11 to NVMe0



- Backplane: (8 × 2.5" _8 × NVMe) × 1 (The connectors for NVMe drives on the backplane are compatible with SAS/SATA drives)
 - Only NVMe drives
Installed in sequence from NVMe0 to NVMe7
 - Both HDDs and NVMe drives
HDD: Install in the sequence from NVMe0 to NVMe7
NVMe drives: Install in the sequence from NVMe7 to NVMe0



- Backplane: (2 × 2.5" NVMe) × 2 (The backplane only supports NVMe drives)
 - Only NVMe drives
Install in the sequence from NVMe0 to NVMe3



7.5 RAID/SAS Card

Table 7-9 RAID/SAS Cards

Type	Manufacturer	Description	Super Capacitor Module
SAS Card	Inspur	SAS Card_INSPUR_SAS3008+IR+PCle3.0	No
		SAS Card_Inspur_PM8222_SmartHBA_8_SAS3_PCLE3	No
		SAS Card_Inspur_PM8222_PM8222_8_SAS3_PCLE	No
	LSI	SAS Card_L_8Ro_3408IT_HDM12G_PCLE3_Mezz_S	No
RAID Card	Inspur	RAID Card_Inspur_PM8204_RA_8_2GB_SAS3_PCLE3	No
	LSI	RAID Card_L_8_9361-8i_2G_HDM12G_PCLE3	Yes
		RAID Card_L_16Ro_9460-16i_4GB_HDM12G_PCLE3	Yes
		RAID Card_L_8Ro_3508_4GB_HDM12G_PCLE3_Mezz_S	Yes
		RAID Card_L_8Ro_9361-8i_1G_HDM12G_PCLE3	Yes

7.6 NIC Card

Table 7-10 OCP NIC 3.0 Cards

Type	Model and Description	Speed (Gbps)	Quantity
OCP3.0	NIC Card_SND_1G_I350_RJ_OCP3x4_2_XR	1	2
	NIC Card_Inspur_Andes-M6_X710_10G_LC_OCP3x8_2	10	2
	NIC Card_M_25G_MCX562A-ACAB_LC_OCP3x16_2_XR	25	2
	NIC Card_M_25G_MCX4621A-ACAB_LC_OCP3x8_2_XR	25	2
	NIC Card_M_100G_MCX566ACDAB_LC_OCP3x16_2_XR	100	2

Table 7-11 Standard PCIe NIC Cards

Type	Model and Description	Speed (Gbps)	Quantity
PCI-E	NIC Card_I_10G_X710DA2_LC_PClEx8_2_XR	10	2

Type	Model and Description	Speed (Gbps)	Quantity
	NIC Card_Inspur_Fortville_X710_10G_LC_PClx8_2	10	2
	NIC Card_I_10G_X550T2_RJ_PClx4_2_XR	10	2
	NIC Card_M_25G_MCX512A-ACAT_LC_PClx8_2_XR	25	2
	NIC Card_Inspur_Andes-M6_E810_25G_LC_PClx8_2	25	2
	NIC Card_I_25G_XXV710DA2_LC_PClx8_2_XR_limit	25	2
	NIC Card_I_40G_XL710_LC_PClx8_2_MM	40	2
	NIC Card_M_100G_MCX516A-CDAT_LC_PClx16_2P_XR	100	2
	NIC Card_I_100G_E810CQDA2_LC_PClx16_2_XR	100	2

 NOTE

A server supports up to six NICs of the same type, six 1 Gbps/10 Gbps NICs of different types, or four 25 Gbps (or above) NICs. It also supports mixed use of NICs of different types.

7.7 FC HBA Card

Table 7-12 FC HBA Cards

Type	Manufacturer	Model and Description
HBA Card	Emulex	HBA Card_E_8R2_LPE31002-M6_FC16G_PClx

7.8 Graphics Card and GPU

Table 7-13 Graphics Card

Type	Model and Description	Max. Qty.
GPU Card	GPU_NV_16GB_Tesla-T4_256b_P	4
	GPU_NV_24G_NVIDIA-A10_384b_PClxMP	4
	GPU_NV_40G_Tesla-A100-PCl_512b_MP	4

 NOTE

This graphics card uses 16 lanes of the PCIe bus, and needs to be inserted into the x16 riser card slot.

7.9 Power Supply

Supports 1+1 redundant hot-swap Intel CRPS PSUs, up to 2 PSUs, meeting general electrical and structural design requirements. The PSUs can be inserted into the power bay and locked automatically, enabling tool-free maintenance. A CRPS PSU is 80 PLUS Platinum rated, and offers various output powers, allowing customers to choose based on the actual configuration.

- The following rated 110–230 VAC and 240 VDC power supplies of 1+1 redundancy are supported:
 - 800 W Platinum PSU: 800 W (110 VAC), 800 W (230 VAC), 800 W (240 VDC for China)
 - 1,300 W Platinum PSU: 1,000 W (110 VAC), 1,300 W (230 VAC), 1,300 W (240 VDC for China)
 - 1,600 W Platinum PSU: 1,000 W (110 VAC), 1,600 W (230 VAC), 1,600 W (240 VDC for China)
 - 2,000 W Platinum PSU: 1,000 W (110 VAC), 2,000 W (230 VAC), 2,000 W (240 VDC for China)



NOTE

At a rated voltage of 110 VAC, a 1,300 W or higher PSU will be derated to 1,000 W.

Input voltage range:

- 110–230 VAC: 90–264 V
- 240 VDC: 180–320 V

- The following PSUs (rated 240–336 VDC) with 1+1 redundancy are supported:

- 800 W 336 VDC PSU: 800 W (240 VDC), 800 W (336 VDC)
- 1,300 W 336 VDC PSU: 1,300 W (240 VDC), 1,300 W (336 VDC)

Input voltage range:

- 240–336 VDC: 190–400 V

- The following rated –48 VDC PSUs with 1+1 redundancy are supported:

- 800 W –48 VDC PSU: 800 W (–48 VDC)
- 1,300 W –48 VDC PSU: 1,300 W (–48 VDC)

Input voltage range:

- –48 VDC: –40 V to –72 V

7.10 Operating System

Table 7-14 Operating System

OS Manufacturer	OS Version
Windows	Windows server 2019
Red Hat	Red Hat Enterprise 8.3
SUSE	SUSE12.5
	SUSE15.2
Centos	Centos_8.3
Oracle Linux	Oracle Linux7.9
ESXi 6.X	Vmware ESXi 6.7 U 3
	Vmware ESXi 7.0 U 1
Ubuntu20	Ubuntu20.04
	Ubuntu18.04

8 Configuration Tips

- Onboard SATA and RAID/SAS cards cannot be selected at the same time.
- RAID/SAS cards with different chip models cannot be selected at the same time.
- When SATA drives are configured on the backplanes equipped with expander chips, RAID/SAS cards are required while the connection to onboard SATA connectors is unsupported.

RAID cards of some models are not supported due to the structural limits of PCIe0 and PCIe3 slots at the rear panel.

9 System Management

9.1 Intelligent Baseboard Management System (BMC)

The BMC, a remote server management system, was developed by Inspur and supports mainstream management specifications in the industry such as IPMI 2.0 and Redfish 1.0.2. It features higher operational reliability and excellent serviceability for different customer scenarios. It provides comprehensive and accurate fault diagnosis capabilities and enhanced security above industry average.

It supports the following features:

- IPMI 2.0
- Redfish 1.0.2
- Simple network management protocols (SNMP v1/v2c/v3)
- HTML5/Java remote consoles (keyboards, mouses, and videos)
- Remote virtual media
- BMC login on web browsers
- Intelligent fault diagnosis system

Table 9-1 BMC Specifications

Item	Description
Management Interfaces	Supports extensive remote management interfaces and is applicable to various server O&M scenarios. The supported interfaces include: <ol style="list-style-type: none">1. IPMI2. SSH CLI3. SNMP4. HTTPS5. Web GUI6. Redfish7. RESTful8. DCMI9. Syslog
Intelligent Fault Location	With IDL, a fault diagnosis system developed in-house at Inspur, it provides comprehensive and accurate hardware fault location capabilities, and outputs detailed fault causes and handling suggestions.
Alert Management	Supports rich automatic remote alarm capabilities, including SNMP Trap (v1/v2c/v3), email alarms, syslog remote alarms, and other proactive alarming mechanisms to ensure 24 × 7 device reliability.

Item	Description
Remote Console KVM	Supports HTML5- and Java-based remote consoles, supports remotely taking over the display/mouse/keyboard of the server, and provides highly available remote management capabilities without on-site operations.
Virtual Network Console (VNC)	Supports mainstream third-party VNC clients without relying on Java and improves management flexibility.
Remote Virtual Media	Links local devices, images, USB devices, and folders to BMC through the network so that BMC can intelligently mount the devices to the server, achieving remote media virtualization and simplifying system installation, file sharing, and other O&M tasks.
Web GUI	Features a visual management interface developed by Inspur, provides comprehensive display of server information and status, and offers easy-to-use O&M buttons.
Downtime Screenshotting and Common Screenshotting	Supports automatic screenshotting during downtime to capture the last screen before downtime, and provides a screenshotting function, which can quickly capture the display to facilitate regular inspections.
Dual Flash and Dual Image	Supports dual flash and dual image with automatic flash failover upon software faults or flash damage, improving operational reliability.
Power Capping	Supports power capping, increasing deployment density and reducing energy consumption.
IPv4/IPv6	Supports both IPv4 and IPv6, enhancing network deployment flexibility.
Adaptation of Management Network Ports	Supports adaptation of dedicated management network ports and network controller sideband interfaces (NC-SI), and provides customers with flexible network deployment solutions for different management network deployment scenarios.
ISBMC Self-Diagnosis and Self-Recovery System	Supports the reliable dual watchdog mechanism for hardware and software, enabling automatic restoration of abnormal programs to normal under extreme BMC situations. Provides a thermal protection mechanism, which is automatically triggered when a BMC program is abnormal to ensure that the fan operates at a safe speed to avoid overheating of the entire system. Supports self-diagnosis of processors, memory modules, and storage devices of ISBMC, and automatically cleans up the workload and restores to normal when the device consumption rate is too high.
Power Supply Control	Supports virtual power buttons for startup, shutdown, restart, and restart after shutdown.
UID LED and Remote Control LED	Supports remote lighting of the unit identification (UID) LED for locating the server in the server room, and supports remote control LED. The UID LED flashes when a user remotely logs in through the web, KVM, or SSH to inform the on-site personnel that an administrator is accessing the server.
Secure Firmware Upgrade	Supports firmware upgrades based on secure digital signatures, unexpected upgrade prevention mechanism for different manufacturers and models, and firmware upgrades of BMC/BIOS/CPLD/PSU and other devices.
Serial Port Redirection	Supports remote redirection of system serial ports, BMC serial ports, and other serial ports, and directs the server-side serial port output to the local administrator through the network for server debugging.
Storage Information Display	Supports display of RAID logical array information and drive information, and remote RAID formation for improved deployment efficiency.

Item	Description
User Role Management	Allows granular user management based on user roles and flexible creation of user roles with different permissions, and provides detailed user roles to allow administrators to grant different permissions to O&M personnel.
Security Features	Adopts the industry-leading Inspur server security baseline standard V2.0, and provides secure and reliable algorithms for SSH, HTTPS, SNMP, and IPMI, and has capabilities including secure upgrade and boot as well as security reinforcement mechanisms such as anti-replay, anti-injection, and anti-brute force.

9.2 Inspur Physical Infrastructure Manager (ISPIM)

The NF3280A6 server is compatible with the latest version of Inspur Physical Infrastructure Manager (ISPIM).

ISPIM is a next-generation infrastructure O&M management platform for industry data centers. Based on cutting-edge O&M concepts, ISPIM provides users with leading and efficient overall management solutions for data centers to ensure the advancement of their infrastructure management. This platform provides a rich set of functions such as centralized resource management, in-depth fault diagnosis, second-level performance monitoring, intelligent energy consumption management, 3D automatic topology, and stateless automatic deployment. With these functions, users can implement central O&M of servers, storage devices, network devices, security devices, and edge devices, effectively improving O&M efficiency, reducing O&M costs, and ensuring the secure, reliable, and stable operation of data centers. ISPIM has the following key features:

- Lightweight deployment for multiple scenarios and full lifecycle management of devices
- High reliability and on-demand node expansion for data collection at 1–N nodes
- Intelligent asset management and real-time tracking of asset changes
- Comprehensive monitoring for overall business control
- Intelligent fault diagnosis for reduced correction time
- Second-level performance monitoring for real-time status control of devices
- Batch upgrade, configuration, and deployment for reduced launch time
- Version management for improved version management efficiency
- Standardized northbound interfaces for easy integration and interfacing

Table 9-2 ISPIM System Specifications

Item	Description
Centralized Device Management	Supports centralized management of network-wide devices, including servers (covering the complete Inspur server family, including general rack servers, AI servers, blade servers, all-in-ones and other high-end server products, and third-party servers), storage devices (Inspur general disk arrays, distributed storage devices, and storage devices of other manufacturers), and network devices (Inspur switches, third-party switches, and third-party firewall devices).
Monitoring Management	Supports centralized display, search, and blocking of device alarms, and email notifications, and supports the creation of alarm rules, notification

Item	Description
	rules, and blocking rules, alarm redefinition, alarm forwarding and southbound settings, device performance monitoring, and distributed monitoring.
Stateless Computing	Supports BMC/BIOS upgrade and configuration of Inspur servers, RAID configuration of Inspur servers, automatic hardware baseline management, and file repository upgrade.
Operating System Deployment	Supports batch deployment of operating systems through the BMC interface, one-click deployment with automatic status write-back without manual intervention, and concurrent deployment of up to 40 devices.
Asset Management	Supports part-level asset management, multi-dimensional asset statistics, 3D data centers, and asset maintenance management.
Inspection Management	Supports active inspection tasks, alarm-triggered passive inspection, intelligent fault diagnosis and analysis, and automatic fault reporting and correction.
Security Management	Implements security control of ISPIM by using a set of security policies such as user management, role management, authentication management (local authentication and LDAP authentication), and certificate management policies.

9.3 Inspur Server Intelligent Boot (ISIB)

NF3280A6 is compatible with the latest version of the Inspur Server Intelligent Boot (ISIB) system, which is a full lifecycle automatic O&M management system for servers independently developed by Inspur. Based on the SSH and PXE technologies, it is compatible with the entire family of Inspur servers, and has more efficient and reliable automatic deployment and software and hardware configuration management functions. ISIB has the following key features:

- Full lifecycle device management from racking to automatic O&M
- Bare-metal one-stop deployment with one-click racking
- Flexible task scheduling with multi-scenario O&M capabilities
- Large-scale deployment of technical architecture for reduced launch time
- Zero network deployment with plug-and-play support
- Accurate logging and instruction-level tracing of execution results
- Rich built-in O&M scripts and management schemes







Table 9-3 ISIB Specifications

Item	Description
Home	Provides multi-dimensional statistical results of assets, repositories, operations, and jobs, dynamic display of jobs in the last 24 hours, and histogram display of jobs in the last 30 days.
Assets	Supports automatic device discovery, operating system information collection, and out-of-band/in-band power supply management.
Repository	Provides the management of mirrors, software, firmware, configuration files, scripts, and sources to facilitate operations such as operating system deployment and firmware upgrades.
Operations	Supports firmware upgrade. Supports hardware configuration. Supports PXE automatic installation.

Item	Description
	Supports installation template management. Supports image cloning and restoration.
Tasks	Supports job scheduling, and scheduled and periodic task execution. Provides visual multi-dimensional task display and refined log viewing.

10 Certification

Table 110-1 Parts of the task book to be certified:

Region	Item	Certification Logo	Compulsory/ Voluntary	Description
China	CCC		Compulsory	
	China Environmental Label		Voluntary	
International Mutual Recognition	CB	N/A	Voluntary	
EU	CE		Compulsory	
US	FCC		Compulsory	
	UL		Voluntary	
	Energy Star		Voluntary	

11 Support and Services

Please visit the official website of Inspur at <https://en.inspur.com/>, click Support > Support Center > Warranty & Configuration, and enter the product model, part model, serial number or keywords to learn relevant information and check the warranty status and configuration of related products.

- Global service hotline:
 - 1-844-860-0011 (toll free)
 - 1-760-769-1847 (direct line)
 - Service email: serversupport@inspur.com
- Required customer information:
 - Name
 - Company information
 - Contact number
 - Email address
 - Product model
 - Product serial number
 - Problem description

12 Relevant Documents

For more information, go and visit: <https://en.inspur.com>

There you can find resources to solve problems and learn about our products, such as product manuals, drivers, and firmware.

13 Trademarks

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