Gooxi

G6A80A5 OAM Server
Technical White Paper

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Shenzhen Gooxi Digital Intelligence Technology Co., Ltd

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Foreword

This manual is the product technical white paper for the G6A80A5 OAM server, mainly introducing and explaining the appearance, structure, hardware installation, and basic configuration of this product.

Intended Audience

This manual is intended for reference by professional technical personnel. Installation and maintenance of this product should only be carried out by experienced technical personnel.

Symbol Conventions:

This manual uses prominent symbols to indicate items that require attention during operation:

 Warning	Indicates important information related to equipment or environmental safety. Failure to follow these instructions may result in equipment damage, data loss, performance degradation, or other unforeseen consequences.
 Danger	Indicates important information related to equipment or environmental safety. Failure to follow these instructions may result in equipment damage, data loss, performance degradation, or other unforeseen consequences.
Blue Arrow	Indicates actions such as removal, insertion, or angled insertion.
Red Arrow	Indicates a specific location or direction.
 Hollow Arrow	Indicates the next step or resulting action.
 Dark Blue Rotating Arrow 1	Indicates tightening screws clockwise or pulling outward.
 Dark Blue Rotating Arrow 2	Indicates loosening screws counterclockwise or pushing inward to secure.

Modification Record

Manual version	Release date	Modification
V1.0	2026/01/10	First release
V1.1	2026/01/21	Update slot description
V1.2	2026/04/14	Updated product model name

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Contents

1. Product Introduction

1.1 Product Overview

G6A80A5 AI Computing Server is built on the AMD EPYC Turin platform, offering outstanding computing performance and excellent scalability. This server supports the next-generation 8-GPU module, is compatible with SXM5 and OAM2.0 interfaces, and adopts a modular architecture design that effectively improves overall system thermal efficiency and operational convenience, allowing GPU performance to be fully unleashed.

The CPU node can accommodate 2 AMD EPYC Turin processors, paired with multi-channel DDR5 memory technology, achieving up to a 50% improvement in memory bandwidth. It is also equipped with 12 PCIe 5.0 slots and 16 drive bays, capable of flexibly adapting to various computing architectures and comprehensively enhancing overall system performance. It is widely applicable to large-scale AI training, HPC, large data centers, and other high-compute-demand scenarios.

- Server Front Panel

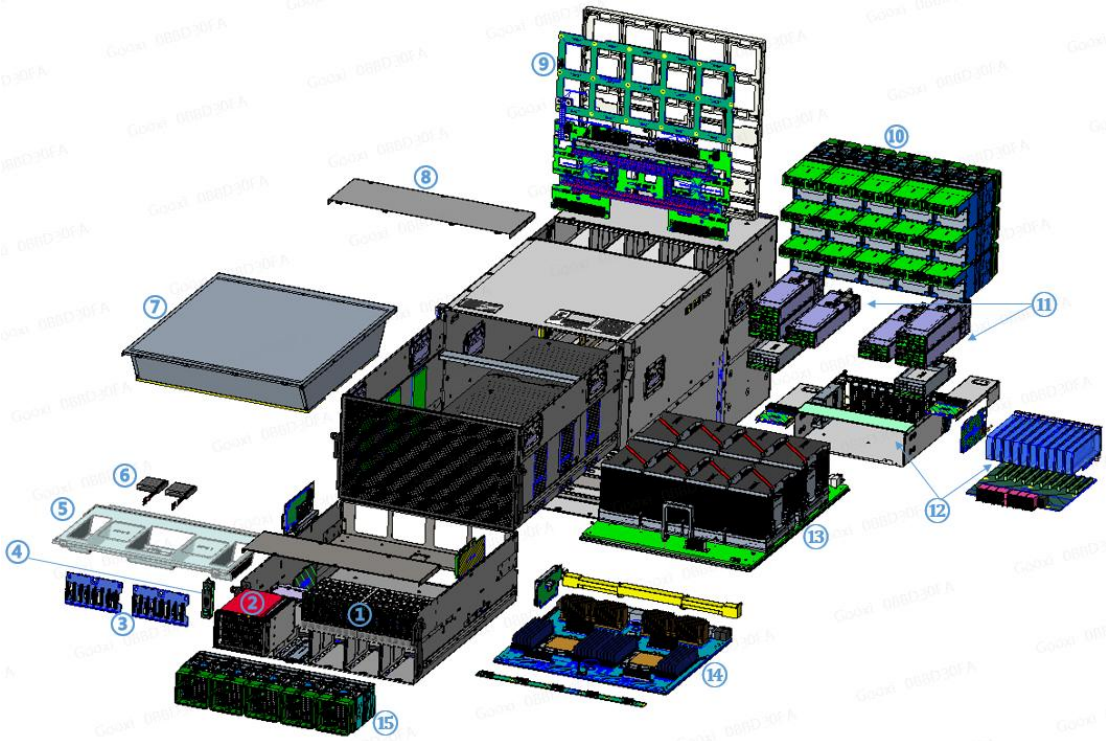
- Server Rear Panel

1.2 Product Features

- The 8-GPU module is compatible with both SXM5 and OAM 2.0 modules, fully meeting the requirements of high-computing-power scenarios.
- Flexible GPU topology switching supports various computing scenarios; PCIe devices can adjust resource allocation based on business requirements, enabling full release of computing performance.
- Modular system design allows independent maintenance of the control unit, compute unit, and NIC unit, enabling easy operation and maintenance while meeting multi-scenario computing requirements.

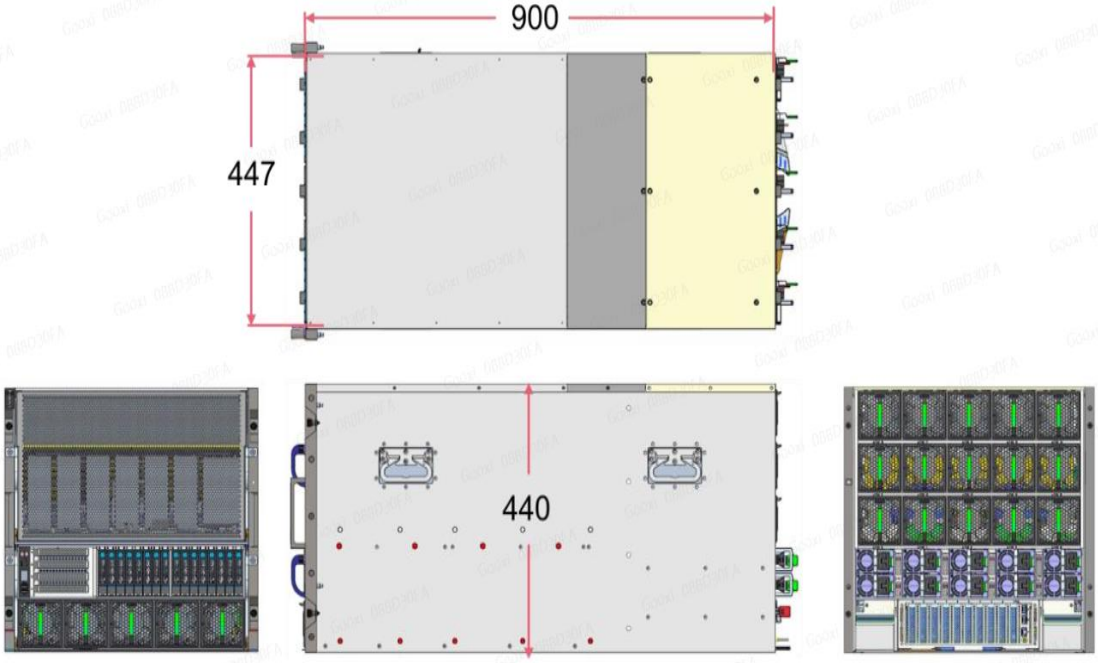
1.3 Product Structure

The server components of the G6A80A5 model is shown below:

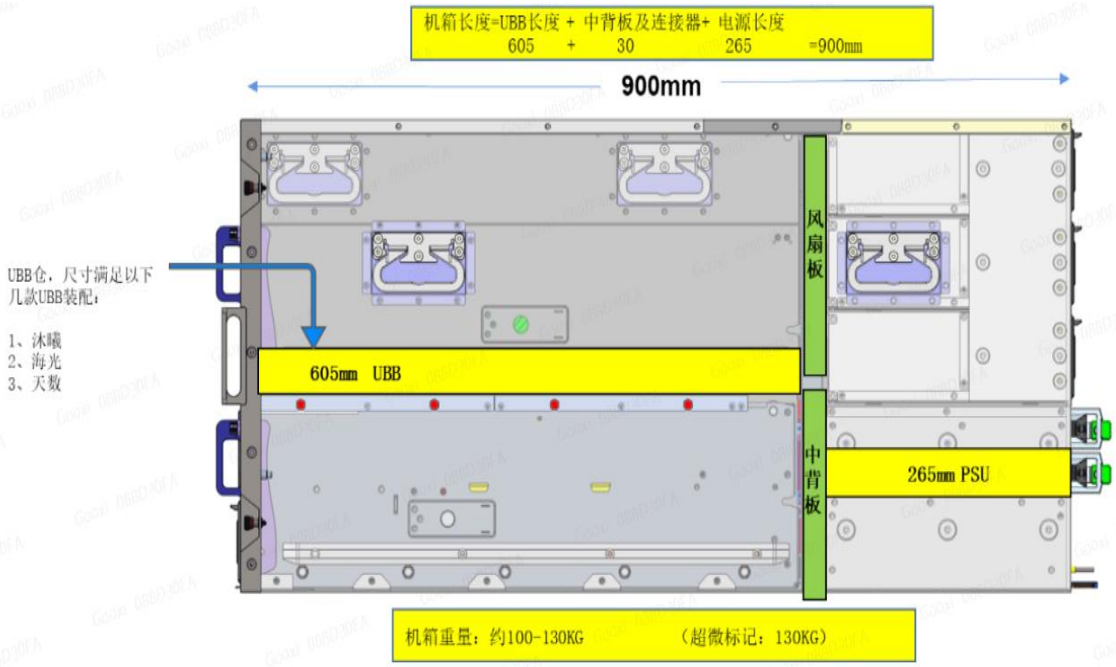


No.	Name	No.	Name
1	16-bay drive cage	9	HIB board
2	Front PCIe module	10	Rear fan module
3	16-bay backplane	11	Power module
4	Rack ear module	12	Rear I/O + NIC node
5	Server motherboard air duct cover	13	UBB module
6	Supercapacitor	14	Motherboard
7	UBB partition plate	15	Front fan module
8	Middle backplane top cover		

1.4 Chassis Dimensions

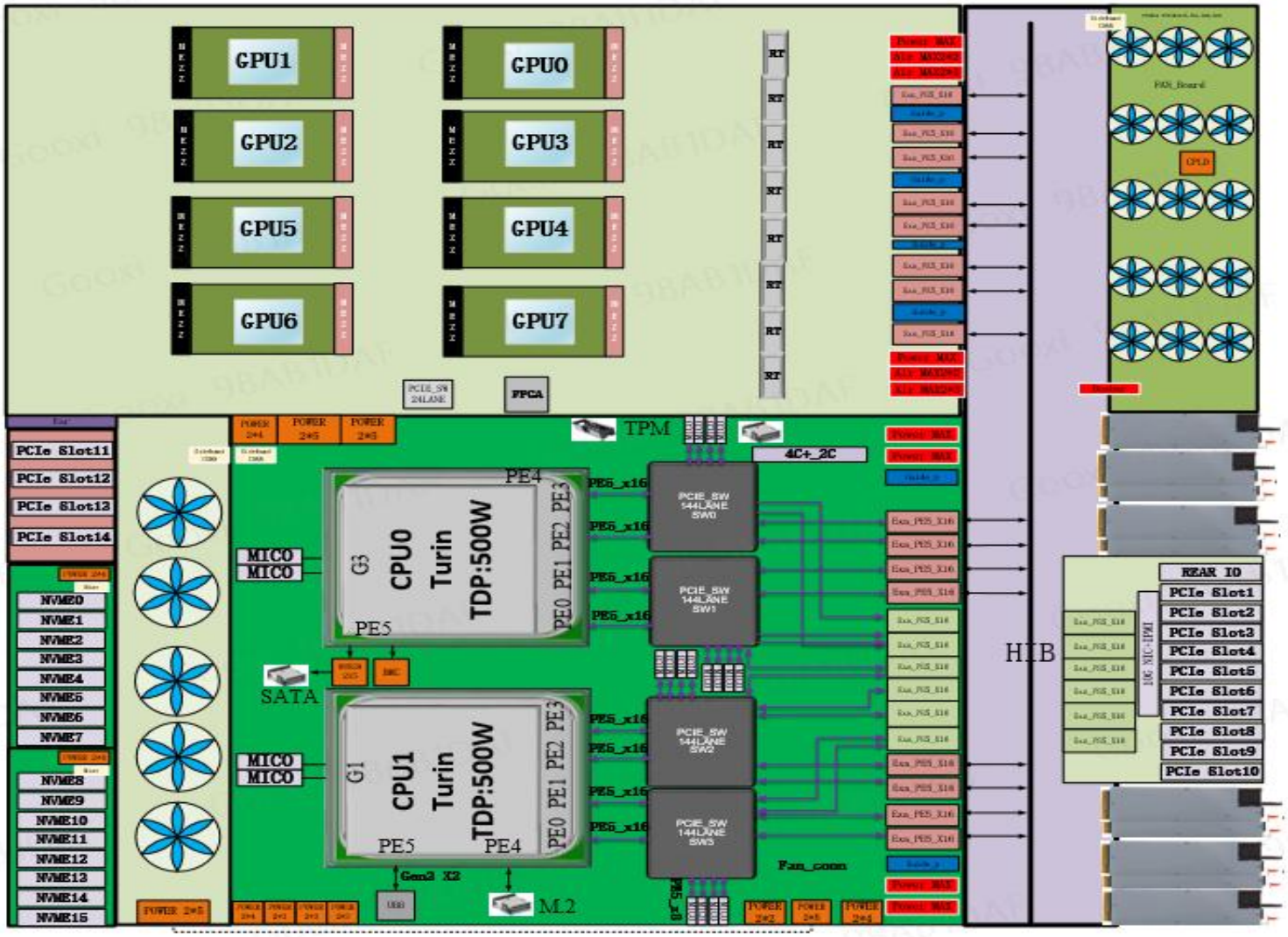


Dimension Description:



1.5 Logical Structure

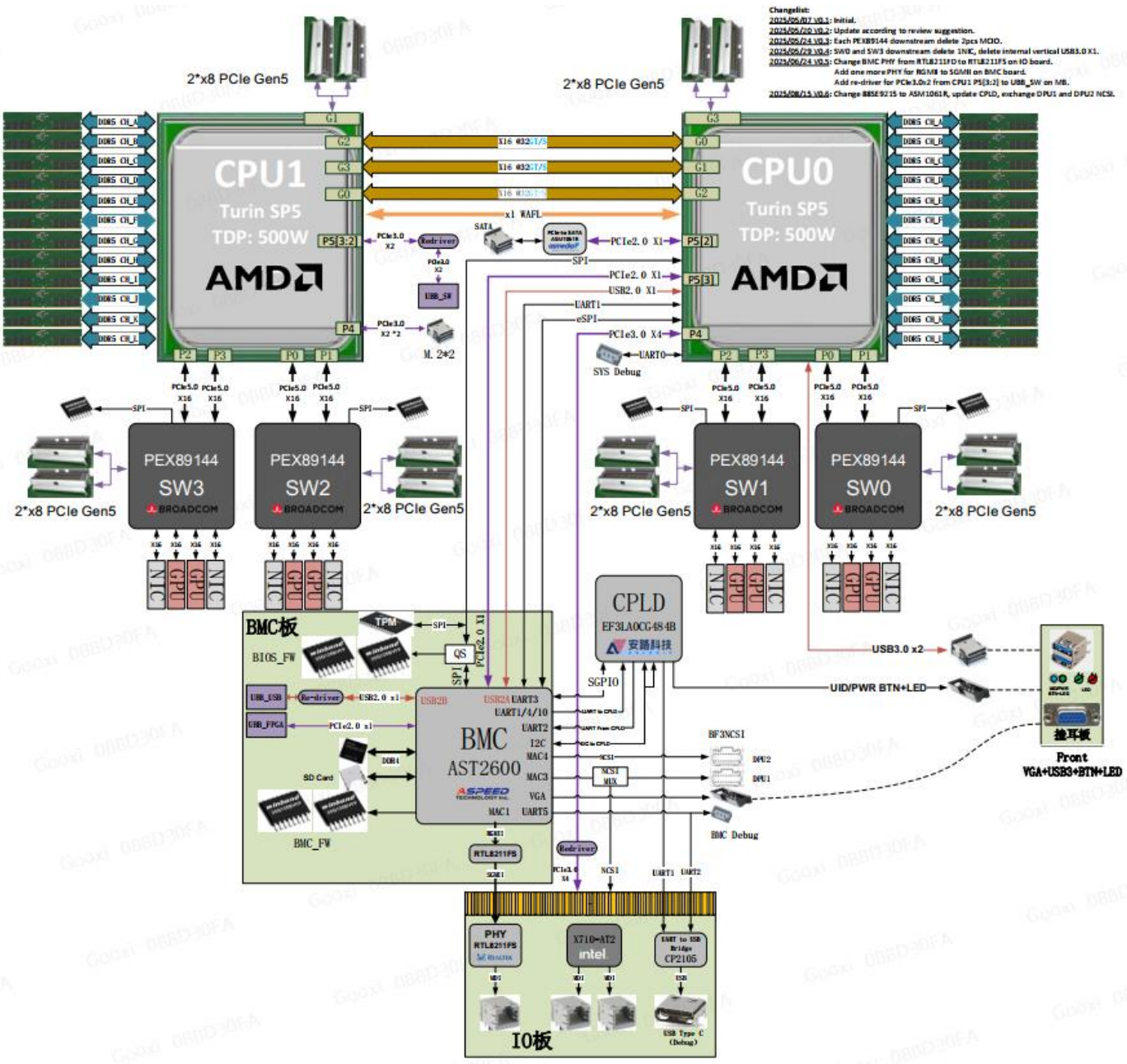
The internal logical structure of the server is shown in the following diagram:



Internal Logical Block Diagram

- The motherboard and SWITCH board adopt a combined board design.
- The SWITCH provides 144 lanes; each SWITCH connects to 2 GPU modules, 2 NICs, and 2 MCIO x8 interfaces (supporting 4 NVMe drives).
- The overall system adopts a modular combination design, dividing into CPU compute nodes, GPU compute nodes, and NIC nodes, enabling easy operation and maintenance while meeting diverse computing scenario requirements.

1.6 Logical Topology

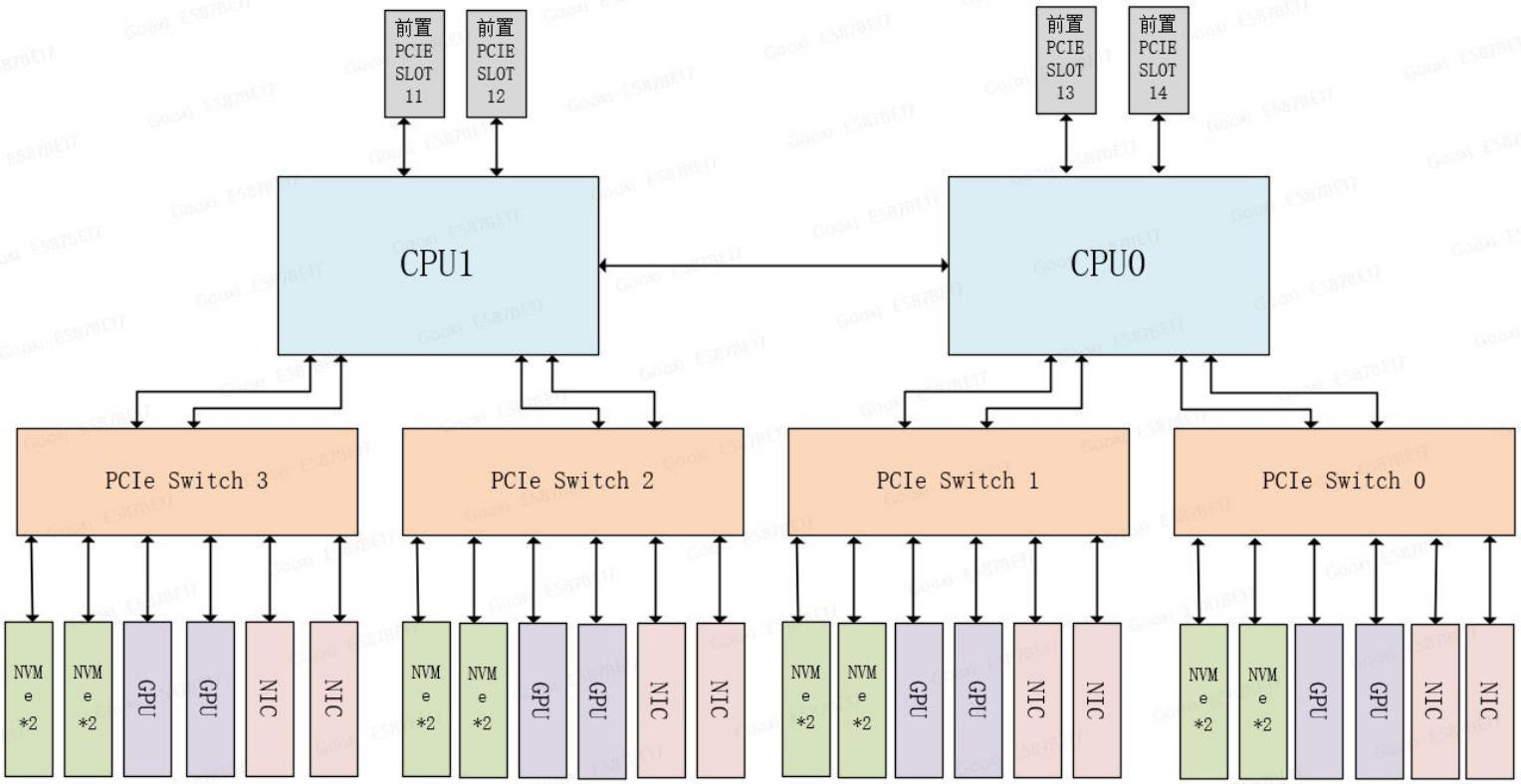


System Logical Block Diagram

- Supports up to 2 AMD EPYC Turin processors, compatible with AMD EPYC Genoa, with a maximum TDP of 500W
- Supports 24 DDR5 DIMMs
- Supports the new 8-GPU module (SXM5 and OAM 2.0)
- Supports up to 12 PCIe 5.0 slots and up to 16 drive bays

- Equipped with AST2600 management controller, supporting RJ45 management port and serial management interface

1.7 Switch Configuration



Switch Dual-Uplink Topology

- The motherboard design includes 4 PCIe 5.0 Switches.
- Each switch has two uplink X16 signals connected to the CPU respectively, and downstream links connect to 2 GPUs + 2 NICs (up to 400G each) + 4 NVMe drives. The 4 switches together can support up to 16 front-panel NVMe drives.
- The 4 front PCIe SLOT signals are directly from the motherboard, supporting X8 signals. A maximum of 4 slots is supported; they can be combined into 2 X16 signals, supporting up to 2 DPUs.

1.8 Product Specifications

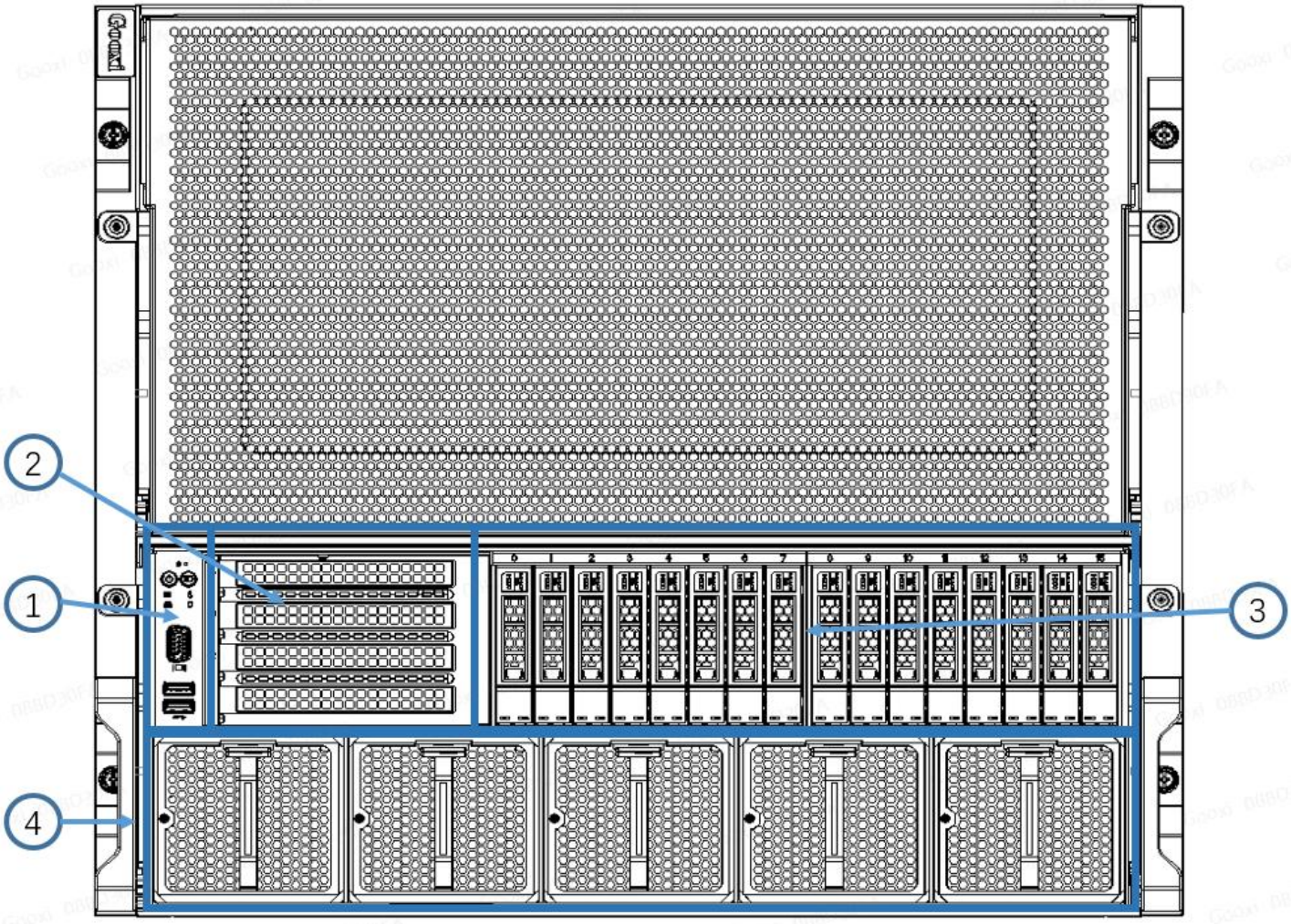
Function	Technical Specifications
GPU	Supports 8-GPU module (compatible with SXM5 and OAM2.0)
Processor	AMD platform motherboard, supports 2 AMD EPYC 9005 series processors (Turin), TDP up to 500W
Memory DIMM	Each CPU supports 12 DDR5 channels, with a total of 24 DDR5 DIMM slots; supports DDR5 RDIMM and 3DS RDIMM ECC memory, with memory frequency up to 6400MHz; RDIMM capacities of 16GB, 24GB, 32GB, 48GB, 64GB, 96GB, 128GB
Management Chip	BMC board integrates AST2600 advanced baseboard management controller, providing IPMI remote management; supports both dedicated IPMI management port and NCSI management interface
PCIe Switch	4 onboard PCIe Switch PEX89144, supporting up to 144 lanes of PCIe 5.0
PCIe Expansion	■ Supports up to 12 PCIe 5.0 slots (4 front + 8 rear) ■ Supports OAM 8-GPU modules at 1400W; system design compatible with Metax C500 SXM 8-GPU and NVIDIA SXM H200 8-GPU
Storage Controller	■ Supports up to 16 NVMe drives ■ 2 PCIe M.2 SSDs (22110), with three connection options: 1) M.2 board connected to motherboard Slimline x4 (M.2 PCIe): CPU1 P4 port, 2 M.2 operate at PCIe 3.0 x2, no hardware RAID support 2) M.2 board connected to RAID card via MCIO: CPU1 PCIe to RAID card, 2 M.2 operate at PCIe x4, RAID supported 3) M.2 board connected to motherboard Slimline x4 (M.2 SATA): CPU0 P5 port connects to onboard Raid chip providing dual SATA signals, 2 M.2 operate at SATA x1, RAID supported
Internal Interfaces	BMC board provides 1 SPI TPM interface and 1 Micro SD card slot
Front Panel Interfaces	1 VGA port, 2 USB 3.1 ports

Rear Panel Interfaces	➢ 1 Type-C serial port ➢ 1 Gigabit RJ45 management port ➢ 2 10GbE RJ45 data ports
Temperature Monitoring	Supports temperature monitoring at motherboard air inlet and outlet
Fan	Supports up to 15 × 8080 Fan for GPU + 5 × 8080 Fan for CPU
Power Supply	Supports up to 12 power modules, including 10 × 54V and 2 × 12V Hot-Swap power modules, with real-time power monitoring

2. Hardware Description

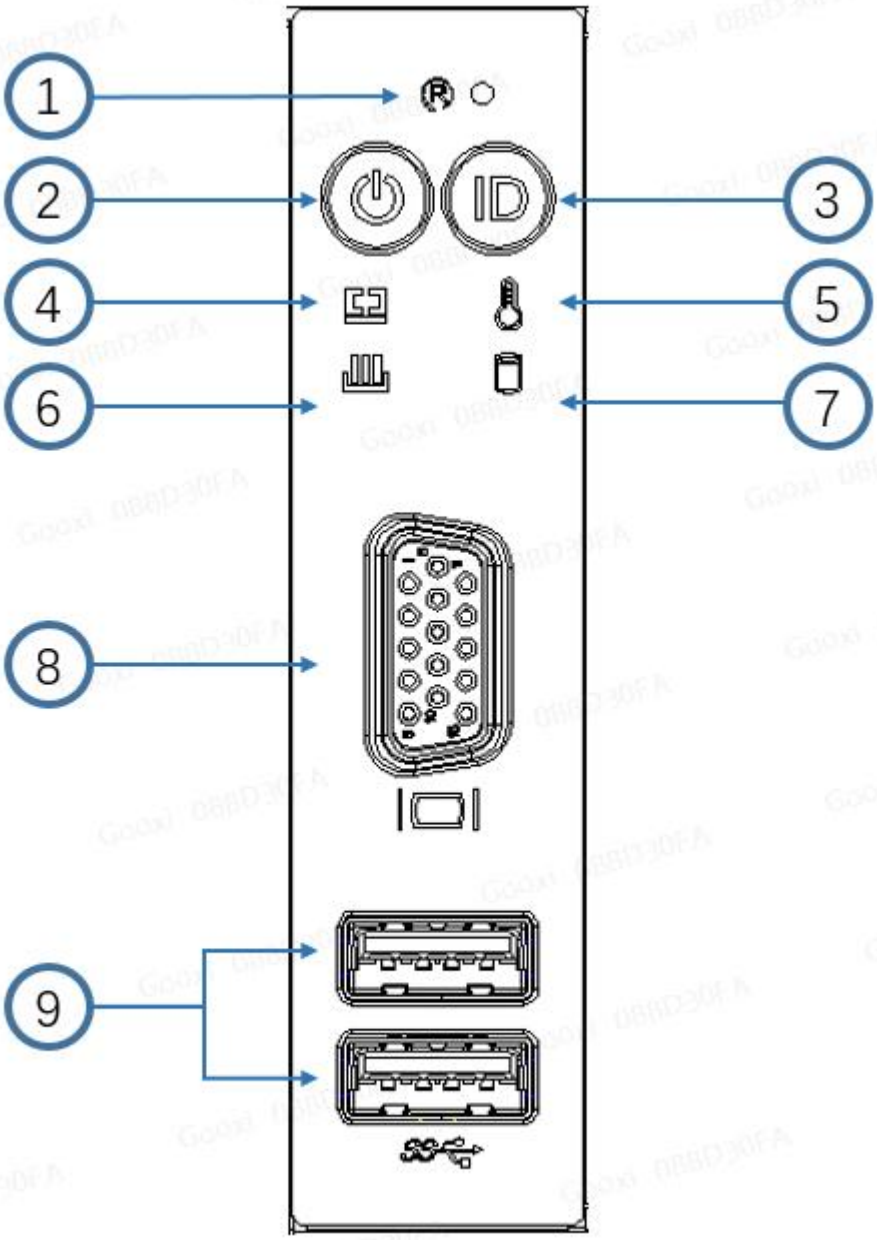
2.1 Front Panel

- Appearance



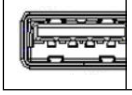
No.	Name	No.	Name
1	Control panel + VGA port + USB 3.1 ports	3	16 × 2.5-inch drive module
2	Front PCIe module	4	Front fan module 1–5

- Indicator lights and buttons



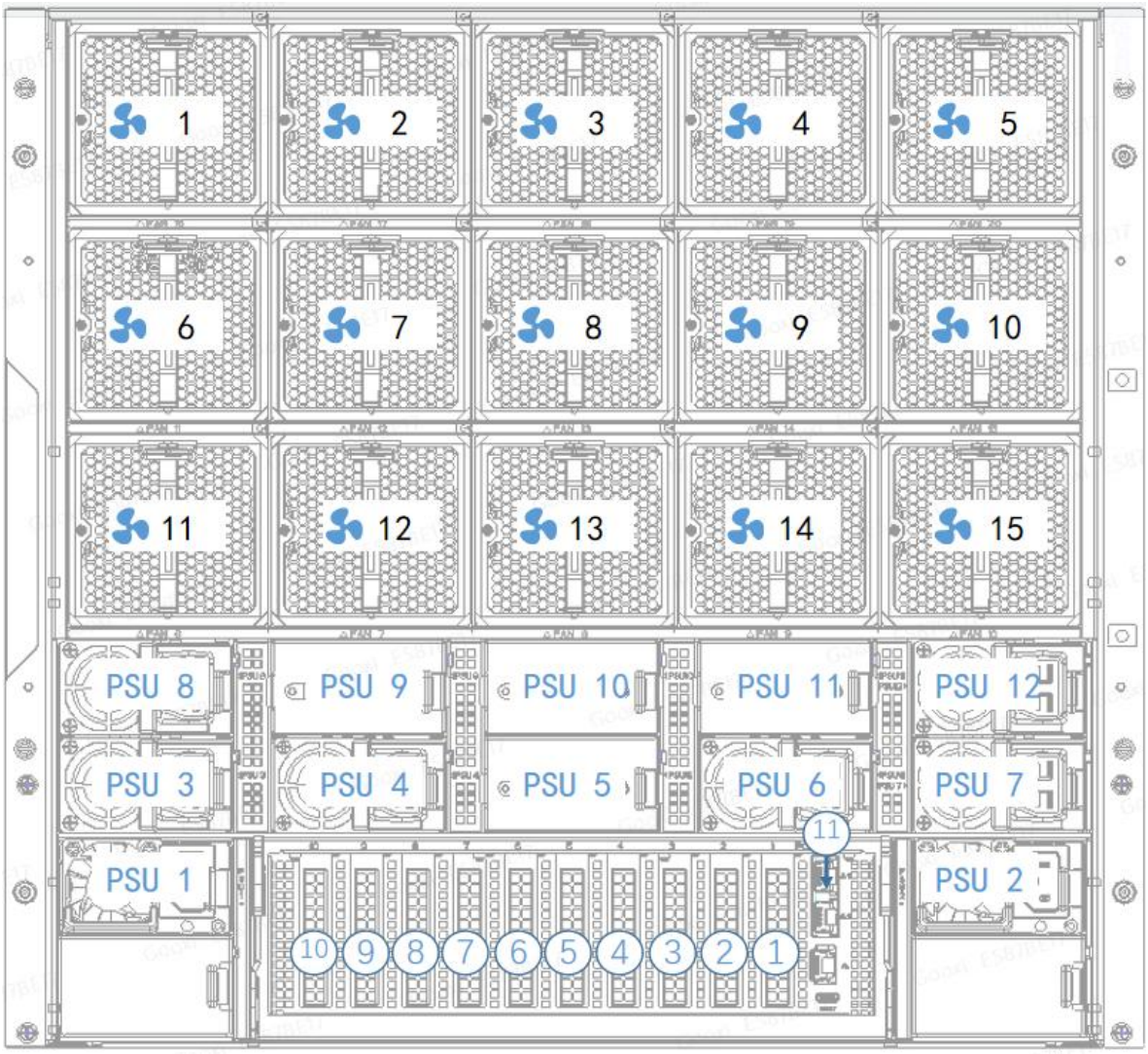
No.	Indicator/Button	No.	Indicator/Button
1	Reset button (server reboot)	6	Memory alarm indicator
2	Power button / power indicator	7	M.2 drive status indicator
3	UID Button/Indicator	8	VGA port
4	System alarm indicator	9	USB 3.1 ports
5	Temperature alarm indicator		

Status Description		
Logo	Indicator/button	Status description

	Reset button (server reboot)	Press to restart the server
	Power indicator	Description of the power indicator light: Green (steady on): Indicates that the device has been powered on normally. Green (blinking): Indicates that the device is in standby. Green off: Indicates that the device is not powered on. Power button description: When the server is powered off, short press this button to power it on.. Press and hold the button for 6 seconds in the power-on state to force the server to Power off. Short pressing this button in the standby state allows for powering on.
	UID button/indicator	The UID button/indicator is used to conveniently locate the server to be operated, and the indicator can be turned off or on by manually pressing the UID button or remotely controlling the BMC command. Description of UID indicator light: Blue (steady on/blinking): Indicates that the server is located. Off: Indicates that the server is not located. UID button description: Short press to turn the locator LED on/off; long press for 6 seconds to reset the BMC.
	System alarm indicator	Green (solid): No system alarm currently. Red (solid): General faults detected in devices such as CPU, memory, power supply, fan, etc. Details can be checked via IPMI management software. Red (blinking): Critical faults detected in devices such as CPU, memory, power supply, fan, etc. Details can be checked via IPMI management software.
	Memory alarm indicator	When memory is operating normally, the indicator is off. When a memory alarm or error occurs, the indicator turns yellow. It blinks (1 Hz) for minor alerts and remains solid for critical alarms.
	Temperature alarm indicator	Blinking yellow indicates a general high-temperature warning. Solid yellow indicates severe conditions such as fan failure or excessively high ambient temperature.
	M.2 drive indicator	Blinks when there is data read/write activity on the M.2 drive.
	VGA port	Used to connect display devices such as monitors or KVM consoles.
	USB 3.1 ports	Used for connecting USB devices.

2.2 Rear Panel

- Appearance
  - Rear panel appearance



  - Description

No.	Name	No.	Name
1–10	NIC module PCIe expansion slots	PSU 1–12	Power supply (PSU) slots
FAN 1–15	Rear fan modules	11	BMC Board

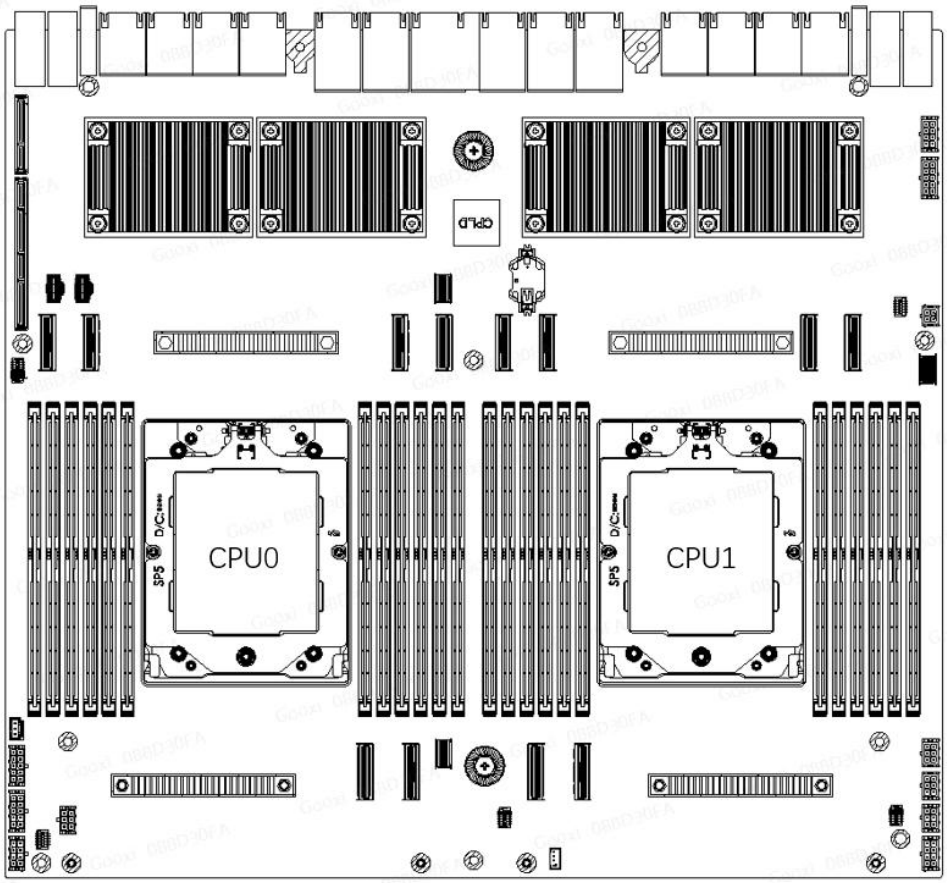
  - Power Module Indicator Description

Indicator/Button	Status Description
Power module indicator	Green (solid): Input and output are normal. Amber (solid): AC power cable is disconnected or the power

	module is missing; only one parallel power module has AC input; or the power module output is shut down due to a fault, such as OVP, OCP, or fan failure. Off: No AC power input.

2.3 Processors

- Supports 2 AMD EPYC™ 9004 or AMD EPYC™ 9005 processors
- Processors used in the same server must be of the same model
- For available system configuration options, please contact Gooxi sales
- Processor location is shown in the diagram below:

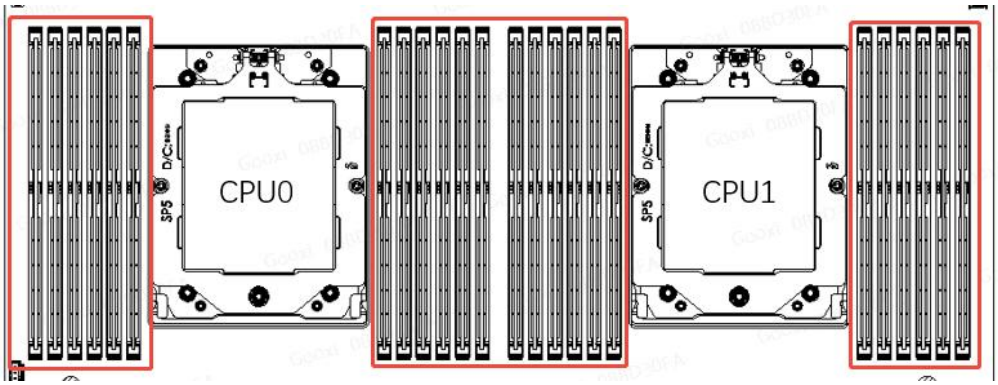


2.4 Memory

- Memory slot location

Each processor socket on the motherboard supports 12 DDR5 memory channels. With 2 CPUs, a total of 24 DDR5 DIMM slots are supported. The slot layout is shown in the figure below:

- memory slot location



- memory installation guidelines

DDR5 memory slots support memory speeds up to 6400 MT/s and support DIMM, RDIMM, and 3DS-RDIMM types, with a total of 24 slots.

DIMM: Supports single module capacities from 16GB to 256GB;

RDIMM: Supports single module capacities from 16GB to 128GB;

3DS-RDIMM: Supports single module capacities from 16GB to 512GB;

For detailed supported DIMM capacities and types, refer to the official AMD documentation and the component AVL

⚠ Note:

- All DDR5 memory modules installed in the same server must use the same Part Number (P/N) and operate at the same speed. The final operating speed will be the lowest value among the following:
- Maximum supported memory speed of the specific CPU
- Maximum operating speed of the specific memory configuration
- Different types (DIMM、RDIMM、3DS-RDIMM) and different specifications (capacity, bus width, rank, height, etc.) of DDR5 memory cannot be mixed
- Different AMD EPYC CPU models support different maximum memory capacities. For details, refer to the AMD CPU list

General installation guidelines for DDR5 memory:

- At least one DDR5 memory module must be installed
- All configured memory modules must have the same rank
- When no memory is installed, dummy DIMMs must be installed in the memory slots

Parameter Type	Parameter Value

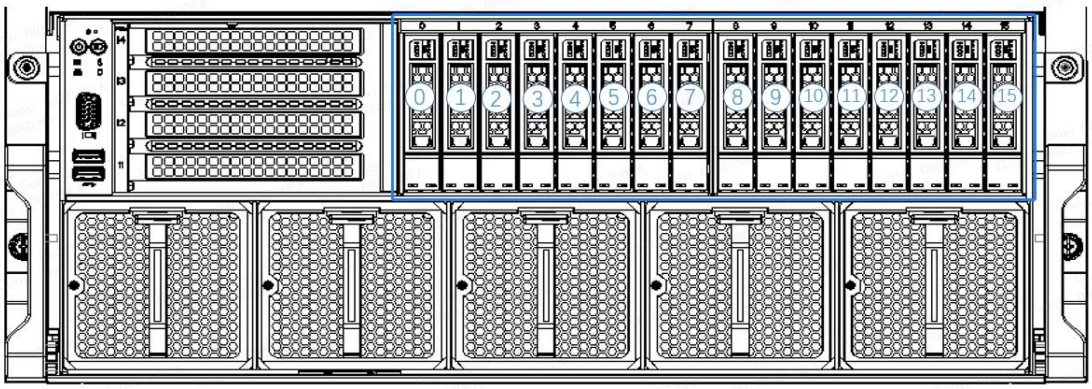
Single DDR5 DIMM capacity (GB)	32	64	96	128
Frequency (Hz)	4800 / 5600 / 6400 (depending on different CPUs)			
Operating voltage (V)	1.1			
Maximum memory modules per system	24			
Maximum system memory capacity (GB)	768	1536	2304	3072

2.5 Storage

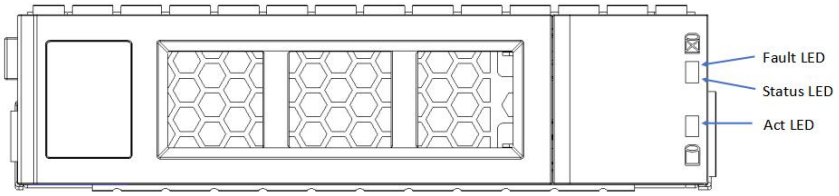
- Hard drive configuration

External: supports up to 16 × 2.5-inch drives;
Internal: supports 2 PCIe M.2 SSDs.

- Hard drive serial number



- Hard drive status indicator



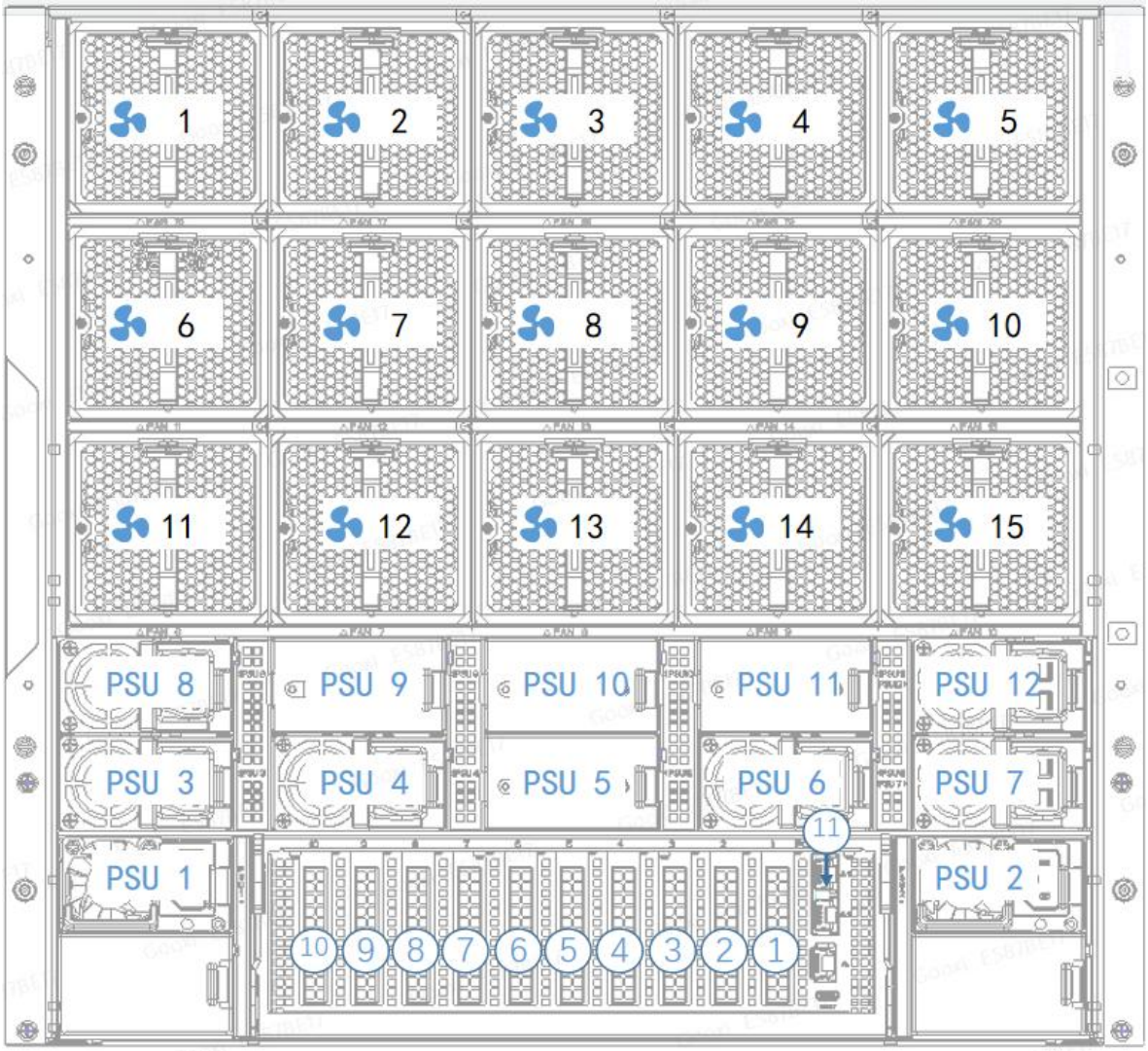
- Hard drive status indicator description

Function	Act LED	Fault LED	Status LED
Hard drive Presenting	Steady on	Off	Off
Hard drive activity	Blinking at 4Hz/sec	Off	Off

Hard drive positioning	Steady on	Blinking at 4Hz /sec	Off
Hard drive error	Steady on	Off	Steady on
Raid rebuilding	Steady on	Off	Blinking at 1Hz/sec

2.6 Power Supply

- Supports 10 × 54V and 2 × 12V Hot-Swap power modules
- PSU 1–2 slots support 12V power modules with 185 mm length
- PSU 3–12 slots support 54V power modules with 256 mm length
- 12V power supports up to 3200W, 54V power supports up to 3000W, configurable based on system requirements
- Supports real-time power monitoring



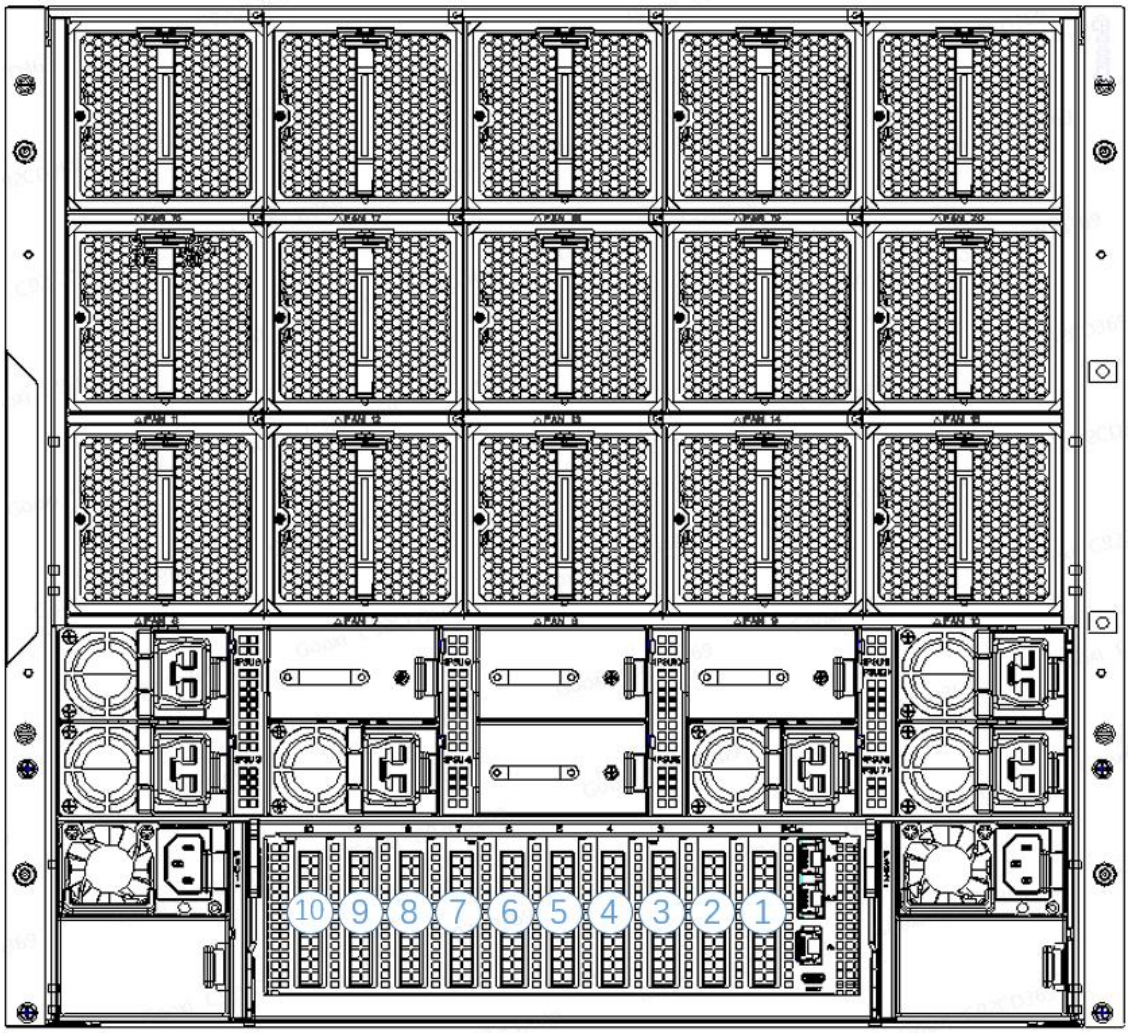
2.7 Fans

- Rear supports 15 × 8080 fan modules for GPU
- Front supports 5 × 8080 fan modules for CPU
- Supports Hot-Swap

2.8 NIC Expansion

- Rear PCIe slot location

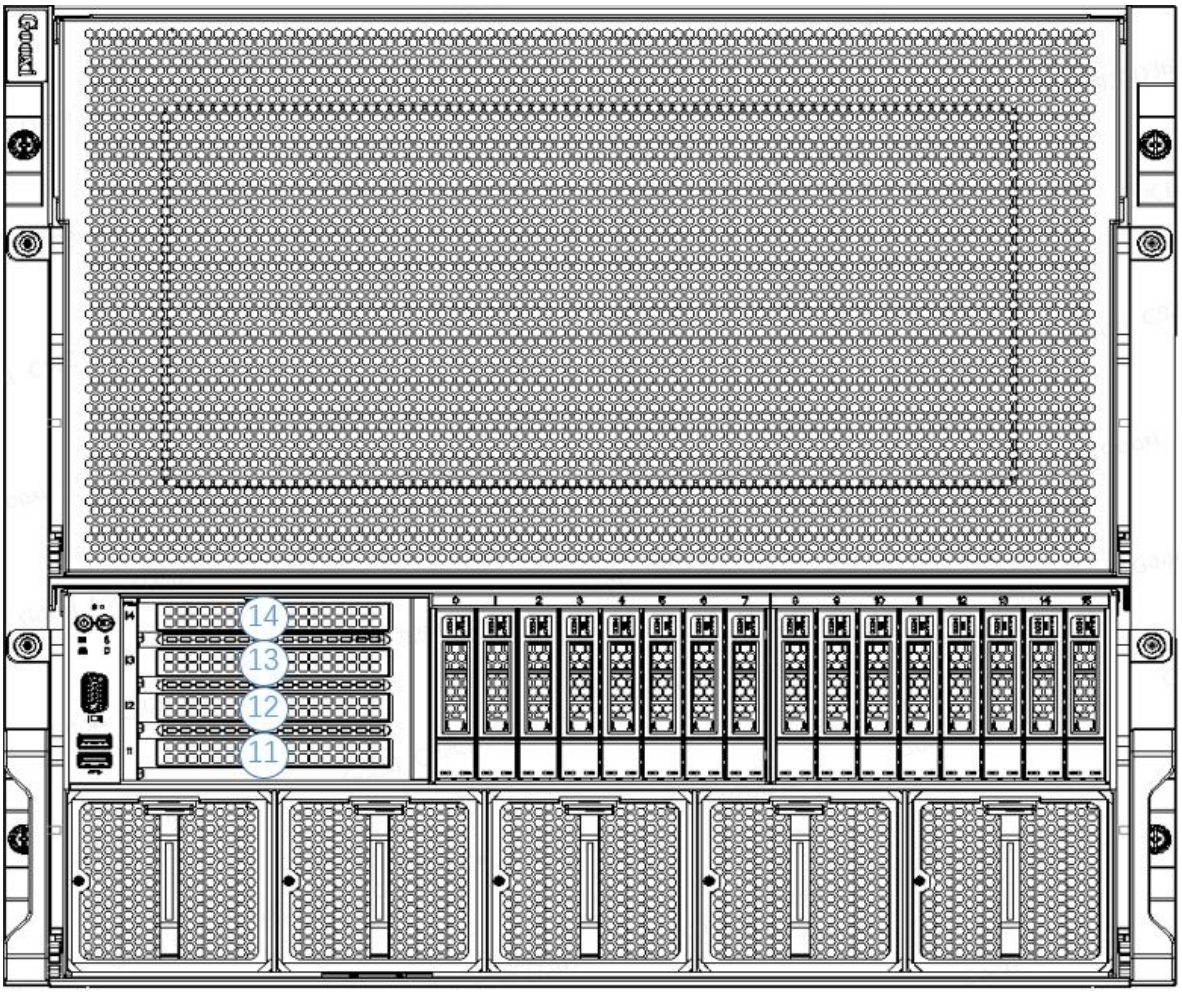
SLOT silkscreen 1-10



Note: SLOT1 and SLOT10 (silkscreen labels) have no signal

- Front PCIe slot location

SLOT silkscreen 11-14



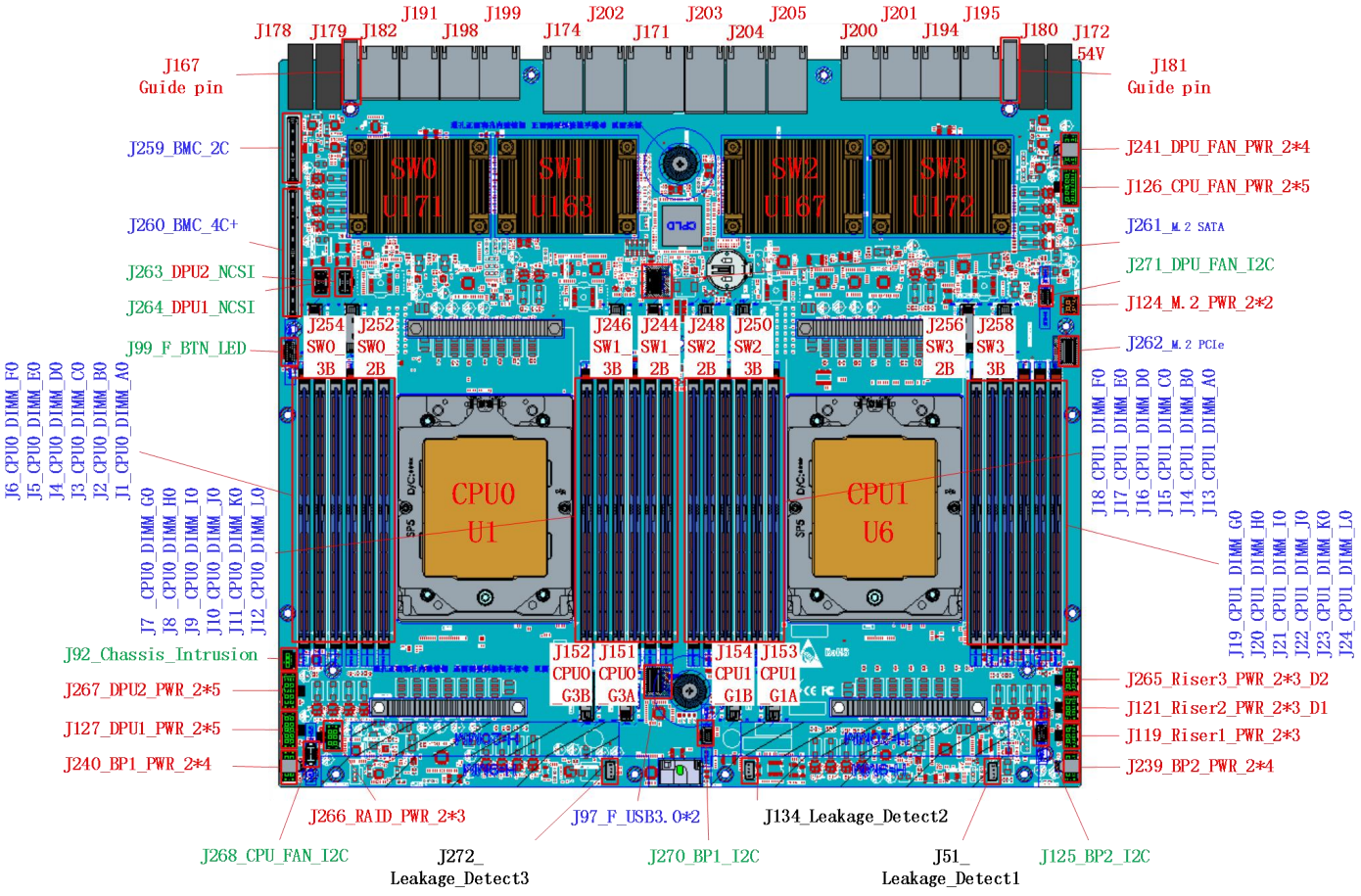
- PCIe slot description

PCIe slot silkscreen	Subordinate CPU	PCIe standard	Bus bandwidth	Slot size
Slot 1	N/A	N/A	N/A	HHHL
Slot 2	CPU0	PCIe 5.0	X16	HHHL
Slot 3	CPU0	PCIe 5.0	X16	HHHL
Slot 4	CPU0	PCIe 5.0	X16	HHHL
Slot 5	CPU0	PCIe 5.0	X16	HHHL
Slot 6	CPU1	PCIe 5.0	X16	HHHL
Slot 7	CPU1	PCIe 5.0	X16	HHHL
Slot 8	CPU1	PCIe 5.0	X16	HHHL
Slot 9	CPU1	PCIe 5.0	X16	HHHL
Slot 10	N/A	N/A	N/A	HHHL
Slot 11	CPU1	PCIe 5.0	X8 or X16	HHHL
Slot 12	CPU1	PCIe 5.0	X8	HHHL

Slot 13	CPU0	PCIe 5.0	X8 or X16	HHHL
Slot 14	CPU0	PCIe 5.0	X8	HHHL

Note:
◆PCIe x16 slots are backward compatible with PCIe x8, PCIe x4, and PCIe x1 cards. However, upward compatibility is not supported, meaning the slot bandwidth cannot be smaller than the PCIe card's bandwidth.
◆PCIe slots with full-height, full-length form factor are backward compatible with full-height, half-length and half-height, half-length PCIe cards; PCIe slots with full-height, half-length form factor are backward compatible with half-height, half-length PCIe cards.
◆All slots can supply up to 75W of power to PCIe cards, though the actual power consumption depends on the specific model of the PCIe card.

2.9 Motherboard



Motherboard Figure

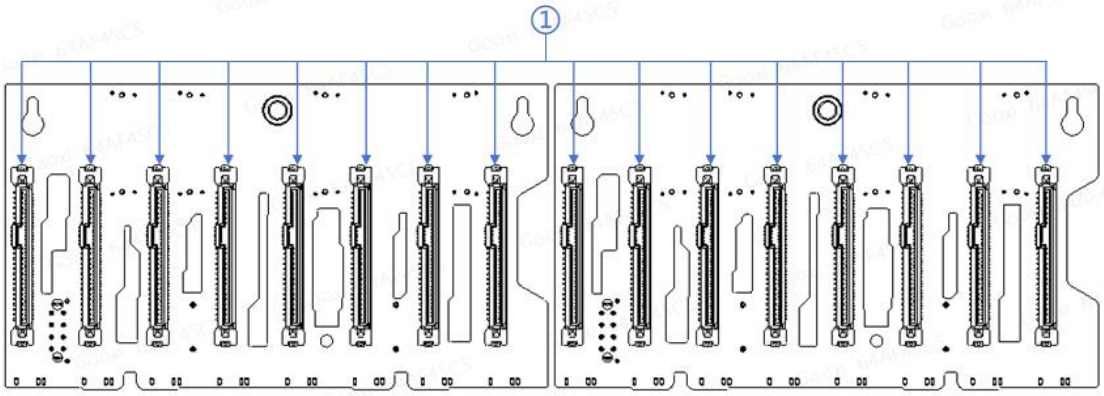
Position	Description	Note
J1/J2/J3/J4/J5/J6/ J7/J8/J9/J10/J11/J12	CPU0 DIMM A/B/C/D/E/F/G/H/I/J/K/L channel DDR5 DIMM slot 0	Black
J13/J14/J15/J16/J17/J18/ J19/J20/J21/J22/J23/J24	CPU1 DIMM A/B/C/D/E/F/G/H/I/J/K/L channel DDR5 DIMM slot 0	Black

J182	4*10 ExaMAX	Connected to HIB board, provides high-speed signals
J191	4*10 ExaMAX	Connected to HIB board, provides high-speed signals
J198	4*10 ExaMAX	Connected to HIB board, provides high-speed signals
J199	4*10 ExaMAX	Connected to HIB board, provides high-speed signals
J200	4*10 ExaMAX	Connected to HIB board, provides high-speed signals
J201	4*10 ExaMAX	Connected to HIB board, provides high-speed signals
J194	4*10 ExaMAX	Connected to HIB board, provides high-speed signals
J195	4*10 ExaMAX	Connected to HIB board, provides high-speed signals
J174	6*10 ExaMAX	Connected to NIC board, provides high-speed signals
J202	6*10 ExaMAX	Connected to NIC board, provides high-speed signals
J171	6*12 ExaMAX	Connected to NIC board, provides high-speed signals
J203	6*10 ExaMAX	Connected to NIC board, provides high-speed signals
J204	6*10 ExaMAX	Connected to NIC board, provides high-speed signals
J205	6*10 ExaMAX	Connected to NIC board, provides high-speed signals
J178	PwrMax 2P	Connected to HIB board, P12V power input
J179	PwrMax 2P	Connected to HIB board, P12V power input
J180	PwrMax 2P	Connected to HIB board, P12V power input
J172	PwrMax 2P	Connected to HIB board, P54V power input
J151	CPU0 PCIe5.0 x8 MCIO	PE5_CPU0_G3A
J152	CPU0 PCIe5.0 x8 MCIO	PE5_CPU0_G3B
J153	CPU1 PCIe5.0 x8 MCIO	PE5_CPU1_G1A
J154	CPU1 PCIe5.0 x8 MCIO	PE5_CPU1_G1B
J252	SW0 PCIe5.0 x8 MCIO	PE5_SW0_2B
J254	SW0 PCIe5.0 x8 MCIO	PE5_SW0_3B
J244	SW1 PCIe5.0 x8 MCIO	PE5_SW1_2B

J246	SW1 PCIe5.0 x8 MCIO	PE5_SW1_3B
J248	SW2 PCIe5.0 x8 MCIO	PE5_SW2_2B
J250	SW2 PCIe5.0 x8 MCIO	PE5_SW2_3B
J256	SW3 PCIe5.0 x8 MCIO	PE5_SW3_2B
J258	SW3 PCIe5.0 x8 MCIO	PE5_SW3_3B
J119	2x3 PWR CONN	Power for NIC riser cable
J121	2x3 PWR CONN	Power for NIC riser cable / DPU1 riser cable
J265	2x3 PWR CONN	Power for NIC riser cable / DPU2 riser cable
J266	2x3 PWR CONN	Power for RAID card riser cable
J127	2x5 PWR CONN	Auxiliary power for DPU1
J267	2x5 PWR CONN	Auxiliary power for DPU2
J240	2x4 PWR CONN	Power connector for 8-drive backplane 1
J239	2x4 PWR CONN	Power connector for 8-drive backplane 2
J124	2x2 PWR CONN	Power connector for M.2 adapter board
J126	2x5 PWR CONN(54V)	Power connector for CPU fan board
J241	2x4 PWR CONN(54V)	Power connector for DPU fan board
J259	GENZ 2C CONN	Connected to BMC board
J260	GENZ 4C+ CONN	Connected to BMC board
J270	2x6 CONN	Connected to BP1, provides I2C, sideband, and P3V3_AUX
J125	2x6 CONN	Connected to BP2, provides I2C, sideband, and P3V3_AUX
J261	CPU0 Slimline X4 Conn	Connected to M.2 adapter board, supports 2 SATA M.2
J262	CPU1 Slimline X4 Conn	Connected to M.2 adapter board, supports 2 PCIe x2 M.2
J263	2x10 CONN	DPU2_NCSI
J264	2x10 CONN	DPU1_NCSI
J92	1x3 CONN	Chassis intrusion switch interface
J51	1x4 CONN	Leakage_Detect1 interface
J134	1x4 CONN	Leakage_Detect2 interface
J272	1x4 CONN	Leakage_Detect3 interface

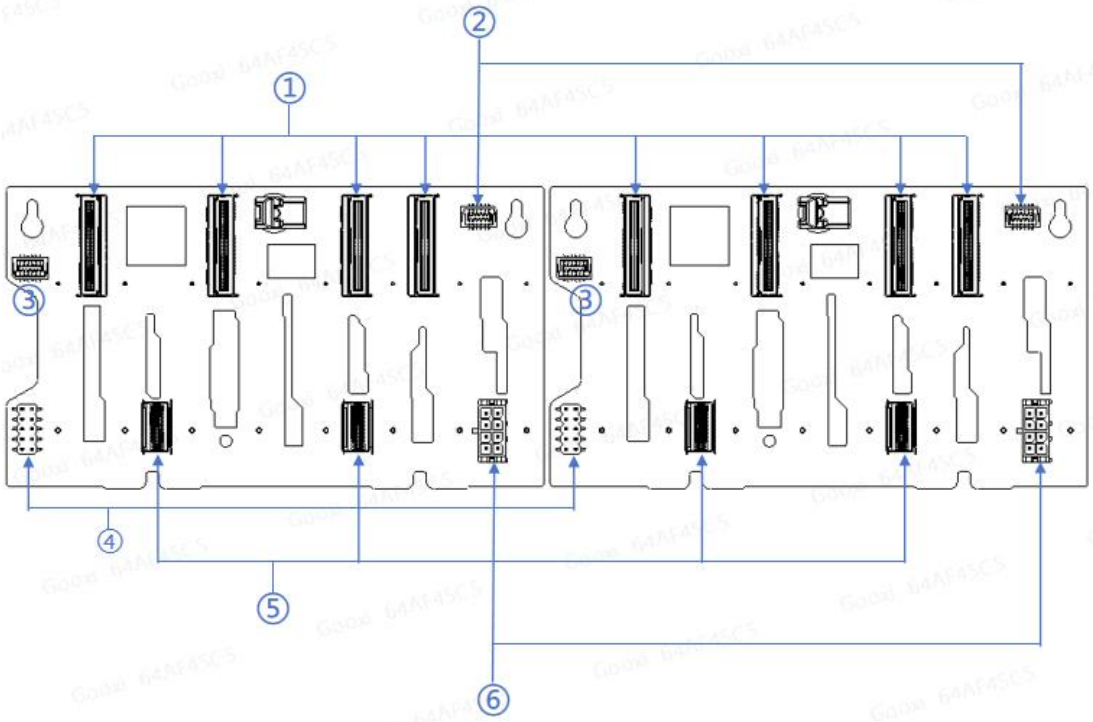
- Hard drive backplane
  - 16x 2.5-inch Front Hard Drive Backplane

    TOP surface



No.	Description	Function
1	SFF-8639 U.2 Drive Connector	Supports PCIe x4 and SAS/SATA U.2 interface for connecting HDD/SSD/NVMe drives

Bottom surface



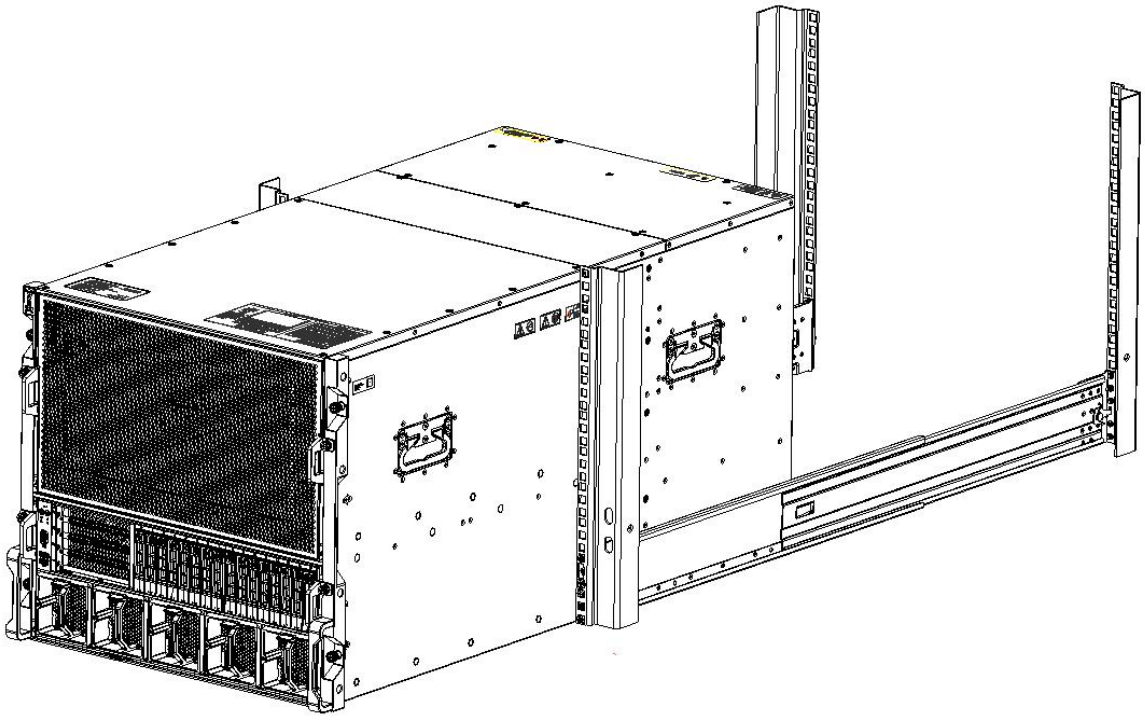
No.	Description	Function
1	MCIO Connector	Provides PCIe x8 interface for connection to CPU and NVMe SSDs
2	IIC Input Connector	Connects to motherboard or upstream backplane as IIC input; enables BMC communication
3	IIC Output Connector	Outputs IIC signals to downstream backplane

4	JTAG Connector	Used to flash CPLD firmware
5	SFF-8654 Slimline Connector	Provides SAS/SATA x4 interface for PCH or HBA/RAID card
6	Power Connector	Backplane power transmission connector for 12V and 5V power

3. Installation Instructions

3.1 Chassis Top Cover Installation

- Step 1: Lift the slot at the opening position, push and lift it in the direction indicated by the diagram.



3.2 Installation of Accessories

- CPU installation

Before starting the CPU installation, please read the following guidelines:

- Make sure the motherboard supports the CPU.
- Before installing the CPU, be sure to turn off the computer and unplug the power cord from the power outlet to prevent hardware damage.
- Disconnect all cables from the power socket.
- Disconnect all communication cables from their ports.
- Place the system unit on a flat and stable surface.
- Follow the instructions to turn on the system.

Warning!

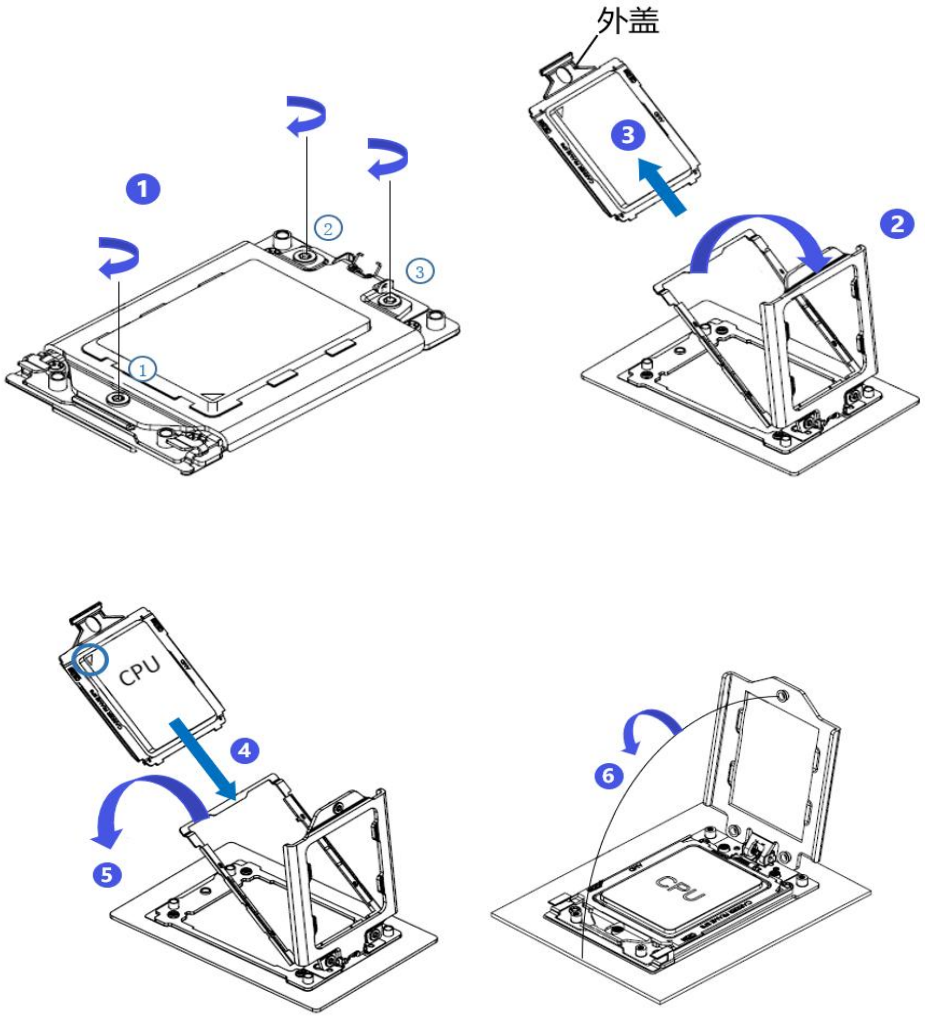
Serious damage could result if the server is not properly shut down before beginning component installation. Unless you are a qualified maintenance technician, otherwise do not attempt the steps described in the following sections.

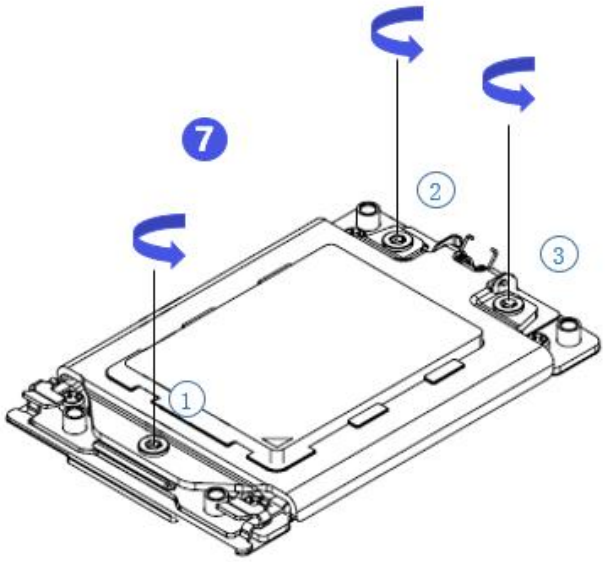
Follow the instructions below to install the CPU:

1. Loosen the three screws securing the CPU cover in the order of (3 → 2 → 1).
2. Flip open the CPU cover.
3. Use the handle on the CPU tray to detach the CPU tray from the CPU rack.
4. Using the handle on the CPU tray, insert the new CPU tray with the installed CPU back into the CPU rack.

⚠ Note: Ensure that the CPU is oriented correctly in the CPU tray, aligning the triangle on the CPU with the top left corner of the CPU carrier.

5. Flip the CPU rack containing the installed CPU into the correct position over the CPU socket.
6. Position the CPU cover over the CPU socket in the appropriate location.
7. Tighten the screws of the CPU cover in the order of (1 → 2 → 3) to secure the CPU cover in place. Torque: 16.1 kgf-cm (14.0 lbf-in).
8. Repeat steps 1-7 for the second CPU.
9. To remove the CPU, follow steps 1-7 in reverse order.





- Installation of heatsink

Before starting to install the heatsink, please read the following guidelines:

● Before installing the heatsink, please be sure to turn off the computer and unplug the power cord from the power outlet to prevent damage to the hardware.

● Unplug all cables from the power outlet.

● Disconnect all communication cables from their ports.

● Place the system unit on a flat and stable surface.

● Follow the instructions to turn on the system.

Warning!

Before beginning the component installation, attempting the steps described in the following sections without shutting down the server may lead to severe damage. Only qualified technicians should carry out these procedures.

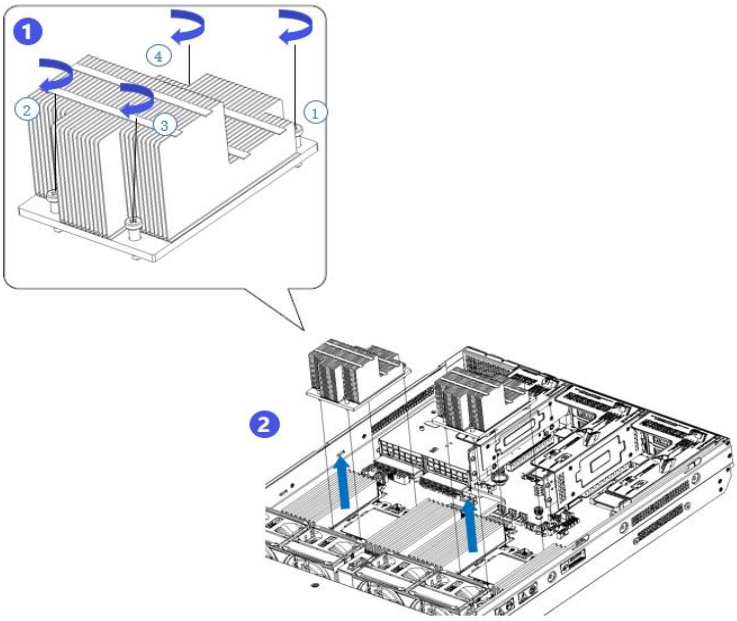
Note: When installing the heatsink to the CPU, use a Phillips screwdriver to tighten the 4 retaining nuts in the order of 1-4.

Follow the instructions below to remove and install the heatsink:

1. Loosen the screws that secure the heatsink in reverse order (4 → 3 → 2 → 1).

2. Lift the heatsink and remove it from the system.

3. To install the heatsink, reverse steps 1-2, ensuring that you tighten the screws in the correct order (1 → 2 → 3 → 4), as shown in the diagram.

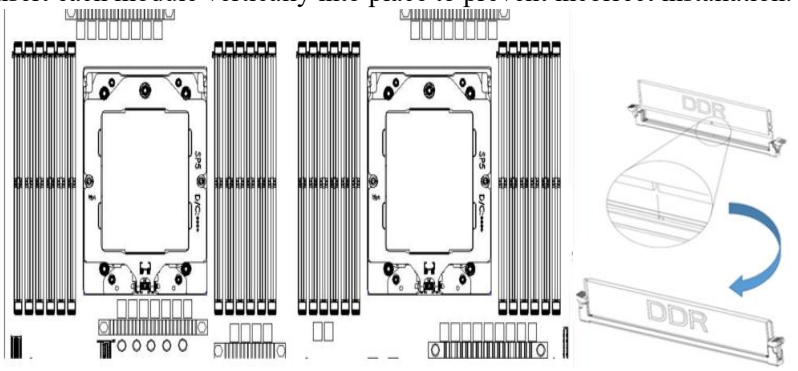


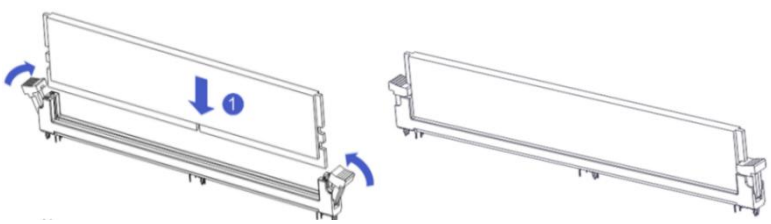
⚠ Note: The pins on the motherboard are extremely fragile and can be easily damaged. To avoid damaging the motherboard, do not touch the processor or the contacts in the processor socket.

- Installation of memory

The 12 memory slots controlled by CPU 0 / CPU 1 on the motherboard are: DIMM_A, DIMM_B, DIMM_C, DIMM_D, DIMM_E, DIMM_F, DIMM_G, DIMM_H, DIMM_I, DIMM_J, DIMM_K, and DIMM_L.

Ensure the notch on each memory module aligns with the notch in the corresponding DIMM slot, and insert each module vertically into place to prevent incorrect installation.

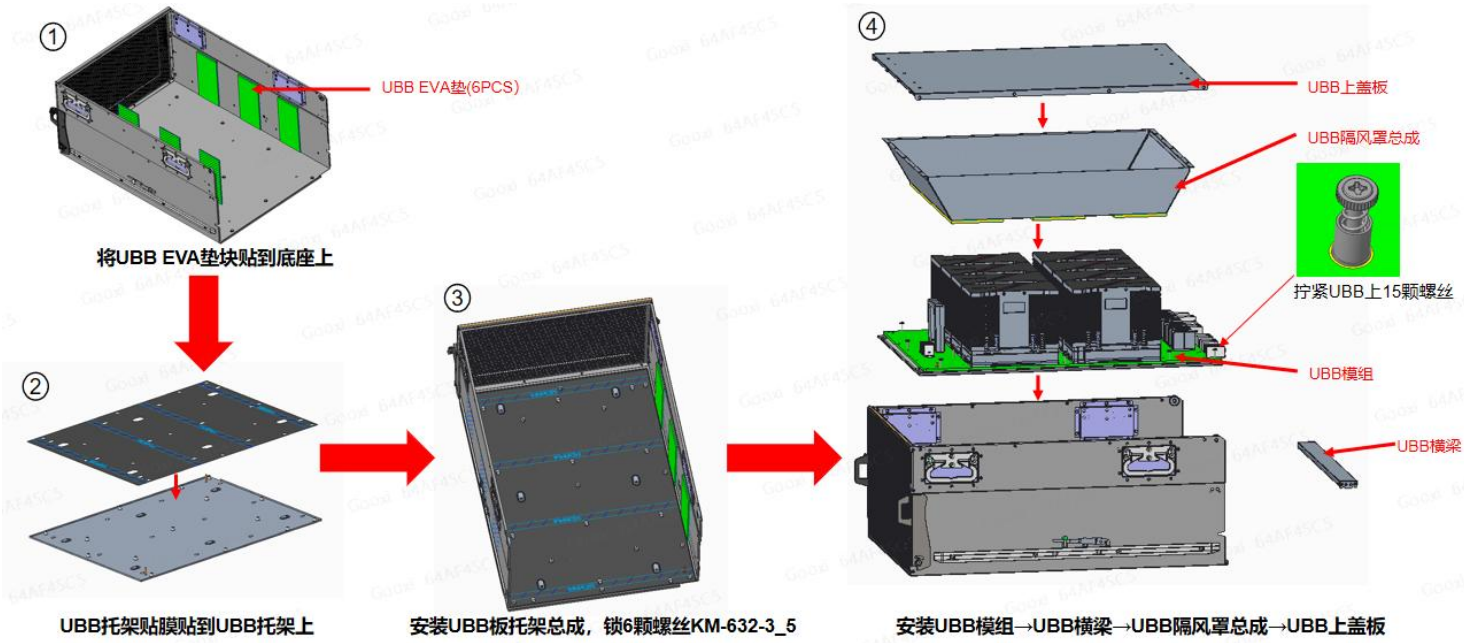




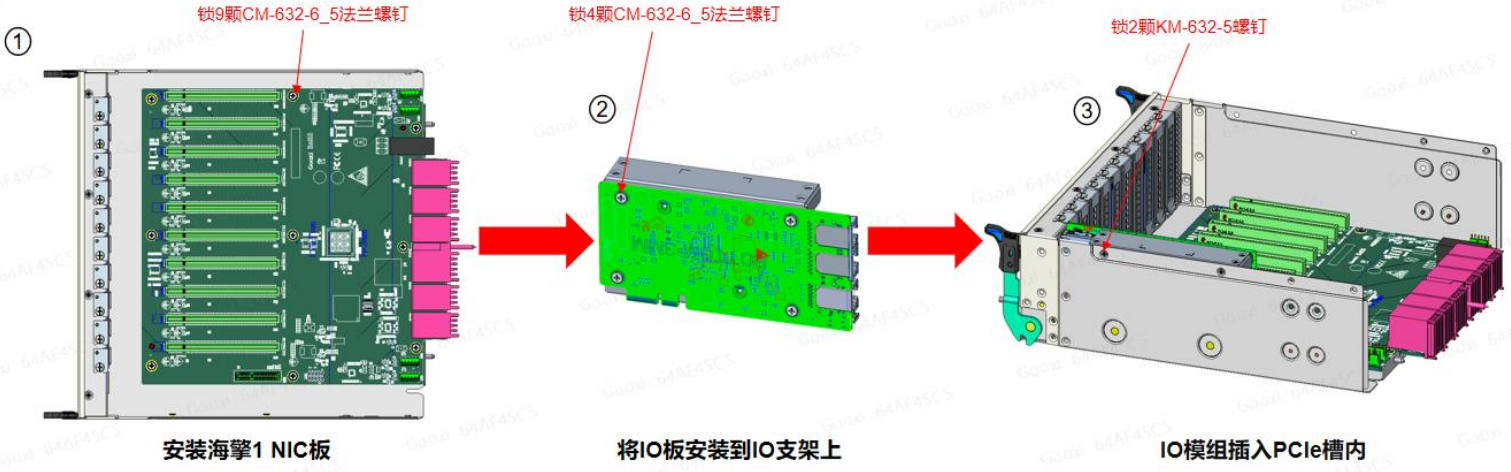
⚠ Note: For this motherboard, please use memory modules with the same CAS latency. It is recommended to use memory from the same manufacturer, with identical capacity and frequency.

⚠ Additionally, please note:
Within the same channel, the larger capacity memory must be installed in the first slot.

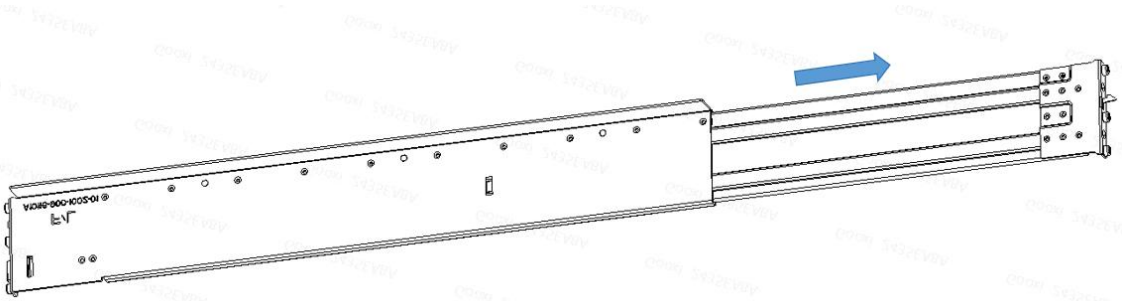
- UBB Node Assembly



- NIC Node Assembly

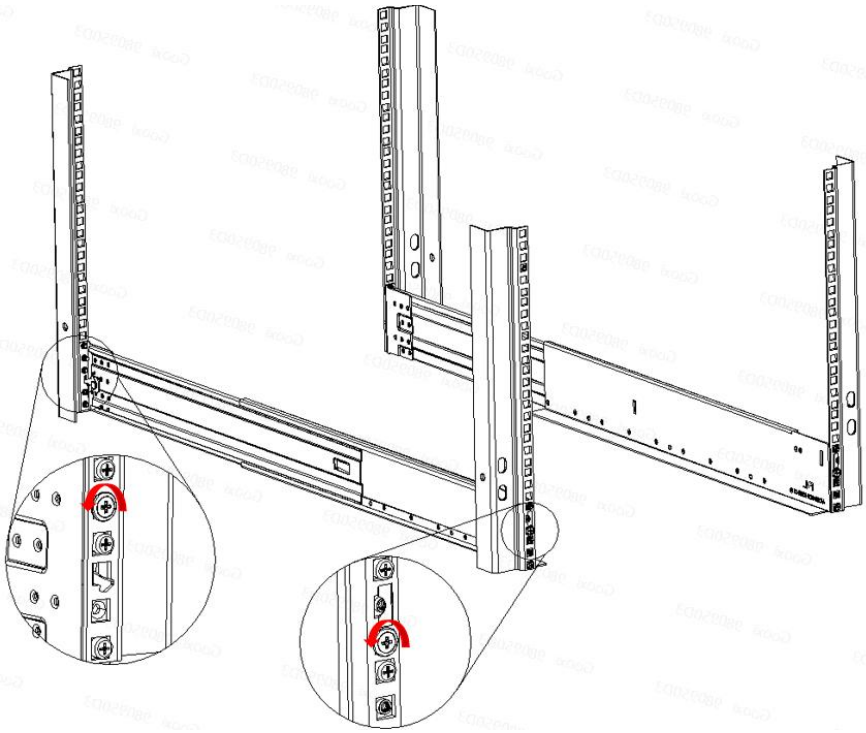


- Server slide rail installation
  - Step 1: Prepare two slide rails and pull out the inner rail.



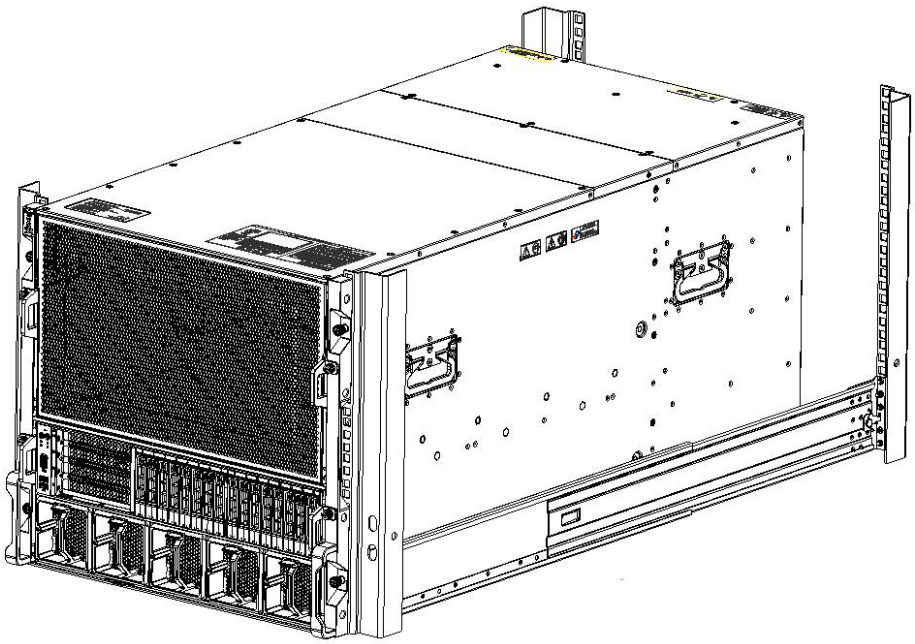
- Step 2: Fasten the inner rails to the sides of the chassis.

- Step 3: Install the outer rails on the cabinet brackets and secure the screws.



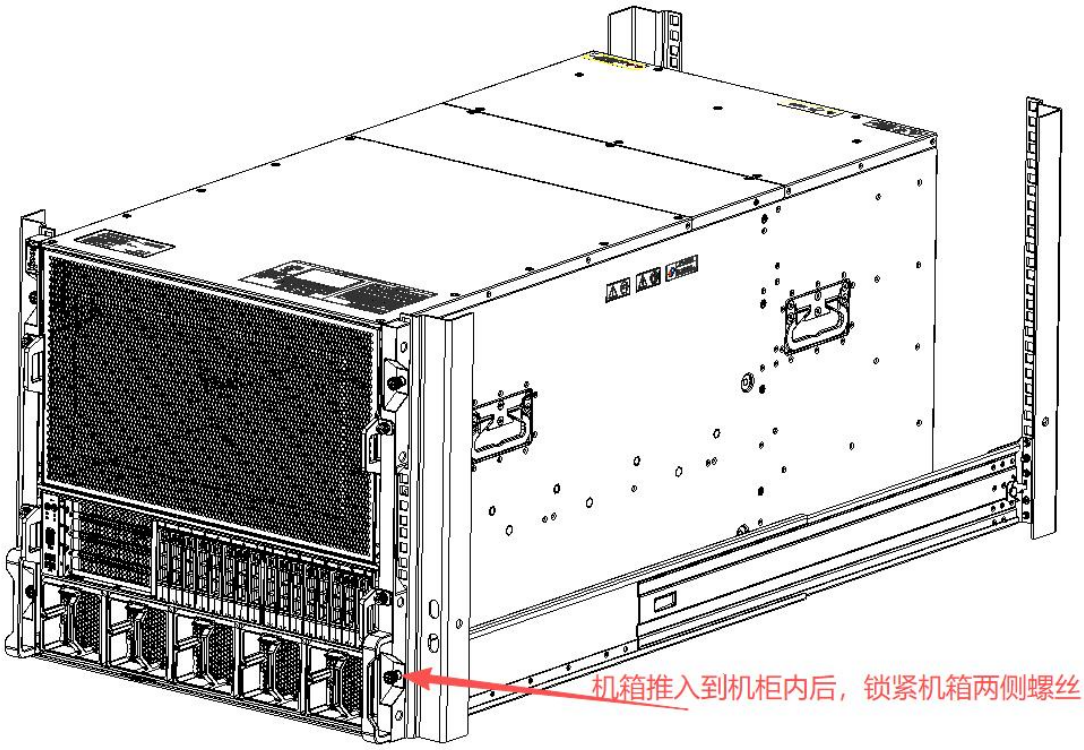
⚠ Note: When installing the guide rail, align it with the U-mark, and push it into place until you hear a click sound. Secure it firmly using M5 screws.

- Step 4: Align the chassis with the inner rails installed with the outer rails for installation.



⚠ Note: When you push the chassis forward, you will hear a snapping sound. If you can't push it, you need to pull down the buckle of the inner rail to continue to push the chassis gently.

- Step 5: Push the chassis forward until it cannot slide and make sure that the screws are securely installed to complete the installation.



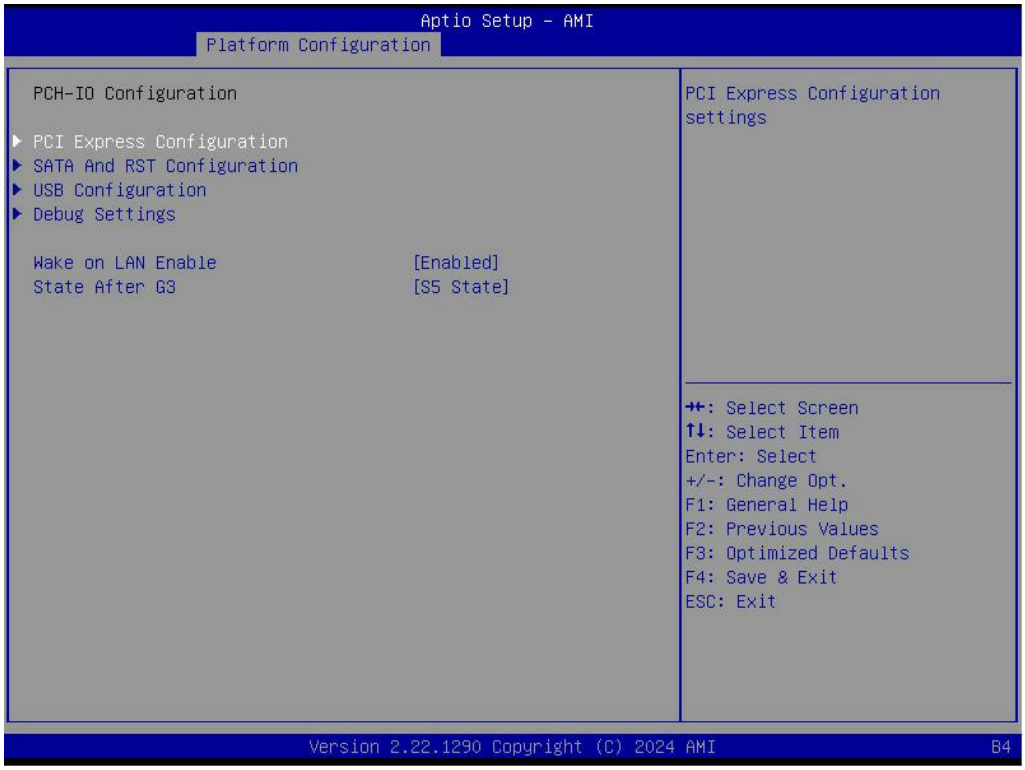
Note: During equipment maintenance, it is necessary to loosen the panel screws and

pull the chassis lightly. Do not push or pull the chassis at random speed to avoid damage to the equipment.

4. Configuration Instructions

4.1 Initial Configuration

- Power on and start
  - Before powering on, it is necessary to ensure that all configurations of the server are installed in accordance with the corresponding specifications and standards, and keep the server turned off but not unplugged from the power supply. And all cables are connected properly, and the power supply voltage is consistent with that of the device.
  - During the power-on process, please do not plug in hard drives, power modules, network cables or other external devices and cables.
  - If the server has just been unplugged from the power supply, please wait for 1 minute before turning on the power.
  - Server power-on power status:
    The power is on, but the server is not booting up. The power indicator light is yellow.
    Power on, the server starts up, and the power indicator light is green.
  - How to power on the server:
    The server's default power-on policy is "Power-On Boot," which means the server will automatically power on when it receives power. Users can modify this setting in the BIOS Setup interface.
  - Press the <DEL> or <ESC> key on the keyboard during the boot process to enter the BIOS Setup interface, and find the following interface:



- State After G3

  The menu options for setting the state after entering G3 status are:

  S0 State：Power on and start up directly

  S5 State：You need to press the Power button to turn on the power

  Default: S5 State

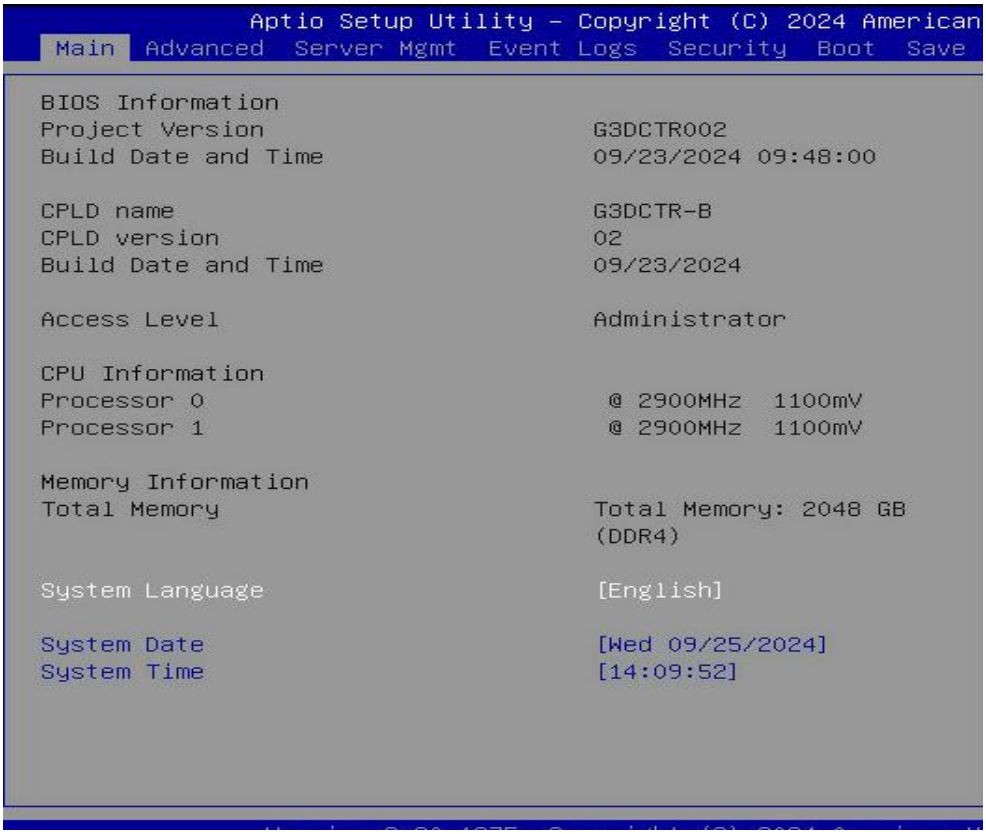
- Logging into the iBMC management interface allows for remote power on/off control.
- Enter the BMC IP address -> enter the BMC account&password -> find the remote control interface -> power controller -> It can be executed according to requirements.

For detailed usage of BMC and BIOS, please refer to the corresponding user manual.

- Initial data
  - BMC default account: admin
  - BMC default password: Gooxi@123.
  - BMC default address: 192.168.100.1
  - BIOS Default Password: N/A

- Configure BIOS

Press the <DEL> or <ESC> key on the keyboard during power-on and start-up to enter the BIOS Setup interface, as shown below:



The Main interface displays the basic BIOS system information, such as the BIOS version, CPU model, and memory capacity (the specific content may vary depending on the product model). You can also set the system time here. For detailed instructions, please refer to the "BIOS User Manual".

- Navigation key description:

→←: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

F3: Optimized Defaults

F4: Save & Reset

ESC: Exit

- Configure BMC

When the server is powered on, make sure that the BMC dedicated management network port cable is properly connected.

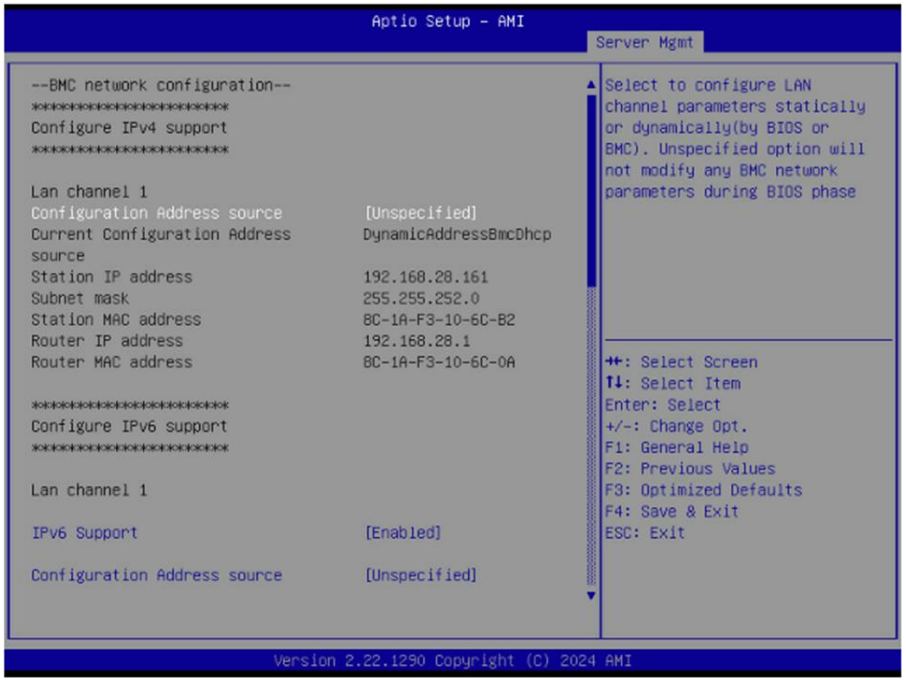
Use another device, make sure it is in the same LAN as the BMC management network, and

enter the BMC IP address on the web page.

Check the BMC IP address as follows:

- After the server is powered on, turn it on. Pay attention to the POST process when starting the server. In the lower left corner of the logo screen, the IP address is displayed.

- After the server powers on, pay attention to the POST process. Press the <DEL> or <ESC> key on the keyboard to enter the BIOS Setup interface. Switch to the following screen:



Configure IPV4 support：

- Configuration Address source
- Configure the BMC IP address allocation mode, the menu options are:

  Unspecified: Do not change BMC parameters

  Static: BIOS static IP setting

  DynamicBmcDhcp: BMC runs DHCP to dynamically assign IP

  DynamicBmcNonDhcp: BMC runs the Non-DHCP protocol to dynamically assign IP

  Default: Unspecified

When changing from "Unspecified" to other parameters, saving and rebooting will result in the options reverting to the "Unspecified" value. There is no need to configure the BMC IP during every startup process.

- When the "Configuration Address Source" option is set to "Unspecified," it will display the network parameters (IPv4) for the system's shared Ethernet

port. The displayed information includes the current IP configuration method, BMC IP, subnet mask, MAC address, router IP, and router MAC.

- BMC Dedicated Management Channel
- Configuration Address source
- Configure the BMC IP address allocation mode, the menu options are:

  Unspecified: No change to BMC parameters

  Static: BIOS static IP setting

  DynamicBmcDhcp: BMC runs DHCP to dynamically assign IP

  DynamicBmcNonDhcp: BMC runs the Non-DHCP protocol to dynamically assign IP

  Default: Unspecified
- When changing from "Unspecified" to other parameters, saving and rebooting will result in the options reverting to the "Unspecified" value. There is no need to configure the BMC IP during every startup process.

- When the "Configuration Address Source" option is set to "Unspecified," it will display the network parameters (IPv4) for the system's dedicated Ethernet port. The displayed information includes the current IP configuration method, BMC IP, subnet mask, MAC address, router IP, and router MAC.
- Configure IPV6 support
- IPV6 Support
- Choose whether to support IPV6, the menu options are:

  Enabeld: support IPV6

  Disabled: does not support IPV6

  Default: Enabeld
- When changing from "Unspecified" to other parameters, saving and rebooting will result in the options reverting to the "Unspecified" value. There is no need to configure the BMC IP during every startup process.

- When the "Configuration Address Source" option is set to "Unspecified," it will display the network parameters (IPv6) for the system's shared Ethernet port.
- IPV6 Support
- Choose whether to support IPV6, the menu options are:

  Enabeld: support IPV6

  Disabled: does not support IPV6

  Default: Enabeld
- When changing from "Unspecified" to other parameters, saving and rebooting

will result in the options reverting to the "Unspecified" value. There is no need to configure the BMC IP during every startup process.

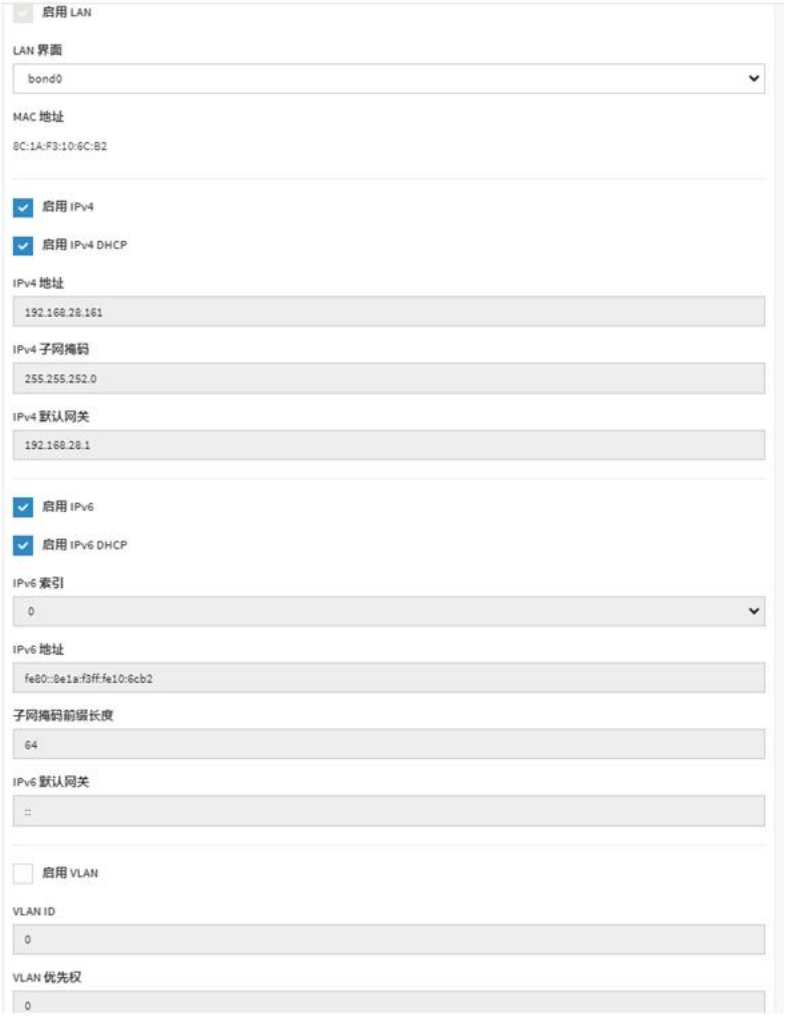
- When the "Configuration Address Source" option is set to "Unspecified," it will display the network parameters (IPv6) for the system's dedicated Ethernet port.

Log in to the BMC management interface

Enter the IP address on the web page, as shown in the figure:

After entering the account and password, the system enters the home page, where the BMC IP address can be set in the management interface.

On the left side of the interface, navigate to Settings Page -> Network Settings -> Network IP Settings, as shown below:



This page sets the IP address of the BMC management network port.

5. Appendix

(Common fault diagnosis)

No display after power on

- Make sure the monitor cable is properly connected and the power indicator on the monitor lights up when the monitor is powered on.
- Ensure the monitor is connected to the server.
- If the above steps do not resolve the issue, try replacing the monitor with a known working one to confirm if the original monitor is faulty.
- If the issue persists, please contact Gooxi's customer service department for resolution.

Front Panel Indicator Lights Alarm

- Refer to the instructions in the manual to determine the specific alarm information indicated by the front panel lights and buttons.
- For power failure indicator lights alarm, check if the power module indicator lights on the rear window of the server are abnormal.

  If the power module indicator lights are normal, please log in to the BMC web interface to check the BMC logs for any alarms. If there are alarms, please record the specific alarm information and contact Gooxi’s customer service department for resolution.

  If the power module indicator lights are not normal, please ensure that the server, power module, and power cords are functioning correctly.
- For system alarm indicator lights, first check the external environment.
- For other indicator light alarms, please contact Gooxi’s customer service department for resolution.

Abnormal Hard Drive Indicator Lights

- Ensure the hard drives are properly installed.
- Refer to the instructions in the manual to determine the specific alarm information indicated by the rear panel lights and buttons.
- Confirm if the RAID card is configured correctly.
- Check for any drive dropouts during OS installation. If this occurs, please contact Gooxi’s customer service department for resolution.

Unable to Use RAID Card

- Ensure the RAID card is properly installed.

- Try reseating the RAID card and PCIe adapter to confirm if they are functioning correctly.
- If replacing the known working RAID card doesn't resolve the issue, please restore to factory settings and update the BIOS version. If the problem persists contact Gooxi's customer service department for further assistance and resolution.

IPMI Connection Failure

- Confirm if the BMC function is correctly enabled in the BIOS.
- Check if the switch and network cables are functioning properly. If the regular IPMI connection is not effective, check the network environment.
- Set static or dynamic IP and ensure ping connectivity. If the web interface does not open, try using a newer version of Internet Explorer.
- If the problem is not resolved, please contact Gooxi's customer service department for further assistance and resolution.

6. Scrap Recycling

- For environmental protection and resource reuse, we earnestly ask you to properly handle discarded server products.
- Before discarding the server, we recommend that you completely demagnetize the storage media, clear data, and physically destroy them to ensure that your personal data is not leaked.
- In order to recycle and reuse, please hand over the discarded server to local recycling companies for processing. This will ensure that electronic waste is properly handled and can be put back into use after environmental treatment.