Gooxi

AS4110G-G4 GPU Server User Manual

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Shenzhen Gooxi Information Security Co., Ltd.

Gooxi

Statement

Copyright Statement

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Foreword

This manual is the product technical manual for the AS4110G-G4 GPU server, mainly introducing and explaining the appearance, structure, hardware installation, and basic configuration of this product.

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.

Modification Record

Manual version	Release date	Modification instructions
V1.0	2024-02-22	manual release

Contents

1. Product Introduction

1.1 Product Overview

AS4110G-G4 is a dual-socket GPU server that supports 10 dual-width GPU cards. It features 4 front bays for 3.5-inch drives, with optional support for 10 2.5-inch drives, and 4 rear bays for 2.5-inch drives. This server showcases exceptional capabilities in computational performance, storage expansion, and stability, making it ideal for emerging fields like artificial intelligence. It's suitable for applications such as big data analytics, 3D graphics, video decoding, deep learning, scientific computing, etc. The main configurations include:

● Supports 2 4th/5th Generation Intel® Xeon® Scalable processors, with support for 16 DDR5 DIMMs.

● Front bays support expansion for either 43.5-inch drives or 102.5-inch drives, while rear bays support 2*2.5-inch drives.

● Front supports 10 full-height double-width full-length GPU cards; rear supports 5 half-height PCIe expansion slots.

1.2 Product Structure

the exploded view of the server is shown in the figure below:
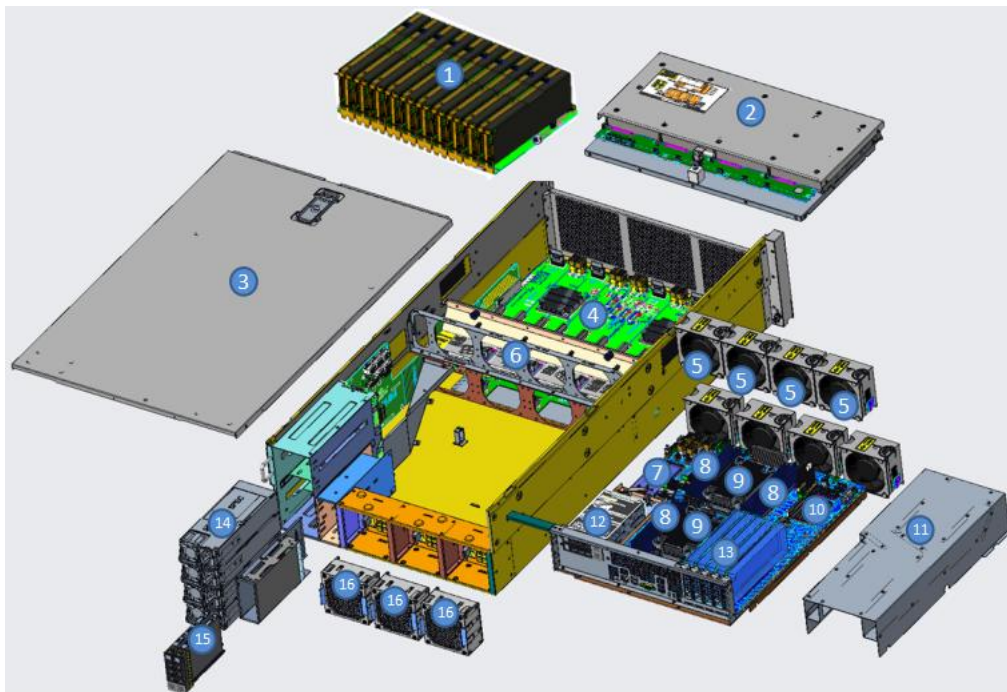
Structure diagram 1-1

No.	Name	No.	Name
1	GPU Module	9	CPU Cooling Module

2	Upper 3.5-inch Hard Drive Module	10	Motherboard
3	Rear Upper Cover	11	Air Duct
4	Switch Board	12	Rear 2*2.5-inch Module
5	Fan Module	13	PCIe Expansion Slots
6	Fan Bracket	14	Power Supply Module
7	M.2	15	2*2.5-inch Hard Drive
8	Memory Slots	16	Rear Fan Module

Table 1-1

1.3 Logical Structure

The motherboard logic is shown in the figure below:
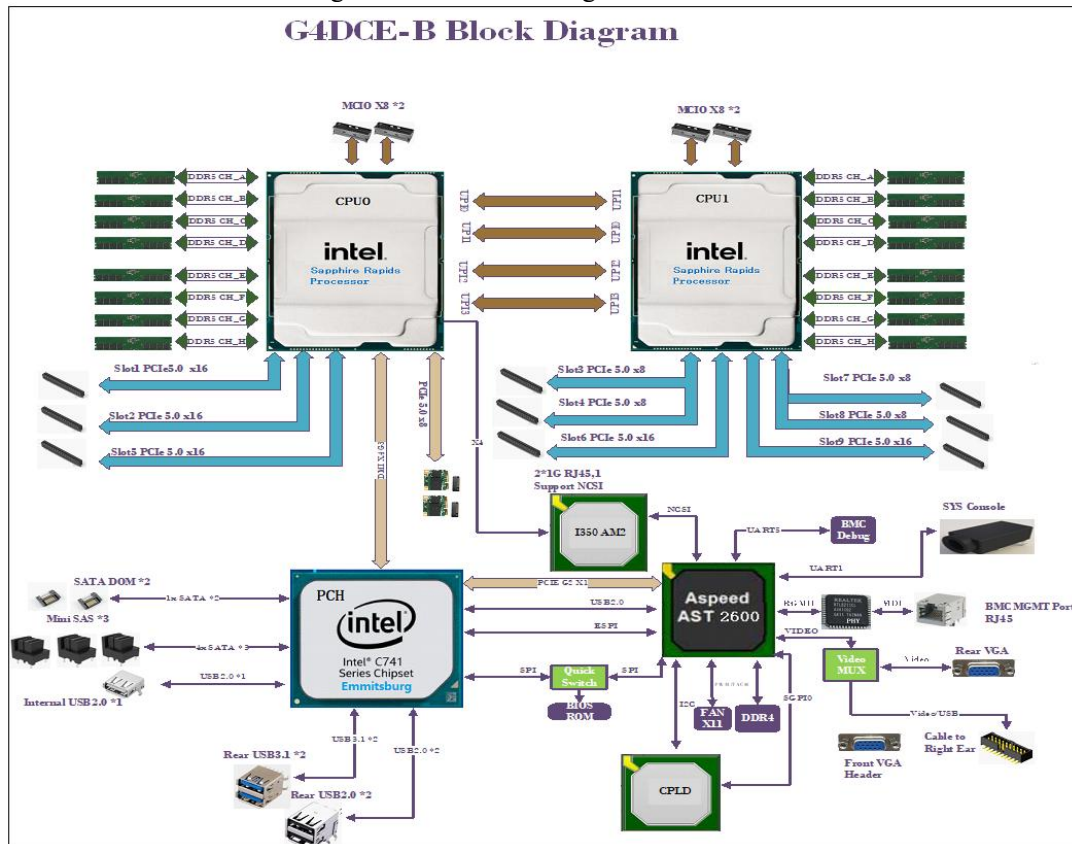
Motherboard logic block diagram 1-2

- CPU supports 1/2 Intel® Xeon® Scalable Processors (Sapphire Rapids/Emerald Rapids), LGA4677 socket, TDP power consumption 350W.

- A single CPU supports 8 DDR5 channels, and 2 CPUs support a total of 16 DDR5 slots; supports a single capacity of 16GB, 32GB, and 64GB.

- DDR5 type: DDR5 RDIMM, supports up to 5600MHz.

- 3 PCIe5.0 x16 from CPU0, 2 PCIe5.0 x8 from CPU1.

- Supports 2 M.2 SSDs (PCIe 5.0x4 22110 backward compatible).

- Supports 2 Gigabit network ports, using I350 chip, from CPU0.

- PCH uses INTEL LEWISBURG C741 series chipset.

- Built-in 3 MiniSAS SFF-8643 connectors and 2 SATADOM.

- The BMC chip uses ASPEED's AST2600 control chip, supports IPMI remote management, VGA output port, and dedicated Gigabit RJ45 management network port.

1.4 Product Specifications

Product Series	AS4110G-G4
Form Factor	4U 4-bay
Dimension	850mm*433mm*176.5mm(L*W*H)
Processor	Supports 1 or 2 Intel® Xeon® Scalable series processors
Memory	16 DDR5 slots, supports DDR5 RDIMM, maximum supported frequency 5600MHz; maximum capacity per module is 64GB
Internal Storage Interfaces	3 MiniSAS HD interfaces, 2 SATA DOM interfaces, 2 PCIe 5.0 M.2 SSD interfaces (22110 compatible)
Front Hard Drive	Front 4*3.5-inch SAS/SATA hot-swappable hard drives
Rear Hard Drive	Standard 2*2.5-inch SAS/SATA hard drives, optional 2*2.5-inch NVMe hard drives, maximum support for 4 drive bays
External Ports	Front Ports: 2 USB 3.0, 1 VGA Rear Ports: 1 VGA, 1 COM port, 2 USB 3.0, 2 USB 2.0, 1 RJ45 Gigabit management port, 2 RJ45 Gigabit network ports
PCIe Expansion	Front Support: 10 full-height double-width PCIe 4.0x16 slots Rear Support: 5 half-height PCIe slots, 2 PCIe 5.0x8 (slot1, 4), and 3 PCIe 5.0x16 (slot2, 3, 5)
Security	Supports TPM module
Power Supply	1600W, 2000W, 2600W, 3200W 3+1 redundant power supply (select power module according to actual system power consumption)
Fan	Standard 11 hot-swappable 8038 fans
IPMI	IPMI 2.0
Management Port	1 dedicated RJ45 management port
Operating Temperature & Humidity	Temperature 5°C to 35°C / Humidity 20% to 80% RH (non-condensing)
Storage Temperature & Humidity	Short-term storage (≤72H): Temperature -40°C to 70°C / Humidity 20% to 90% RH (non-condensing) (including packaging) Long-term storage (>72H): Temperature 20°C to 28°C / Humidity 30% to 70% RH (non-condensing) (including packaging)

Table 1-2

2. Hardware Description

2.1 Front Panel

2.1.1 Appearance

- 4 x 3.5-inch hard drives
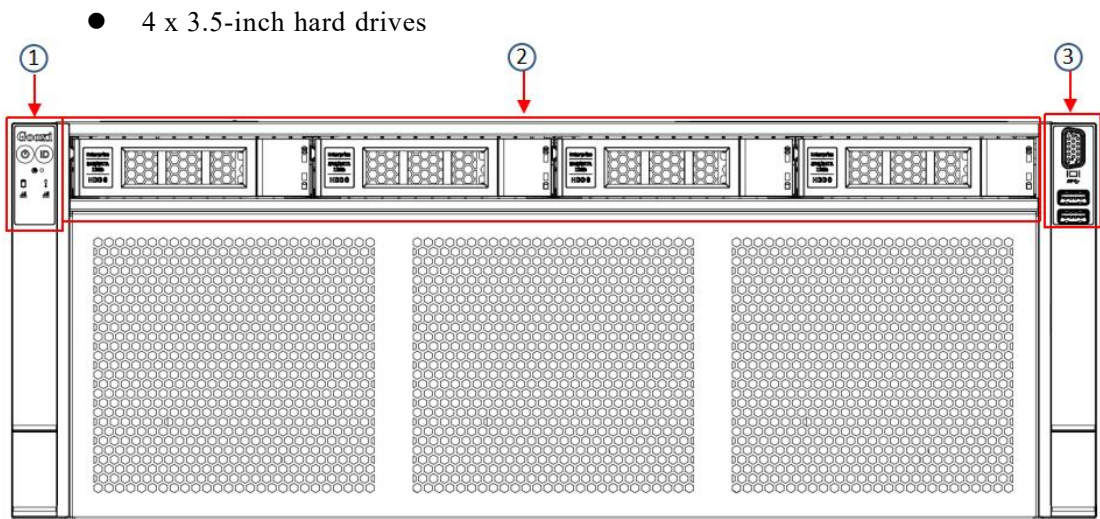
Figure 2-1

No.	Name	No.	Name
1	left ear assembly	3	right ear assembly
2	3.5-inch hard drive		

table 2-1

2.1.2 Indicator lights and buttons
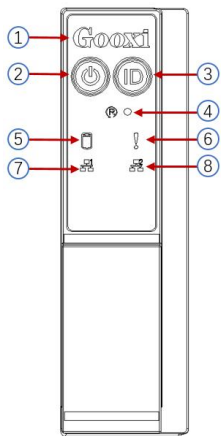
Figure 2-2

No.	Indicator light/button	No.	Indicator light/button
1	GOOXI Logo	5	Hard Drive Activity Indicator Light

2	Power Switch Button/Indicator Light	6	System Alarm Indicator Light
3	UID Button/Indicator Light	7	Network Port 1 Connection Status Indicator Light
4	Reset Server Button	8	Network Port 2 Connection Status Indicator Light

LED status description		
logo	Indicator light/button	status description
Gooxi		GOOXI logo
(power icon)	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: Press the button shortly in the power-on state, and the OS will shut down normally. Press and hold the button for 6 seconds in the power-on state to force the server to power off. Press the button shortly in the power-on state to start the machine.
(ID icon)	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 this button to turn on/off the positioning light.
(R icon)	Reset server button	Press to restart the server
(drive icon)	Hard drive indicator	If there is data read or write activity on the PCH, the hard drive indicator will blink.
(! icon)	System Alarm Indicator	System warning indicator. Including system alarms, fan alarms, power supply alarms, etc., which can be viewed through the IPMI management software
(network icon)	Network Port 1 Connection Status Indicator Light	Corresponds to the Ethernet port indicator of the network card. Green (steady on): Indicates that the network port is connected normally. Off: Indicates that the network port is not in use or faulty. Note: Corresponds to two 1GE network ports on the motherboard.

	Network Port 2 Connection Status Indicator Light	Corresponds to the Ethernet port indicator of the network card. Green (steady on): Indicates that the network port is connected normally. Off: Indicates that the network port is not in use or faulty. Note: Corresponds to two 1GE network ports on the motherboard.

Table 2-2

2.1.3 Interface

● Interface location
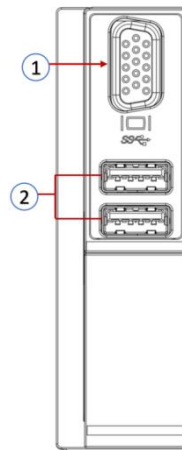
Figure 2-3

No.	Name
1	VGA interface
2	USB3.0 interface

Table 2-3

● Interface Description

Name	Type	Qty	Description
VGA interface	DB15	1	Used for connecting display terminals, such as monitors or KVM
USB interface	USB3.0	2	For accessing USB devices

Table 2-4

2.2 Rear Panel

2.2.1 Appearance

● Appearance of the rear panel
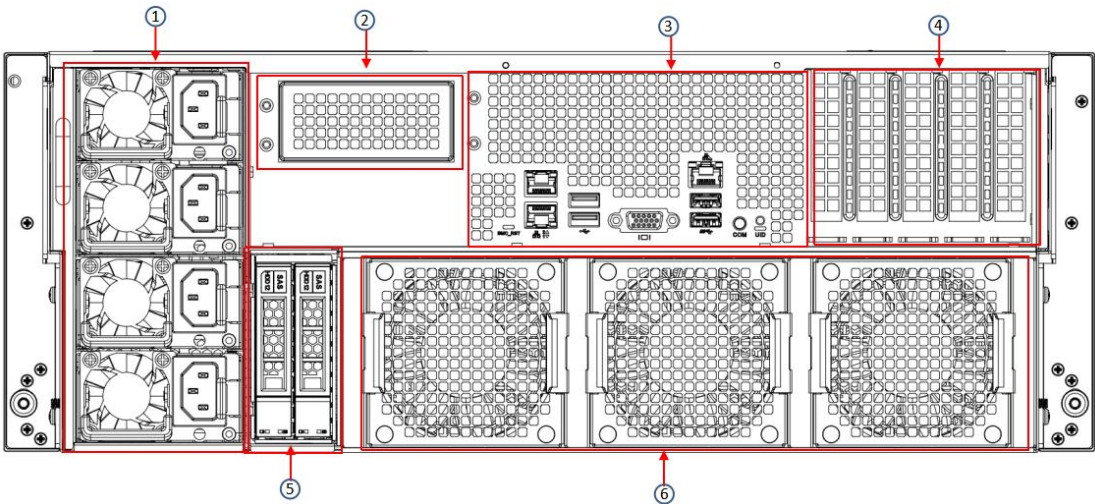
Figure 2-4

No.	Name	No.	Name
1	power module	4	PCIE expansion slot
2	2*2.5 inch hard drive module	5	2.5 inch hard drive module
3	I/O panel	6	8038 fan module

Table 2-5

2.2.2 Indicator lights and buttons

● Rear Panel Indicators
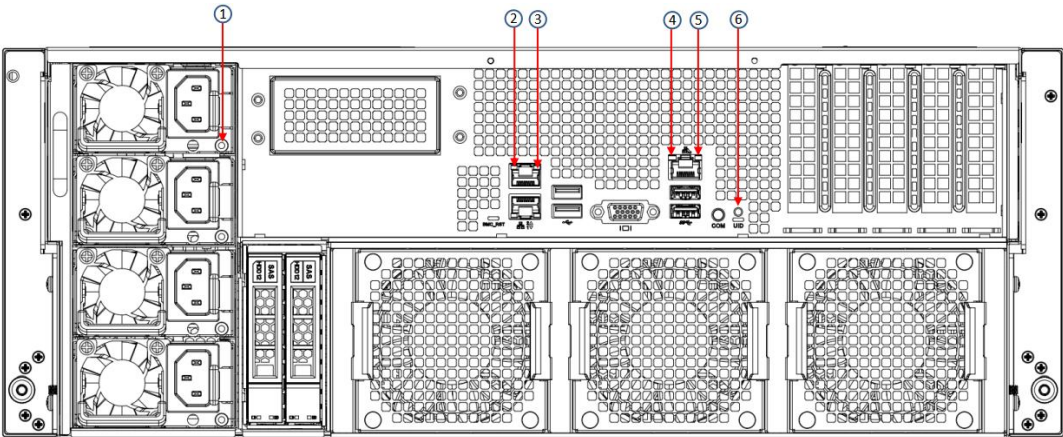
Figure 2-5

No.	Name	No.	Name
1	Power module indicator	4	Management network port connection status indicator
2	Network port connection status indicator	5	Management network port data transmission status indicator
3	Network port data transmission status indicator	6	UID indicator

表 2-6

● Description of Power Module Indicators

Indicator light/button	Status description

Power module indicator	Green (steady on): Indicates that the input and output are normal. Orange (steady on): Indicates that the AC power cord is unplugged or the power module is missing, and only one parallel-connected power module has AC input; the power module failure causes the output to be turned off, such as OVP, OCP, fan failure, etc. Green (1Hz/blinking): Indicates that the input is normal, the voltage is too low (less than 12V) or the power supply is in the intelligent standby mode. Green (2Hz/blinking): Indicates the firmware is undergoing online upgrade. Orange (1Hz/blinking): Indicates continuous power warning events during power operation, such as high temperature, high power, or large current. Off: Indicates no AC power input.

Table 2-7

2.2.3 Interface

● rear panel interface
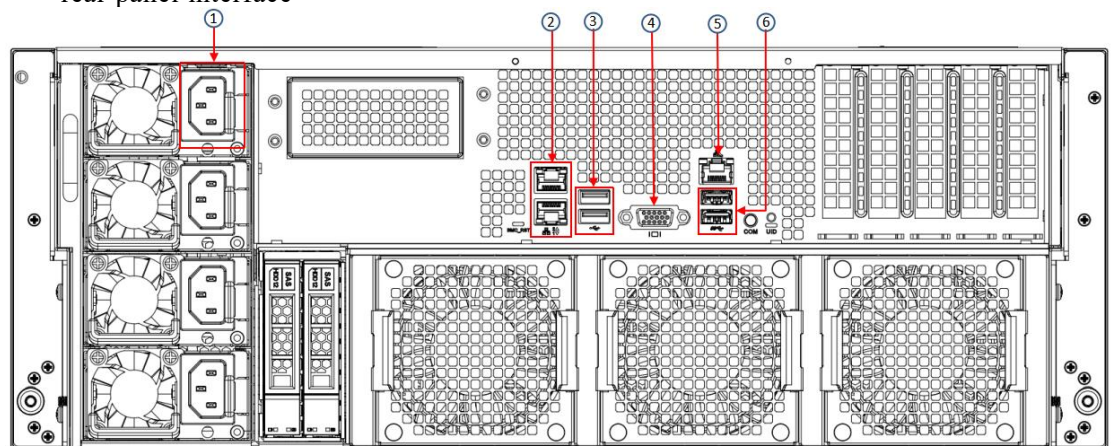
Figure 2-6

No.	Name	No.	Name
1	Power module	4	VGA interface
2	Gigabit Ethernet por	5	Management network port
3	USB2.0 interface	6	USB3.0 interface

Table 2-8

● Rear panel interface description

Name	Type	Qty	Description
VGA Port	DB15	1	Used to connect display terminals, such as monitors or KVMs.
Management Port	GE BASE-T	1	Provides an outbound 1000Mbit/s Ethernet port. This port allows for server management.
USB Port	USB3.0	2	Provides outbound USB ports for connecting USB devices.

	USB2.0	2	Note: When using external USB devices, please ensure the USB device is in good condition to prevent abnormal server operation.
RJ45 Gigabit Network Port	GE BASE-T	2	Server network ports
Power Module AC Port	/	4	You can choose the number of power modules according to your actual needs, but make sure that the rated power of the power supply is greater than the rated power of the entire system.

Table 2-9

2.3 Processor

- Supports 1 or 2 Intel Xeon Scalable CPUs.

- When configuring with 1 processor, it must be installed in the CPU 0 socket.

- Processors installed in the same server must be of the same model.

- For specific optional system components available for purchase, please consult Gooxi sales.
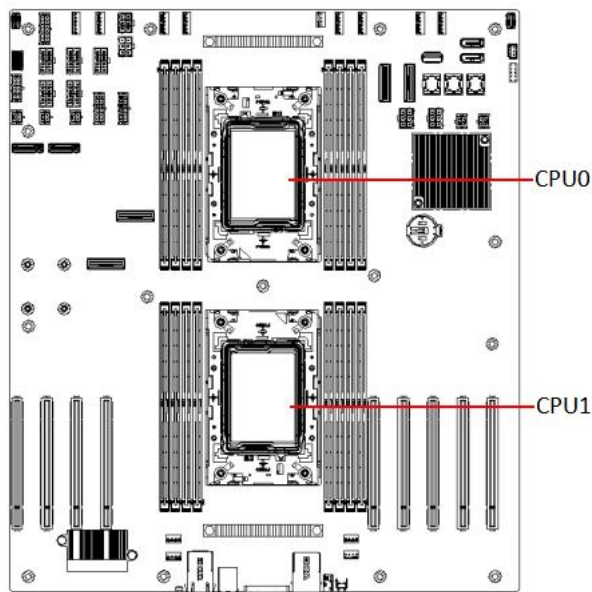
Figure 2-7

2.4 Memory

2.4.1 Memory slot location

This motherboard utilizes the Eagle Stream platform, paired with Intel® Xeon® Sapphire Rapids/Emerald Rapids CPUs. Each CPU supports 8 channels, with 2 DIMMs per channel.

The motherboard can support 16 DIMMs in total, with support for DDR5 RDIMMs memory. Memory frequencies supported include 4400/4800/5600MHz. The configuration is as shown in the following diagram:

- memory slot location
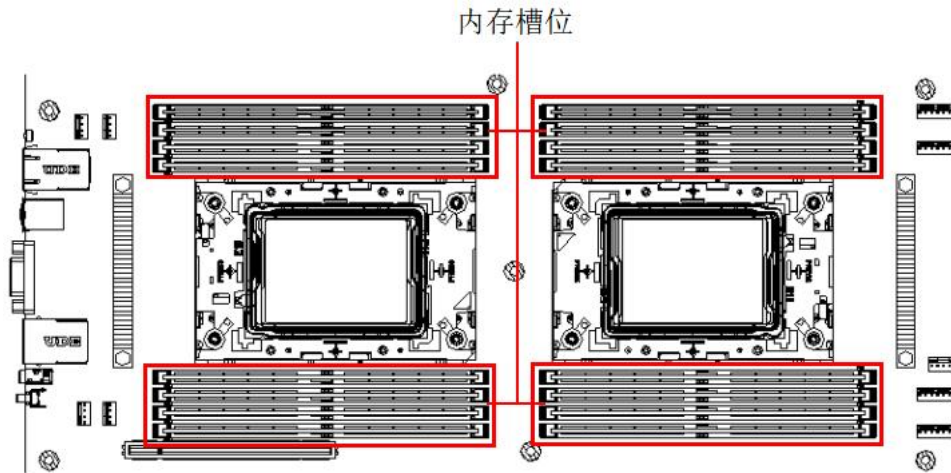
Figure 2-8

2.4.2 Memory Compatibility Information

The motherboard supports DDR5 RDIMM memory, with memory frequencies supported at 4400/4800/5600.

Note:

- The same server must use the same model of DDR5 memory, and all memory modules must operate at the same speed. The speed value is the minimum of the following:
- The memory speed supported by the specific CPU.
- The maximum operating speed of the specific memory configuration.
- Mixing different types (RDIMM, LRDIMM) and specifications (capacity, bit width, rank, height, etc.) of DDR5 memory is not supported.
- Different models of Intel® Xeon® Scalable processors support different maximum memory capacities.

2.4.3 Memory installation guidelines

The server can accommodate a maximum of 16 DDR5 memory modules. Memory installation must adhere to the memory installation principles.

DDR5 QTY	内存槽位				CPU0/1				
	DIMMH1	DIMMG1	DIMMF1	DIMME1		DIMMA1	DIMMB1	DIMMC1	DIMMD1
1						DDR5			
							DDR5		
				DDR5					
		DDR5							
2		DDR5				DDR5			
				DDR5				DDR5	
4		DDR5		DDR5		DDR5		DDR5	
6		DDR5	DDR5	DDR5		DDR5		DDR5	DDR5
	DDR5	DDR5		DDR5		DDR5	DDR5	DDR5	
	DDR5		DDR5	DDR5			DDR5	DDR5	DDR5
	DDR5	DDR5	DDR5			DDR5	DDR5		DDR5
8	DDR5	DDR5	DDR5	DDR5		DDR5	DDR5	DDR5	DDR5

Figure 2-9

2.5 Storage

2.5.1 Hard drive configuration

Configuration	Maximum number of hard drives (pieces)	Description
4x3.5 inch hard drive	Front – Slots 0~3 support SAS/SATA hard drives	SAS hard drive needs to be supported by optional SAS pass-through card or RIAD card
4x2.5 inch hard drive	Rear - Slots 0~1 support SAS/SATA hard drives	SAS hard drives require optional SAS pass-through cards or RAID cards for support
	Rear - Slots 2~3 support NVMe hard drives (optional)	NVMe hard drives require optional Retimer cards for support

Table 2-10

2.5.2 Hard drive serial number

- 4 x3.5 inch front hard drives
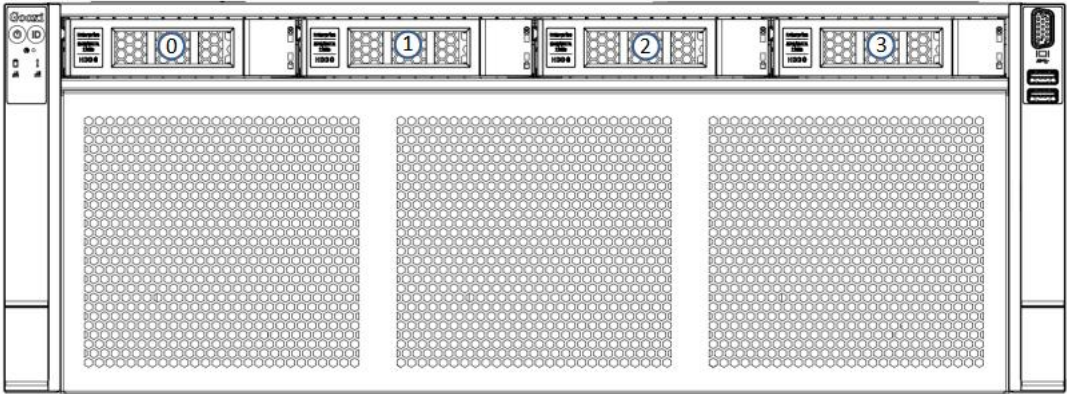
Figure 2-10

2.5.3 Hard drive status indicator
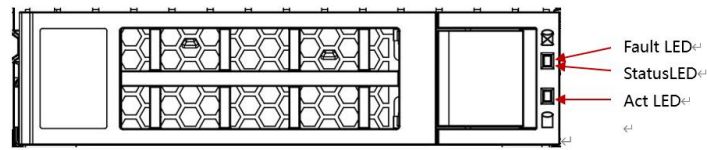
Figure 2-11

- hard drive status indicator description

Function	Act LED	Status LED	Fault LED
hard drive in place	always on	OFF	OFF
hard drive activity	blinking 4Hz/sec	OFF	OFF
hard drive positioning	steady on	blinking 4Hz/second	OFF
hard drive error	steady on	OFF	steady on
RAID rebuild	steady on	OFF	blinking 1Hz/second

Table 2-11

2.6 Power Supply

- Supports 4 power modules.

- Supports AC or DC power modules.

- Supports hot-swappable.

- Supports 3+1 redundancy.

- Power module models installed in the same server must be identical.

- For specific optional system components available for purchase, please consult Gooxi sales.
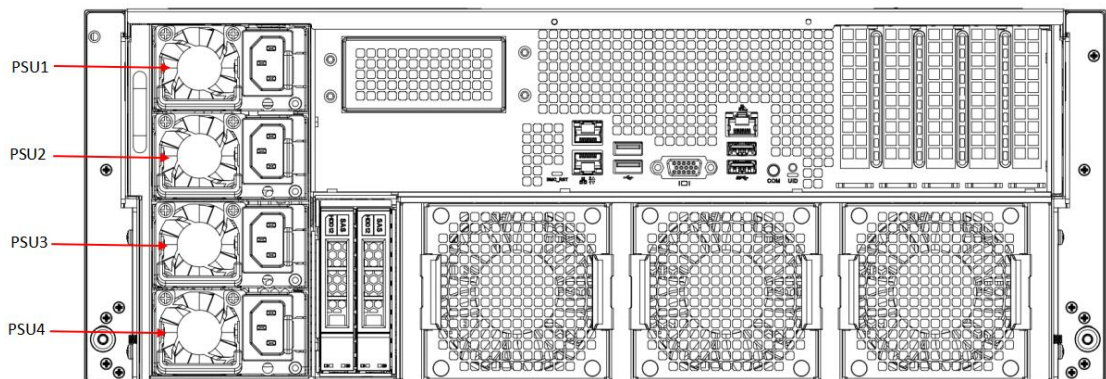
Figure 2-12

⚠ The device is equipped with 4 identical hot-swappable power modules, all of which need to be powered simultaneously for the product to function properly.

2.7 Fans

- Supports 11 fan modules.

- Supports hot-swappable.

- Supports variable fan speed.

- The fan module models installed in the same server must be identical.

2.8 I/O Expansion

2.8.1 PCIe slot location
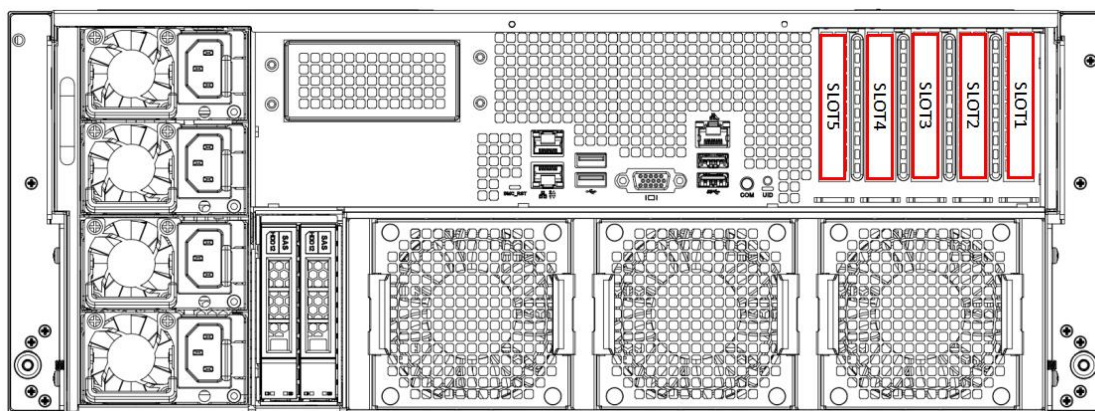
Figure 2-13

2.8.2 PCIe slot description

When CPU1 is not in place, its corresponding PCIe slot is unavailable.

| PCIe slot	Associated CPU	PCIe standard	Bus bandwidth	Slot size
Slot 1	CPU0	PCIe 5.0	X16	half height half length
Slot 2	CPU0	PCIe 5.0	X16	half height half length
Slot 3	CPU1	PCIe 5.0	X8	half height half length
Slot 4	CPU1	PCIe 5.0	X8	half height half length
Slot 5	CPU0	PCIe 5.0	X16	half height half length

Note:
◆PCIe slots with a bus bandwidth of PCIe x16 are backward compatible with PCIe x8, PCIe x4, and PCIe x1 cards. However, they are not upward compatible, meaning that the bandwidth of the PCIe slot cannot be smaller than the bandwidth of the inserted PCIe card.
◆The slot size of a full-height full-length PCIe slot is backward compatible with full-height half-length and half-height half-length PCIe cards. The slot size of a full-height half-length PCIe slot is backward compatible with half-height half-length PCIe cards.
◆The power capacity of all slots can support PCIe cards with a maximum power of

75W. The power consumption of the PCIe card depends on the model of the card.

<div align="center">Table 2-12</div>

2.9 PCBA

2.9.1 Motherboard
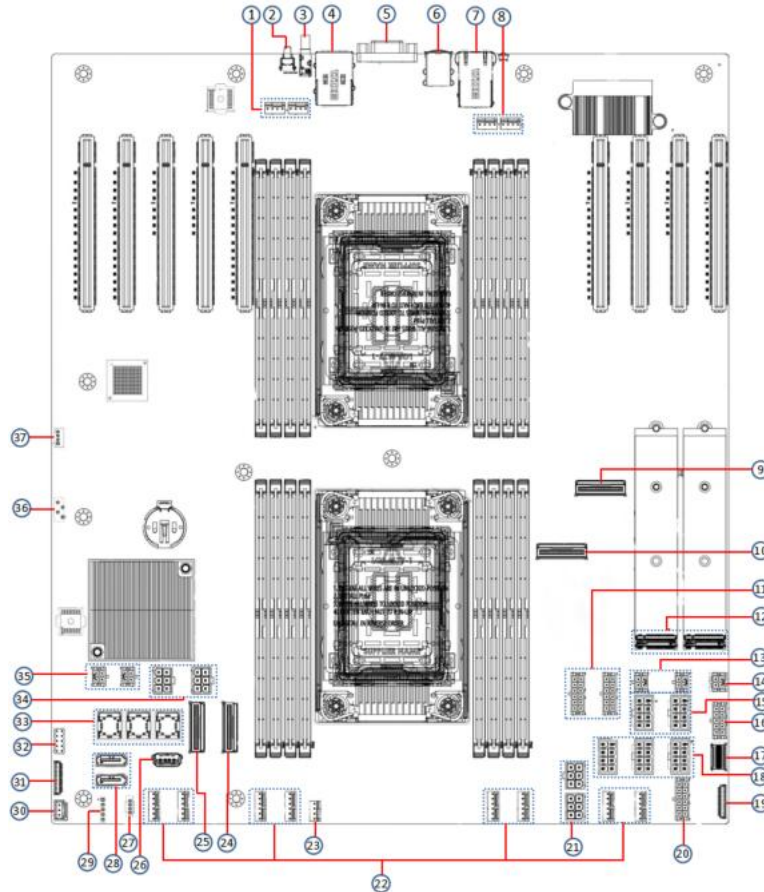
<div align="center">Motherboard Figure 2-14</div>

No.	Name
1、8	System fan 4-pin connector
2	UID button
3	COM port
4	BMC_LAN/USB3.0
5	Rear VGA
6	Rear USB2.0
7	RJ45 Gigabit network port
9	CPU1 PCIE5.0 Port0(lane8~15) X8 MCIO connector
10	CPU1 PCIE5.0 Port0(lane0~7) X8 MCIO connector
11	12Pin hard drive backplane power connector
12	PCIE CPU0 M.2 connector

13	4Pin rear backplane power connector
14	NIC power connector
15	8Pin power board connector
16	Motherboard and power communication control connector
17	Front USB 3.0 connector
18	8-pin power board connector
19	Front VGA connector
20	12-pin hard drive backplane power connector
21	Riser power connector
22	System fan 6-pin connector
23	System fan 4-pin connector
24	CPU0 PCIE5.0 Port3(lane0~7) X8 MCIO connector
25	CPU0 PCIE5.0 Port3(lane8~15) X8 MCIO connector
26	Internal USB 2.0 connector
27	RAID KEY connector
28	SATA Port 1/2 connector
29	SGP IO
30	CHASSIS INTRUSION connector
31	Front switch lug connector
32	TPM connector
33	Hard drive Mini SAS connector
34	Riser power connector
35	4Pin rear backplane power connector
36	IPMB
37	Rear hard drive backplane I2C connector

Table 2-13

2.9.2 Hard drive backplane

- 4×3.5 rear hard drive backplane (SAS/SATA)
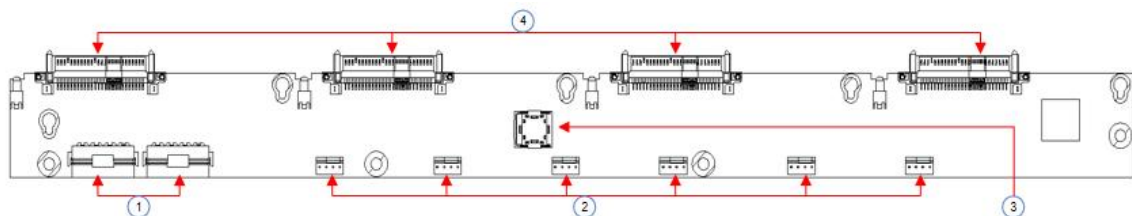

Figure 2-15

No.	Description	Function
1	BP power interface	Backplane power transmission connector, used for 12V and 5V power transmission
2	Temperature-controlled fan	For 4pin fan interface

	socket	
3	SFF-8643 12Gb SAS interface	For 12G/b SAS or 6G/b SATA signal transmission
4	SAS/SATA hard drive connector	Support 12Gb/s SAS hard drive; 6Gb/s SATA hard drive;

Table 2-14

- 2×2.5 rear SAS/SATA hard drive backplane

TOP surface
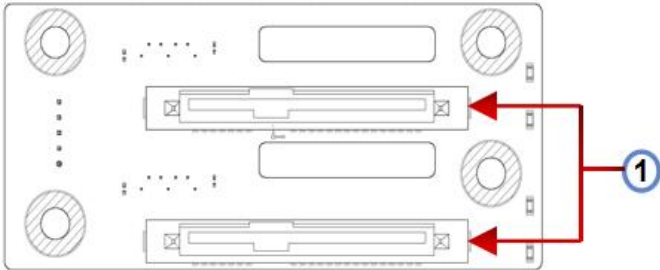
Figure 2-16

No.	Description	Function
1	SAS/SATA 硬盘连接器	Support 12Gb/s SAS hard drive; 6Gb/s SATA hard drive;

Table 2-15

Bottom surface
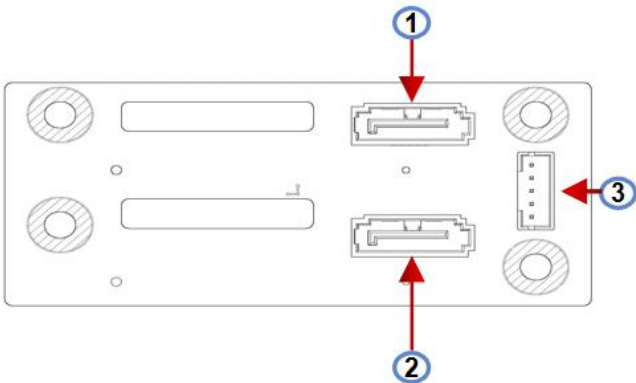
Figure 2-17

No.	Description	Function
1、2	7PIN SATA interface	SATA disk signal cable interface
3	5pin interface	Backplane power transmission connector, used for 12V power transmission

表 2-16

- 2x2.5 rear NVMe hard drive backplane

TOP surface
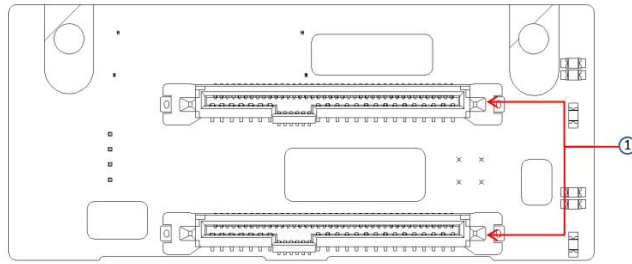
Figure 2-18

No.	Description	Function
1	SFF-8639 U.2 hard drive connector	Supports PCIe x4 U.2 interface, used for connecting NVMe SSD

Table 2-17

Bottom surface
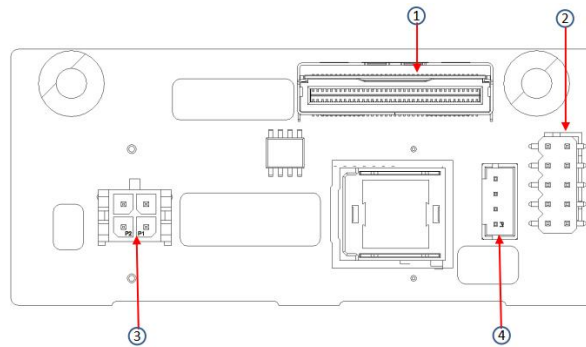
Figure 2-18

No.	Description	Function
1	MCIO Connector	Provides PCIe x8 interface for connecting CPU and NVMe SSD
2	JTAG Debugging Interface	Used for CPLD programming and version upgrades
3	4-pin Power Socket	Used for connecting PSU 4-pin plug to power the board
4	I2C Interface	Used for I2C signal interface

Table 2-18

3. Installation Instructions

3.1 Chassis Top Cover Installation

- Step 1: Lift the card slot at the opening position, and push it toward the rear of the chassis.
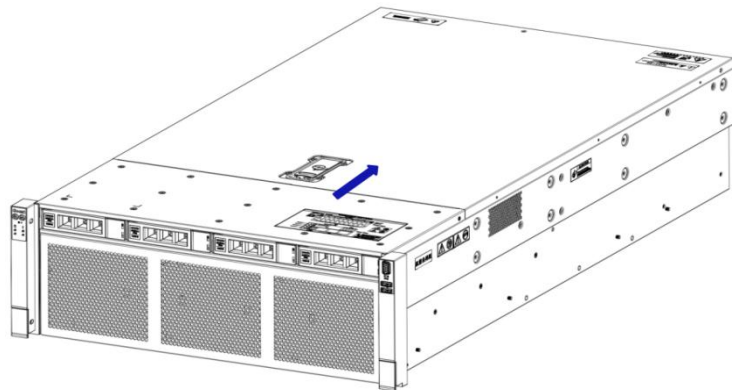
Figure 3-1

3.2 Installation of Accessories

3.2.1 CPU installation

- Step 1: Install the retention bracket and tilt the CPU at the angle shown in the diagram. Align corner A1 (indicated by a triangle mark) and place it on one end of the retention bracket. Press down on the other end of the retention bracket to secure the CPU onto the bracket.
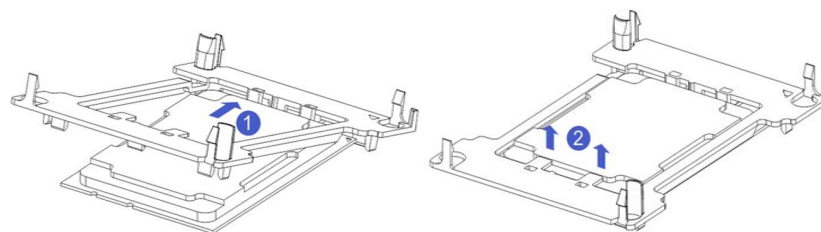
Figure 3-2

- Step 2: Install the CPU onto the heatsink, ensuring that both the CPU and heatsink surfaces are clean and free from oil or debris. Apply approximately 0.4ml of heat-conducting silicone grease to the CPU surface and spread it evenly.

- Step 3: Align corner A1 (indicated by a triangle mark) and buckle the CPU onto the heatsink. (As shown in the diagram below)
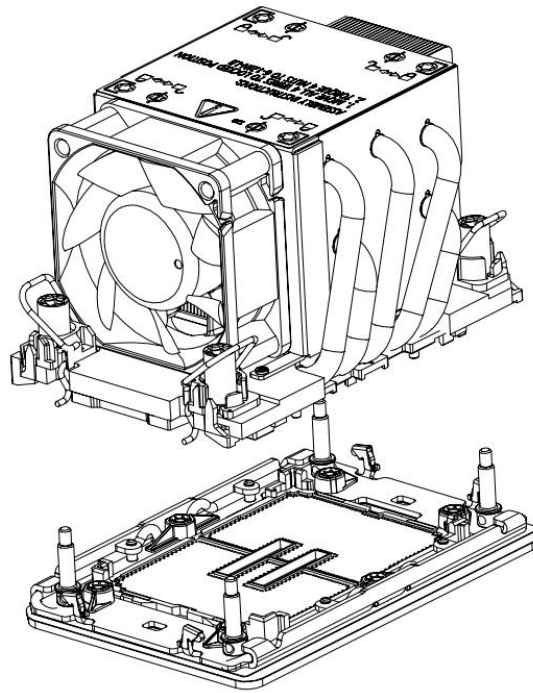
Figure 3-3

3.2.2 Heatsink installation

- Step 1: Remove the processor baffle (as shown in the figure below).
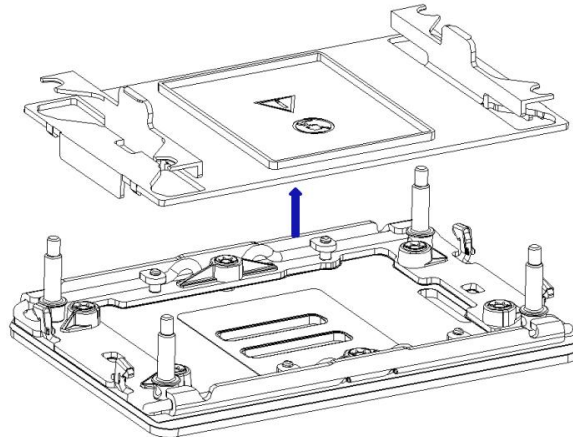
Figure 3-4

- Step 2: Align the heatsink with the mounting screws on the CPU socket bracket, and then tighten the heatsink's fixing screws in the indicated sequence (As shown below).
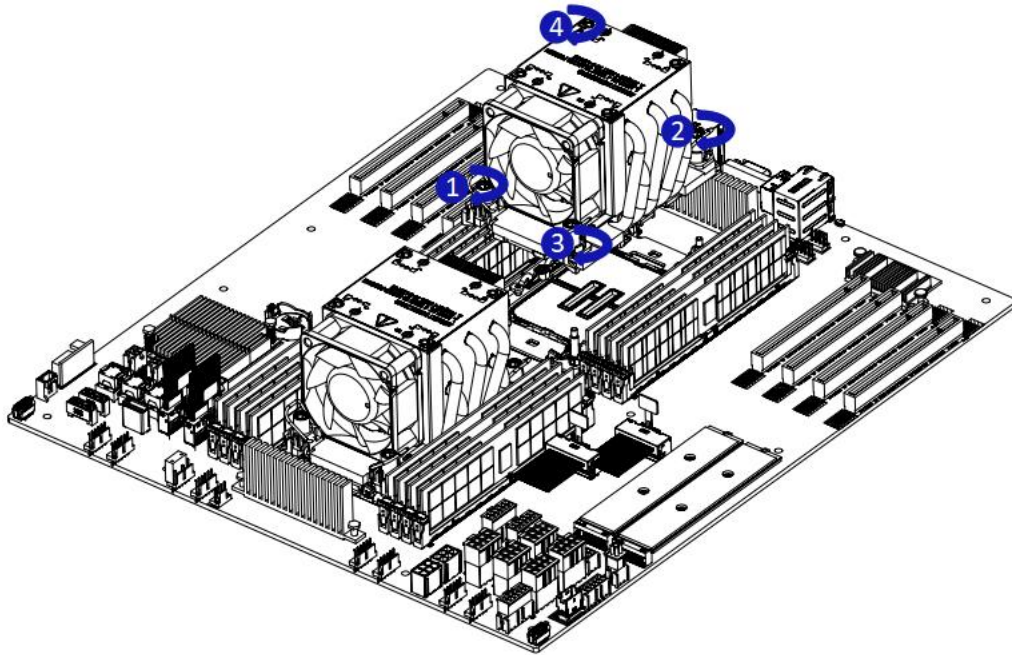
Figure 3-5

⚠️ CAUTION: The pins on the motherboard are very delicate and prone to damage. To avoid damaging the motherboard, please do not touch the processor or the processor socket contacts.

3.2.3 GPU installation

● Step 1: Take out the screws on the left and right sides of the front hard drive module.

左右两侧
螺钉去掉
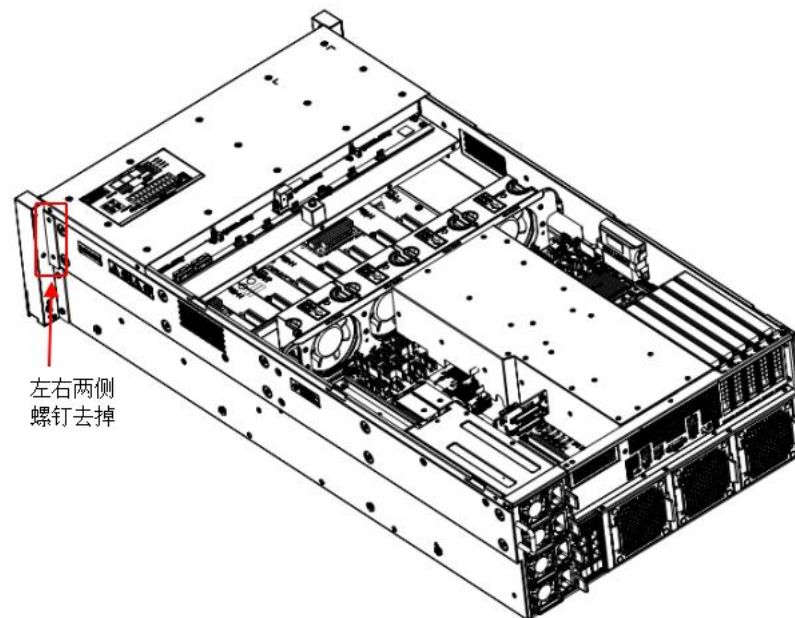
Figure 3-6

● Step 2: Take out the front hard drive module.

硬盘模组
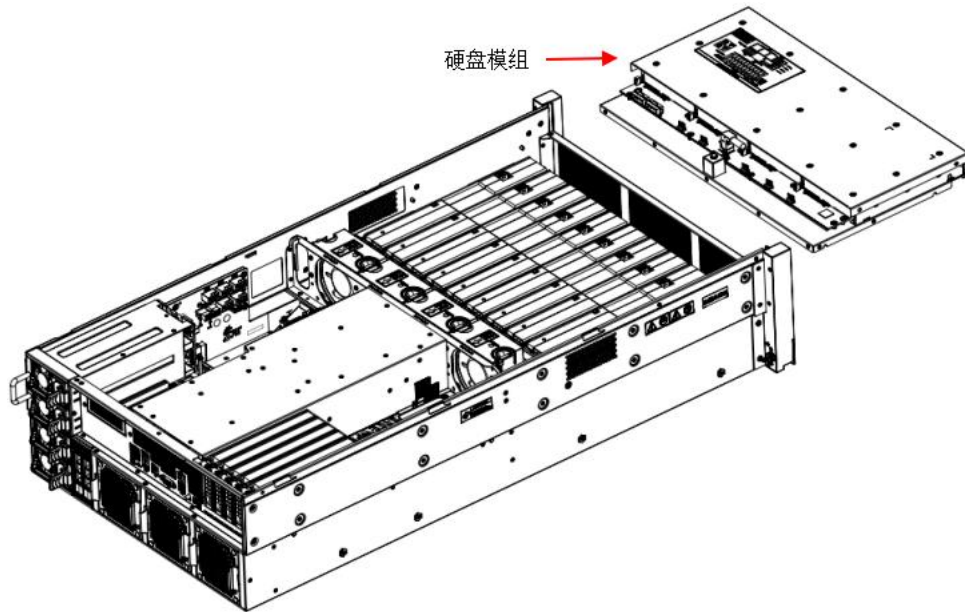
Figure 3-7

- Step 3: Take out the GPU bracket and install the GPU card.

取掉螺丝，
安装GPU卡
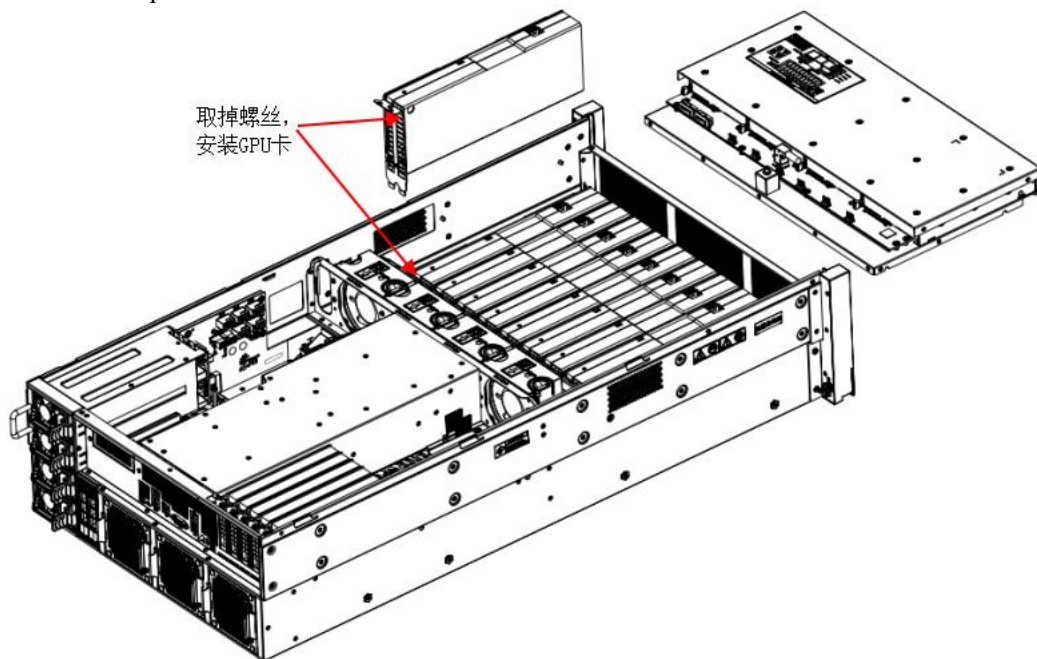
Figure 3-8

After installing the GPU, reverse the installation process of the front hard drive module according to the image provided earlier.

3.2.4 Memory installation

The 8 memory slots controlled by CPU0 on the motherboard are as follows: DIMM_A1、DIMM_B1，DIMM_C1、DIMM_D1、DIMM_E1、DIMM_F1，DIMM_G1、DIMM_H1.

The 8 memory slots controlled by CPU1 on the motherboard are as follows: DIMM_A1、DIMM_B1，DIMM_C1、DIMM_D1、DIMM_E1、DIMM_F1，DIMM_G1、DIMM_H1.

It's important to ensure that the notch on the memory module matches the notch on the DIMM slot. Insert each DIMM module vertically into place to prevent incorrect installation.
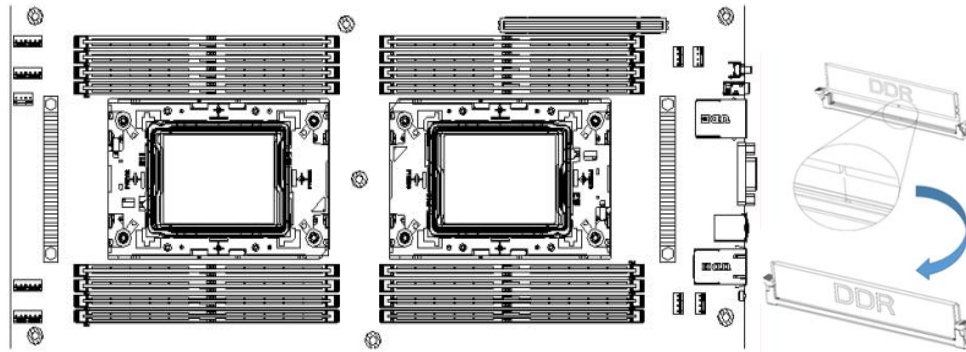
Figure 3-9
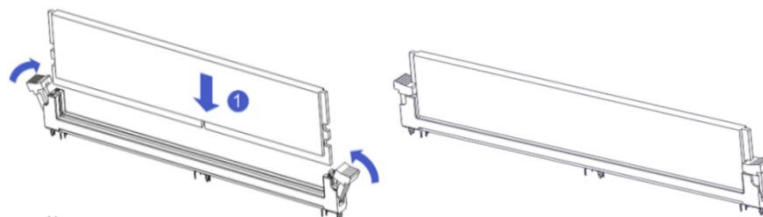
Figure 3-10

⚠ Note:

Use memory modules with identical CAS latency values on this motherboard. We recommend using memory modules of the same capacity, frequency, and from the same manufacturer.

⚠ Note:

In the same channel, memory modules with larger capacities must be installed in the first slot.

3.2.5 M.2 installation

● Step 1: Install locating screw A according to the length of the M.2 card to be installed.

● Step 2: Install the M.2 card.

Insert the connector end of the M.2 card into the motherboard connector, as shown in the following diagram:
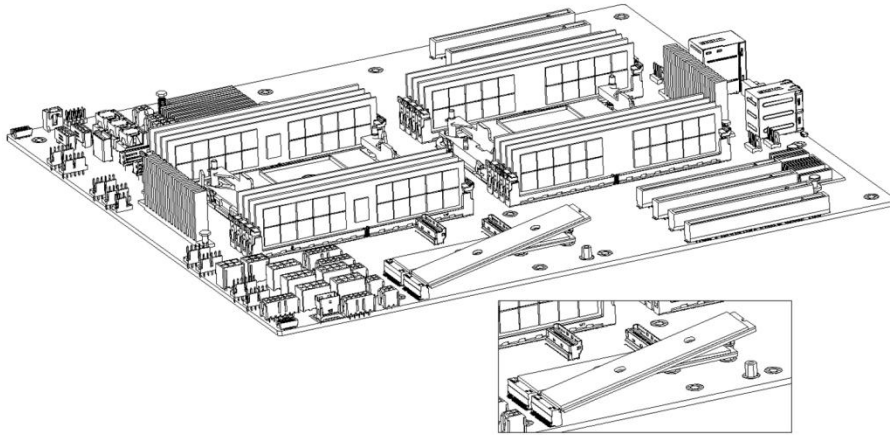
Figure 3-11

3.2.6 Server slide rail installation

- Step 1: Prepare two slide rails and pull out the inner rail.
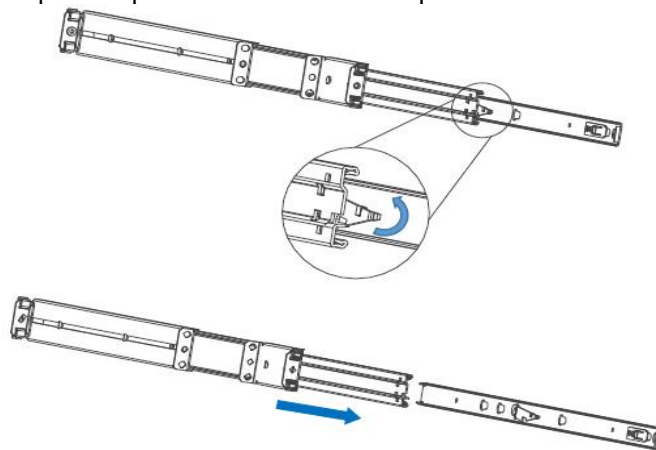
Figure 3-12

- Step 2: Fasten the inner rails to the sides of the chassis.
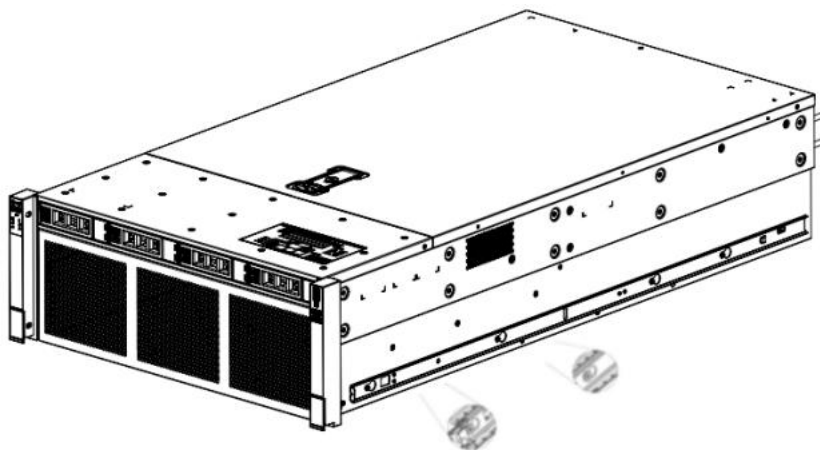
Figure 3-13

- Step 3: Install the outer rails on the cabinet brackets and secure the screws.
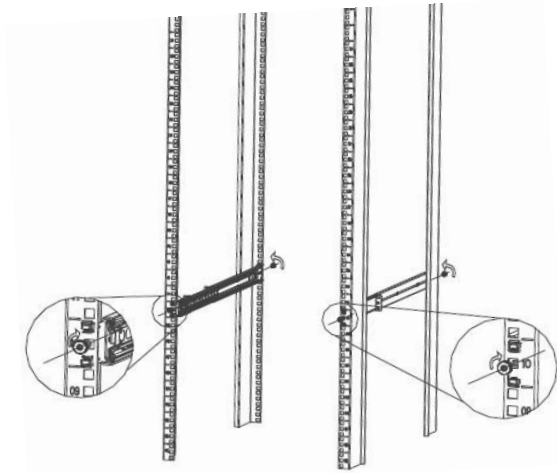
Figure 3-14

⚠ 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.
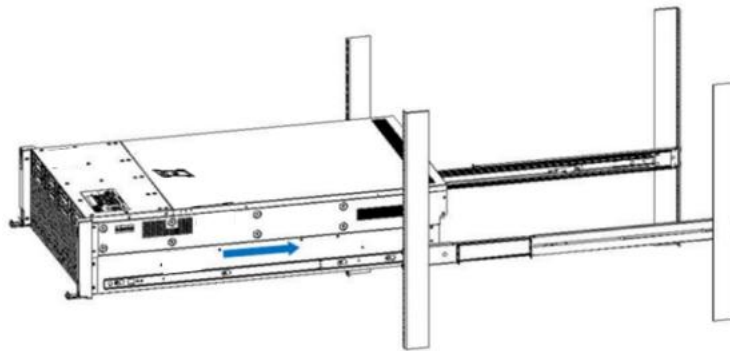
Figure 3-15

⚠ 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.
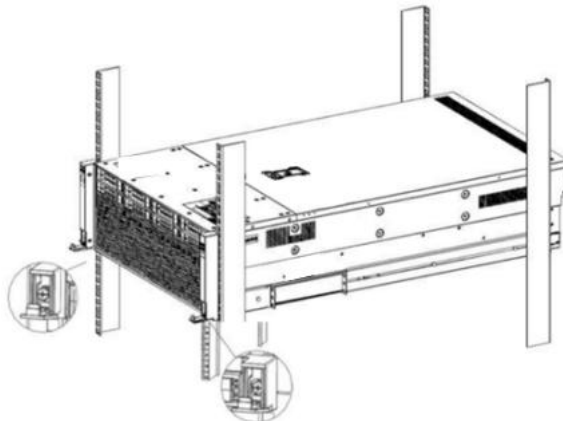
Figure 3-16

⚠ 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

4.1.1 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:
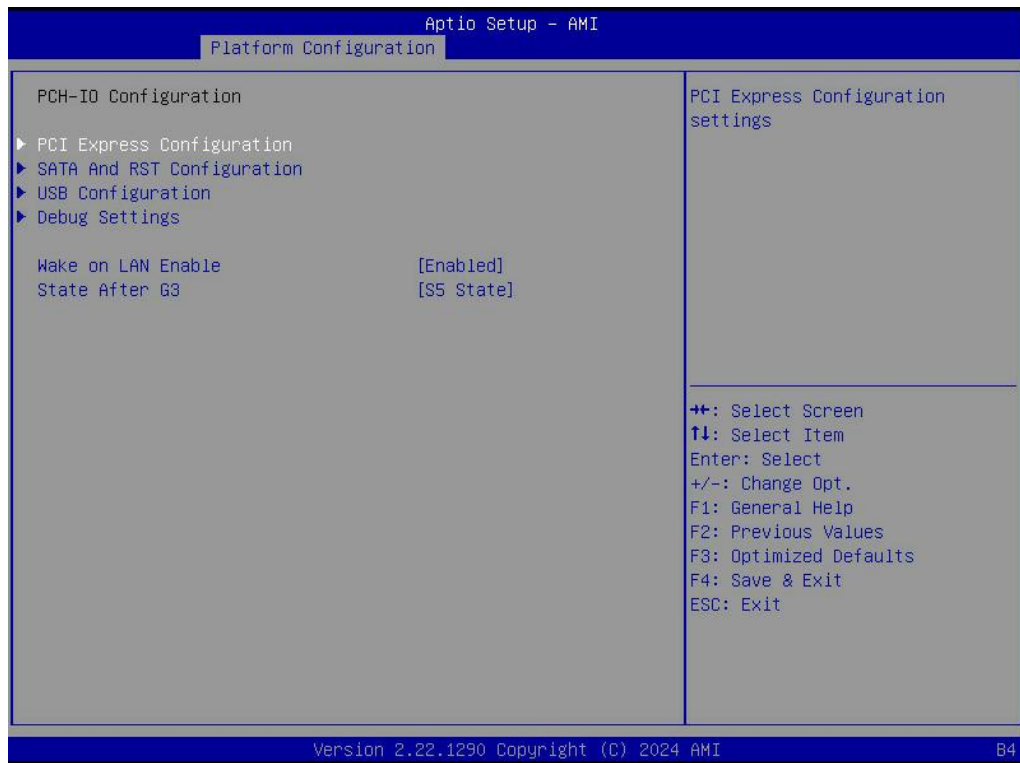
Figure 4-1

- State After G3

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

  S0: Power on and start up directly

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

  leave power state unchanged: Leave the power state unchanged .

  Default: S5 State

- Log in to the iBMC management interface to perform remote power-on and power-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.

Figure 4-2

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

4.1.2 Initial data

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

⚠ Be mindful of password security and remember to update your login credentials!

4.1.3 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:
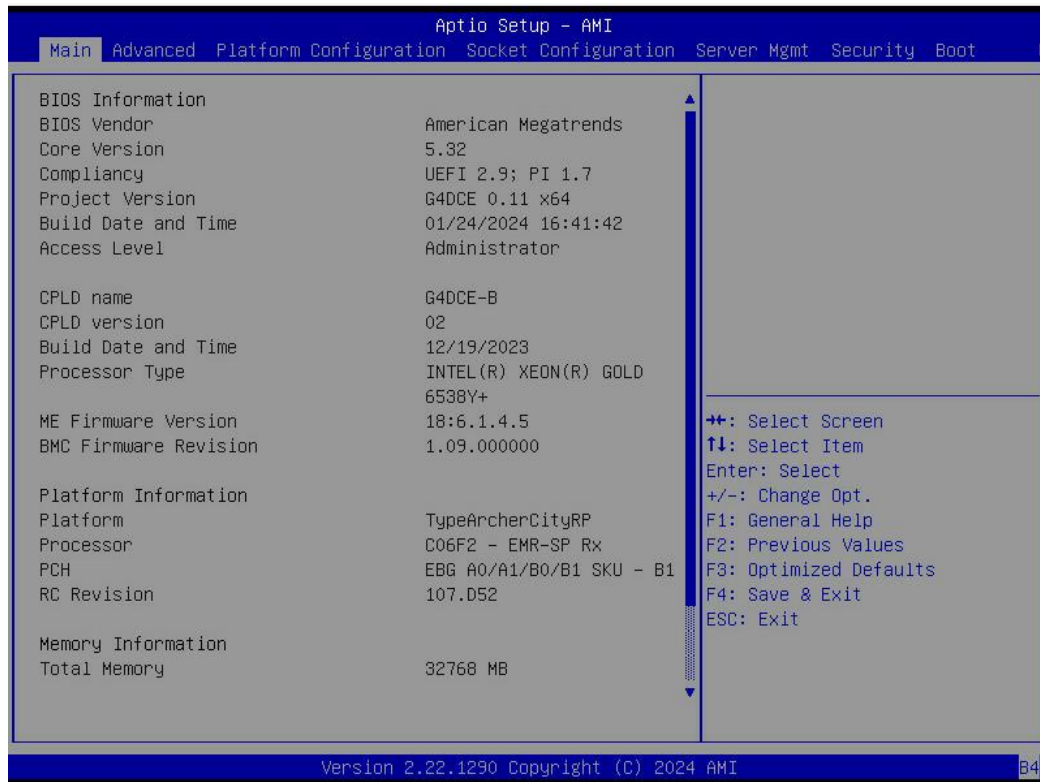
Figure 4-3

The Main interface contains the basic information of the BIOS system, such as the BIOS version number, CPU model, memory capacity, and the system time can be set. 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

4.1.4 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:

```
                                Aptio Setup - AMI
                                                    Server Mgmt

  --BMC network configuration--               ▲ Select to configure LAN
  ***********************                        channel parameters statically
  Configure IPv4 support                         or dynamically(by BIOS or
  ***********************                        BMC). Unspecified option will
                                                 not modify any BMC network
  Lan channel 1                                  parameters during BIOS phase
  Configuration Address source    [Unspecified]
  Current Configuration Address   DynamicAddressBmcDhcp
  source
  Station IP address              193.168.29.53
  Subnet mask                     255.255.252.0
  Station MAC address             EE-11-29-19-26-B7
  Router IP address               193.168.28.1
  Router MAC address              F4-6D-2F-41-D8-DE
                                                 ↔: Select Screen
  ***********************                        ↑↓: Select Item
  Configure IPv6 support                         Enter: Select
  ***********************                        +/-: Change Opt.
                                                 F1: General Help
  Lan channel 1                                  F2: Previous Values
                                                 F3: Optimized Defaults
  IPv6 Support                    [Enabled]      F4: Save & Exit
                                                 ESC: Exit
  Configuration Address source    [Unspecified]
                                               ▼

                    Version 2.22.1290 Copyright (C) 2023 AMI
```
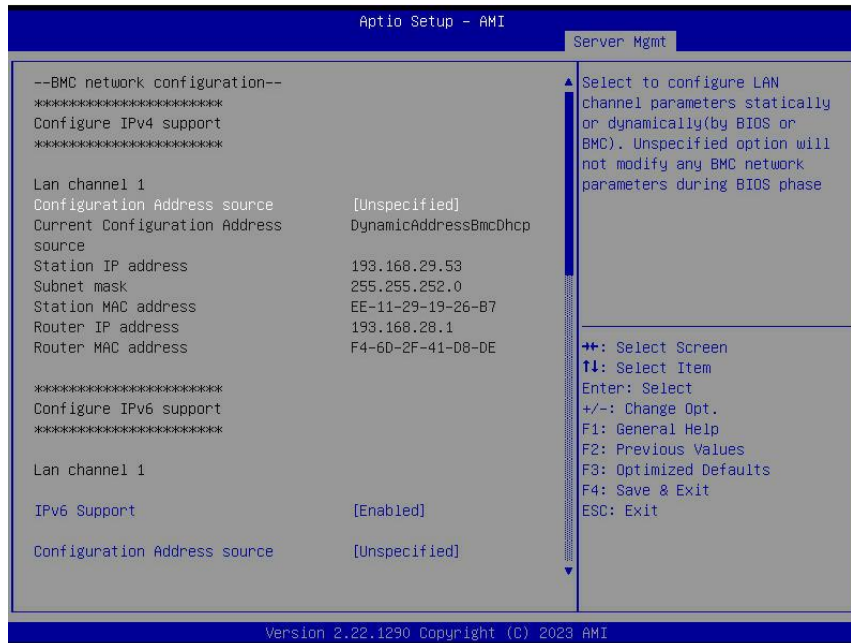
Figure 4-4

Configure IPV4 support :

- BMC sharelink Management Channel

- 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

● BMC Sharelink Management Channel

● 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.

● BMC Dedicated Management Channel

- 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

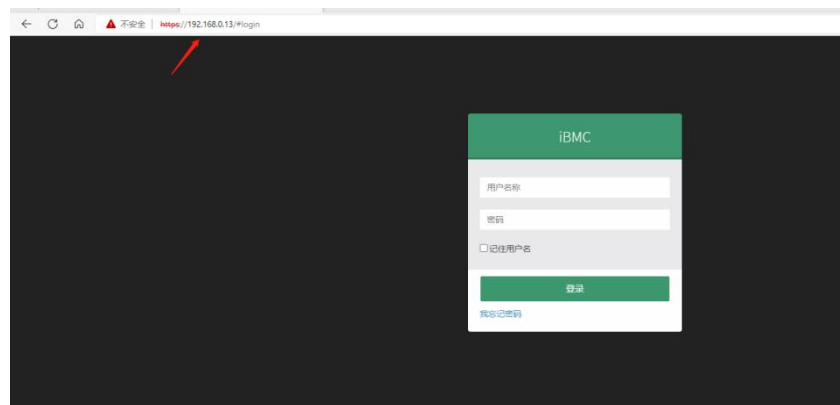Enter the IP address on the web page, as shown in the figure:

Figure 4-5

Enter the account password to enter the home page, and you can set the BMC IP address on the management interface.

On the left side of the interface, switch to "Settings Page" -> "Network Settings" -> "Network IP Settings". As shown below:
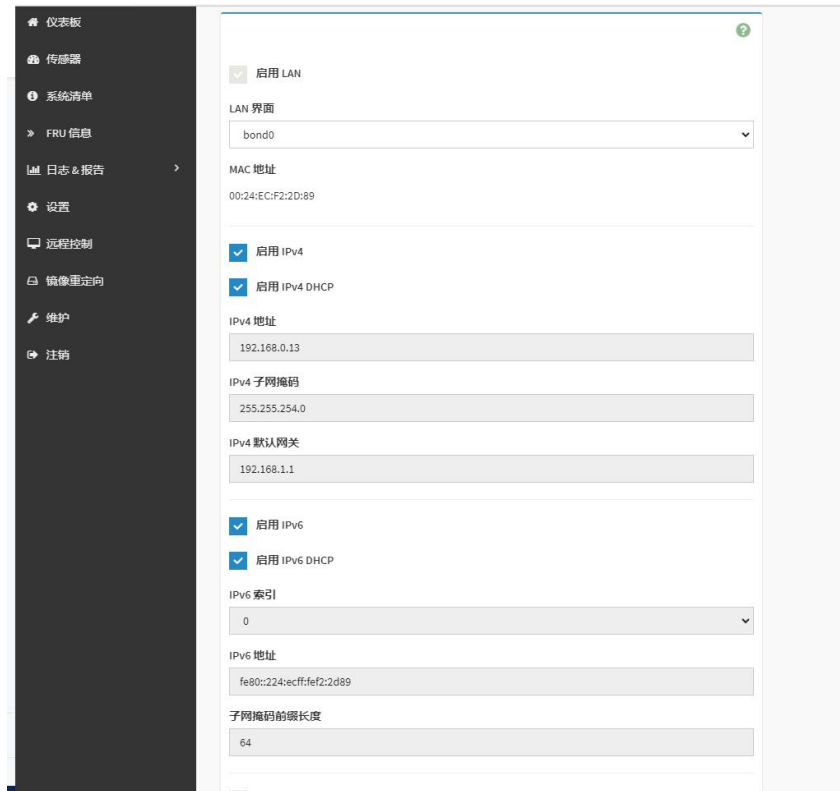
Figure 4-6

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.