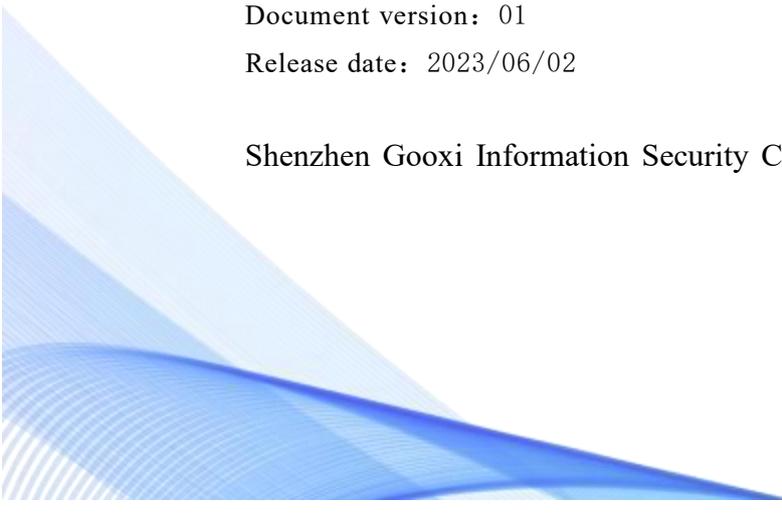


**ASR4110G-D04R-G2**  
**/ASR4110G-D10R-G2 4U**  
**Rackmount Server User Manual**

Document version: 01

Release date: 2023/06/02

Shenzhen Gooxi Information Security Co., Ltd.



# Statement

## **Copyright Statement**

© Shenzhen Gooxi Information Security Co., Ltd. All rights reserved.

This user manual, including but not limited to all information contained herein, is protected by copyright law. Without the permission of Shenzhen Gooxi Information Security Co., Ltd. (hereinafter referred to as "Gooxi"), no one may engage in any behavior such as imitation, copying, excerpting, forwarding, or other forms of utilization.

## **Disclaimer**

Gooxi provides this user manual "as is" and to the extent permitted by law, makes no express or implied warranties or guarantees, including but not limited to merchantability, fitness for a particular purpose, non-infringement of any rights of others, and any warranties or guarantees regarding the use or inability to use this user manual. Gooxi also does not provide any warranties or guarantees regarding the accuracy or reliability of any information obtained using this user manual.

Due to product version upgrades or other reasons, the content of this user manual may be periodically updated. Unless otherwise specified, this user manual is provided solely as a usage guide, and users shall bear all risks associated with the use of this user manual.

## **Trademark Statement**

Gooxi® is a trademark of Shenzhen Gooxi Information Security Co., Ltd.

Microsoft® and Windows is a trademark of the Microsoft group of companies.

Linux® is a registered trademark of Linus Torvalds.

Aspeed® is a trademark of ASPEED Technology Inc.

Ownership of other trademarks belongs to their respective owners.

# Foreword

This manual is the product technical manual for the Gooxi ASR4110G-D04R-G2/ASR4110G-D10R-G2 servers. It primarily provides an introduction and explanation of the product's appearance, structure, hardware installation, and basic configuration.

Please note that this manual is intended for reference and research purposes for professional technical personnel. The installation and maintenance of this product should only be performed by experienced technical personnel.

# Modification Record

Manual version	Release date	Modification instructions
V0.1	2023-06-02	First release

## Contents

Statement.....	1
Foreword.....	2
<b>1. Product Introduction</b> .....	<b>4</b>
1.1 Product overview.....	4
1.2 Product structure.....	4
1.3 Logical structure.....	5
1.4 Product Specifications.....	6
<b>2. Hardware Description</b> .....	<b>7</b>
2.1 Front panel.....	7
2.1.1 Appearance.....	7
2.1.2 Indicator lights and buttons.....	7
2.1.3 Interface.....	9
2.2 Rear panel.....	10
2.2.1 Appearance.....	10
2.2.2 Indicator lights and buttons.....	11
2.2.3 Interface.....	12
2.3 Processor.....	12
2.4 Memory.....	12
2.4.1 Memory slot location.....	12
2.4.2 Memory Compatibility Information.....	13
2.5 Storage.....	13
2.5.1 Hard drive configuration.....	13
2.5.2 Hard drive distribution.....	14
2.5.3 Hard drive Status Indicator.....	15
2.6 Power Supply.....	16
2.7 Fan.....	16
2.8 I/O Expansion.....	16
2.8.1 PCIe slot location.....	16
2.8.2 PCIe slot description.....	17
2.9 PCBA.....	18
2.9.1 Motherboard.....	18
2.9.2 Hard drive backplane.....	20
<b>3. Installation Instructions</b> .....	<b>21</b>
3.1 Installation of Accessories.....	21
3.1.1 Installation of CPU.....	21
3.1.2 Installation of heatsink.....	23
3.1.3 Installation of GPU.....	23
3.1.4 Installation of memory.....	24
3.1.5 Installation of server slide rail.....	24
<b>4. Configuration Instructions</b> .....	<b>26</b>
4.1 Initial Configuration.....	26
4.1.1 Power on the system.....	26
4.1.2 Initial data.....	27
4.1.3 Configuration of BIOS.....	27
4.1.4 Configuration of BMC.....	27
Appendix.....	31

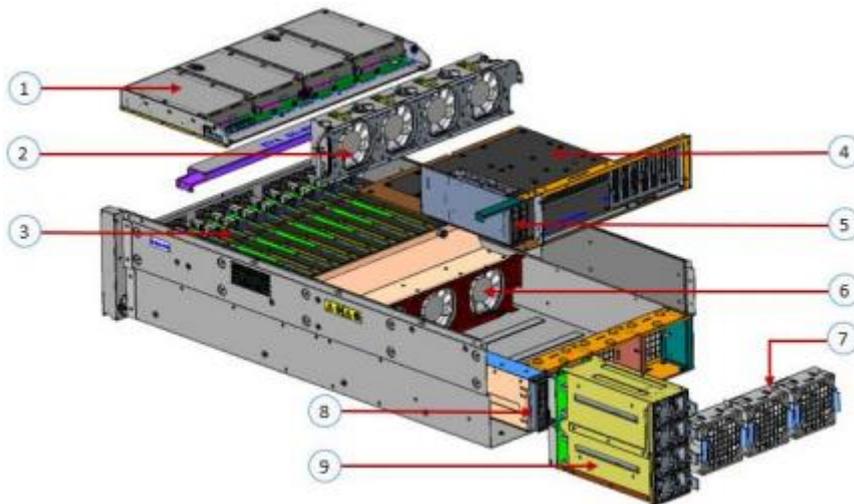
# 1. Product Introduction

## 1.1 Product overview

Gooxi AMD dual-socket 4U10-GPU server adopts Gooxi G2DERO-B motherboard, supports 2 high-performance AMD EPYC 7003/7002/7001 series processors, 16 DDR4 memory slots, supporting 10 double-width full-height full-length GPU card. It demonstrates extraordinary capabilities in terms of computing performance, storage expansion, and stability, making it highly suitable for development and applications in emerging fields such as artificial intelligence. It is applicable in various scenarios, including big data analysis, 3D graphics applications, video decoding, deep learning, scientific computing, and more.

## 1.2 Product structure

ASR4110G-D04R-G2 physical structure of the rear view is shown in the figure below:



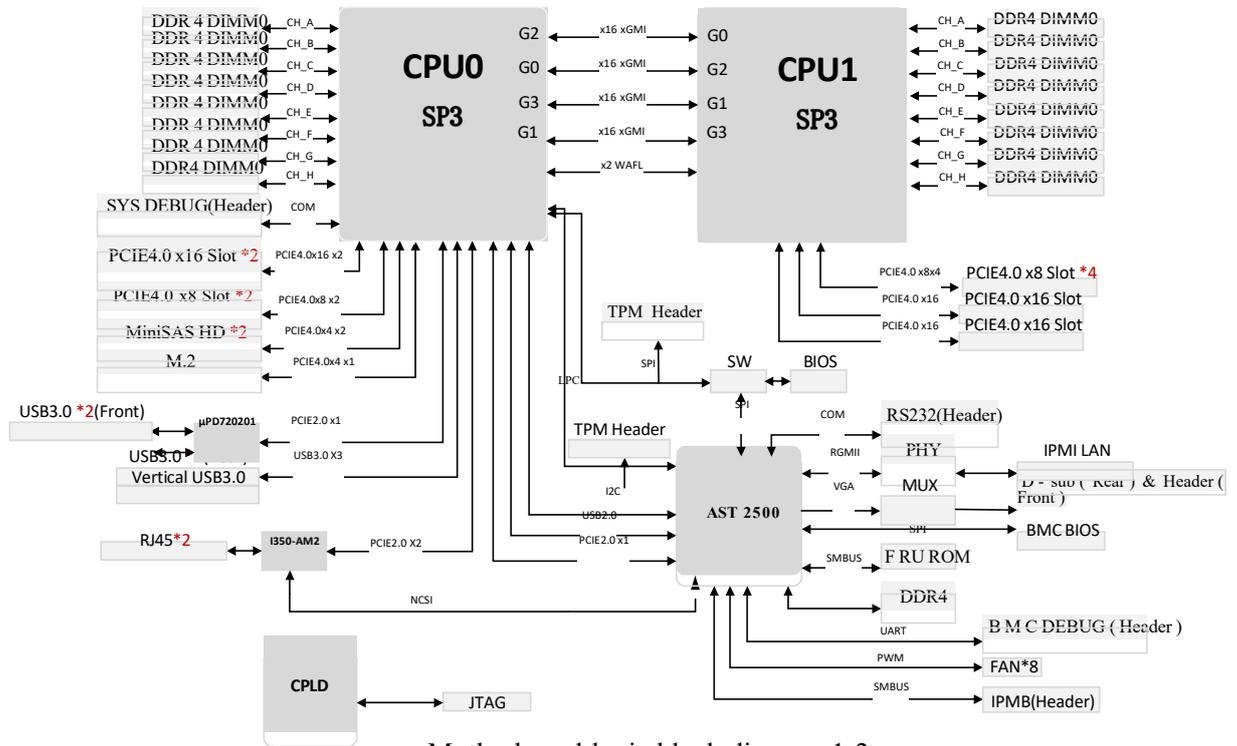
Structure Diagram 1-1

No.	Name	No.	Name
1	Front 3.5- inch hard drive module	6	Middle bottom 8038 fan module
2	Middle upper 8038 fan module	7	Rear 8038 fan module
3	10*GPU card double width & single width slot	8	Lower 2.5-inch hard drive module
4	motherboard tray	9	Power module
5	Rear 2.5- inch hard drive module		

Table 1-1

### 1.3 Logical structure

G2DERO-B motherboard is shown in the figure below:



Motherboard logic block diagram 1-2

The motherboard features are as follows:

- Support 2 AMD EPYC 7003/7002/7001 series processors\*;
- Single CPU supports 8 DDR4 channels, each channel supports 1 DIMM, and supports a total of 16 DDR4 slots; supports a single capacity of 16 GB, 32 GB, 64 GB, 128 GB, 256 GB, and the maximum memory capacity of the whole machine is 4 TB;
- DDR4 type: DDR4 2133/2400/2666/2933 MHz ECC-RDIMM/LRDIMM/3DS LRDIMM;
- There are 10 groups of PCIe slots on the motherboard, among which: support 6 PCIe x8 (x16 slot, slot 1/3/4/5/8/9) and 4 PCIe x 16 (slot 2/6/7/10), slot 3 is designed as x8 or no signal, slot 4 is designed as x8 or x16 (that is, the motherboard can support 4 PCIe x 8+5 PCIe x16);
- The motherboard provides 1 M.2 Key M SSD slot, only supports 2280 size and PCIe X4 signal;
- Two Gigabit Ethernet ports are integrated on the motherboard, using I350-AM2 chip;
- The BMC chip in this board adopts the AST2500 control chip of ASPEED Company, which is used for IPMI remote management, VGA output port, dedicated Gigabit RJ45 management network port.

## 1.4 Product Specifications

Product Line	ASR4110G-D04R-G2	ASR4110G-D10R-G2
Product Type	4U10-GPU 4-bay rackmount server	4U10-GPU 10-bay rackmount server
System Size	790mm*433mm*176.5mm (D*W*H)	
Processor*	Support 2 AMD EPYC 7003/7002/7001 series processors	
Memory	Support 16pcs DDR4 ECC RDIMM/LRDIMM memory, memory frequency support 2133/2400/2666/2933MHz, support a single maximum capacity of 256GB, and a maximum total memory capacity of 4TB.	
Internal Storage Interface	1 M.2 interface, 2 MiniSAS HD interfaces	
Front HDD*	Support four 3.5/2.5 inch SAS/SATA hard drives	Support ten 2.5-inch SAS/SATA hard drives
Rear HDD*	Standard two 2.5-inch SAS/SATA hard drive bays (expandable to four), optional 2 or 4 U.2 hard drive expansion slots at the rear.	
External Ports & Buttons	Front: 2 USB 2.0, 1 power button, 1 reset button, 1 hard drive indicator, 1 system Fault lights, 2 network lights.	
	Rear: 1 VGA, 2 USB3.0, 1 management network port, 2 RJ45 Gigabit network ports, 1 COM port.	
PCIe Expansion	Front: supports 10* full-height PCIe double-width slots; Rear: supports 10* half-height PCIe single-width slots.	
Safety	Support TPM module	
Power Supply	1200W, 1300W, 1600W, 2000W, 2200W 3+1 redundant power supply (select the power module according to the actual power consumption of the whole machine)	
System Fan	The center is equipped with eight 8038 hot-swappable fans; the rear is equipped with three 8038 hot-swappable fans.	
IPMI Compatibility	IPMI 2.0 _	
Management Port	1 dedicated RJ45management network port	
RoHS	Compliant with RoHS 2.0.	
Working Temperature and Humidity	Temperature 5°C~35°C/humidity 20%~80% RH non-condensing	
Storage Temperature and Humidity	Short-term storage ( $\leq 72$ H): temperature -40°C~70°C/humidity 20%~90% RH non-condensing (including packaging)	
	Long-term storage ( $> 72$ H): temperature 20°C~28°C/humidity 30%~70% RH non-condensing (including packaging)	

Table 1-3

Note:

\* Support AMD EPYC 7003/7002/7001 series CPU, require different firmware.

\* The number and type of hard drives are subject to the actual configuration.

## 2. Hardware Description

### 2.1 Front panel

#### 2.1.1 Appearance

- 4 x 3.5 inch hard drive configuration

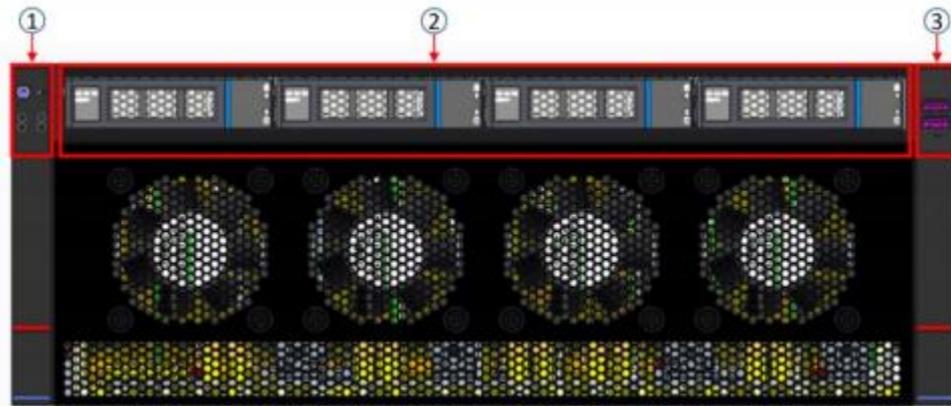


Figure 2-1

No.	Name	No.	Name
1	switch panel	3	USB 2.0 interface
2	3.5 inch hard drive	.	.

table 2-1

#### 2.1.2 Indicator lights and buttons

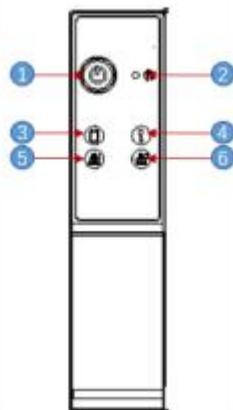


Figure 2-2

No.	Indicator light /button	No.	Indicator light /button
1	Power switch button/indicator	4	System Alarm Indicator
2	Restart button	5	Network port 1 connection status indicator
3	Hard drive indicator	6	Network port 2 connection status indicator
LED status description			
logo	Indicator light /button	status description	
	power indicator	<p>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.</p> <p>Power button description:                      Press the button briefly in the power-on state to turn off the OS normally.                      Press and hold the button for 6 seconds in the power-on state to force the server to Power off.                      Short pressing this button while the system is in standby mode will power on the device.</p>	
	Restart button	Press to restart the server	
	Hard drive indicator	Blinking green light: The hard drive is operating normally	
	System warning indicator	System warning indicator. Including system alarms, fan alarms, power supply alarms, etc., which can be viewed through the IPMI management software.	
	Network port connection status indicator	<p>The Ethernet port indicator lights correspond to the network card slots.                      Green (steady on): indicates that the network port is connected normally.                      Off: indicates that the network port is not in use or faulty.                      Note: associated with the two 1GE ports on the motherboard.</p>	
	Network port connection status indicator	<p>The Ethernet port indicator lights correspond to the network card slots.                      Green (steady on): indicates that the network port is connected normally.                      Off: indicates that the network port is not in use or faulty.                      Note: associated with the two 1GE ports on the motherboard.</p>	

Table 2-2

### 2.1.3 Interface

- Interface location

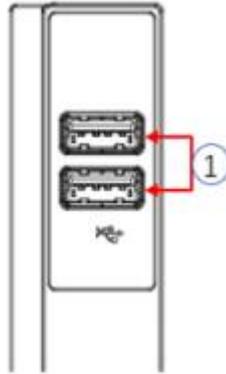


Figure 2-3

No.	Name
1	USB interface

Table 2-3

● Interface Description

Name	Type	Quantity	Description
USB interface	USB 2.0	2	For accessing USB devices

Table 2-4

## 2.2 Rear panel

### 2.2.1 Appearance

● Appearance of the rear panel

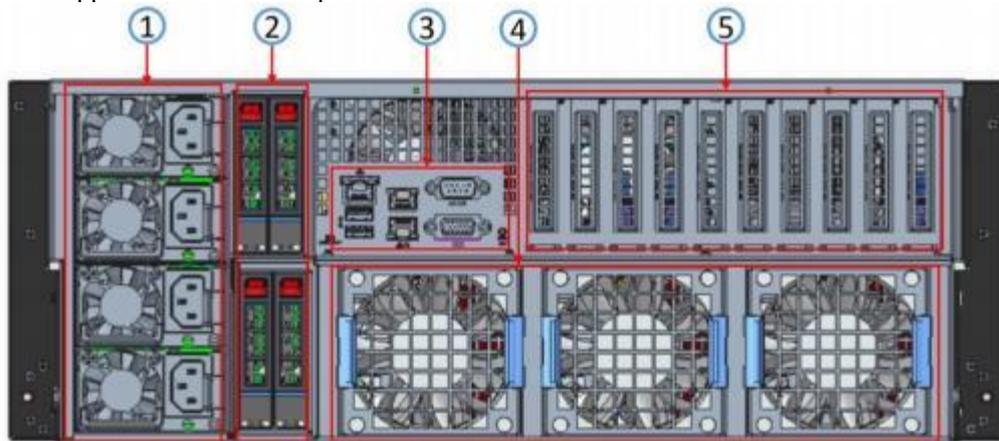


Figure 2-4

No.	Name	No.	Name
1	power module	4	8038 Fan module
2	2.5-inch hard drive module	5	expansion slot
3	I/O panel	.	.

Table 2-5

2.2.2 Indicator lights and buttons

● Rear Panel Indicators

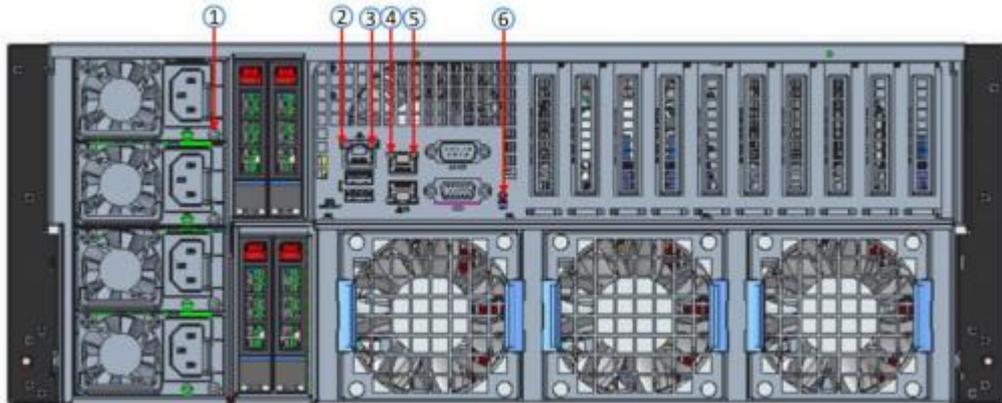


Figure 2-5

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

Table 2-6

● Description of Power Module Indicator

Indicator light/button	status description
Power module indicator	<p>Green (steady on): Indicates that the input and output are normal.</p> <p>Orange (steady on): Indicates that the AC power cord is unplugged or the power module is missing, and only one power module in parallel has AC input; power module malfunction causing output shutdown, such as OVP, OCP, fan failure.</p> <p>Green (1 Hz /flashing): Indicates that the input is normal, the voltage is too low (less than 12 V) or the power supply is in the smart open state.</p> <p>Green (2 Hz /flashing): Indicates that the Firmware is being upgraded online.</p> <p>Orange (1 Hz /flashing): Power supply warning event indicating continuous power supply operation, high temperature, high power, high current.</p> <p>Off: Indicates no AC power input.</p>

Table 2-7

### 2.2.3 Interface

- rear panel interface

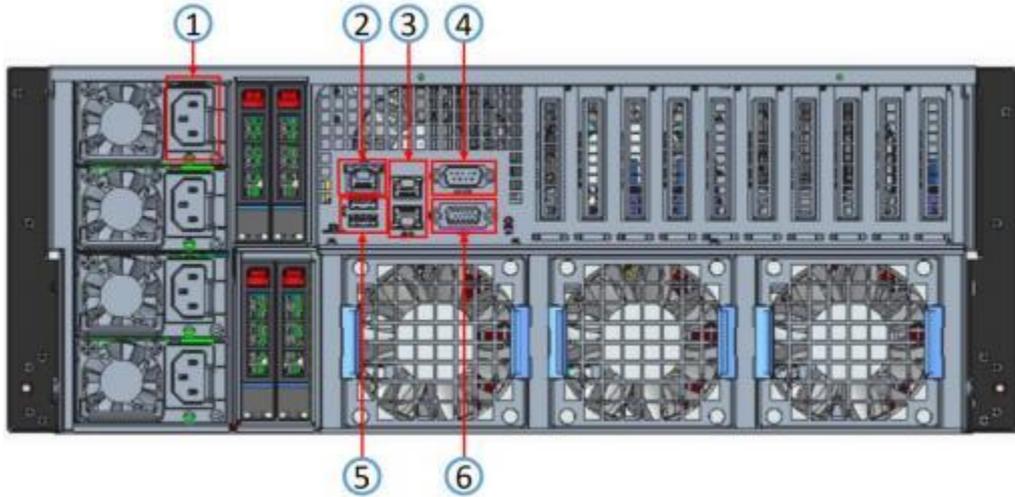


Figure 2-6

No.	Name	No.	Name
1	Power Module	4	COM interface
2	Management Network Port	5	USB 3.0 interface
3	Gigabit Network Port	6	VGA interface

Table 2-8

## 2.3 Processor

- Support 1 or 2 AMD EPYC 7003/7002/7001 series CPU
- When configuring 1 processor, it needs to be installed in CPU 0 position.
- The processors configured in the same server must have the same model.
- Please consult with Gooxi sales for specific system options available.

## 2.4 Memory

### 2.4.1 Memory slot location

Motherboard supports 2 AMD EPYC 7003/7002/7001 series processors, supports 8 DDR4 channels, 2 CPUs support a total of 16 channels DDR4 slot (when only one memory is inserted, it is preferred to insert the slot in the red box in the picture below), supports DDR4 RDIMM/LRDIMM server memory, memory frequency supports 2133/2400/2666/2933 MHz.

- memory slot location

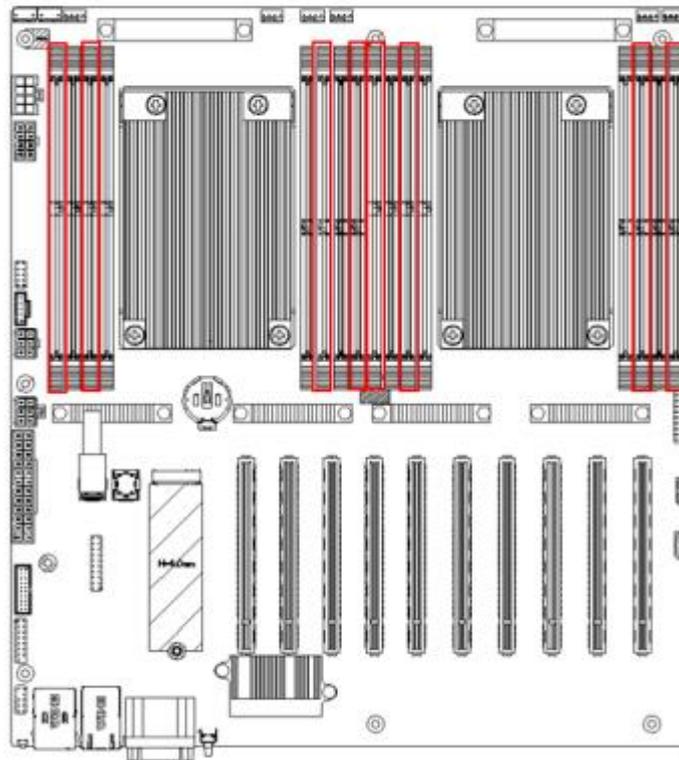


Figure 2-7

## 2.4.2 Memory Compatibility Information

Motherboard supports DDR4 RDIMM/LRDIMM Server memory, memory frequency supports 2133/2400/2666/2933 MHz.

Note:

- The same server must use the same model of DDR4 memory, and all memory must run at the same speed. Likewise, the velocity value is the lowest of the following:
  - The memory speed supported by a particular CPU.
  - Maximum operating speed for specific memory configurations.
  - Mixing of different types (RDIMM, LRDIMM) and specifications (capacity, bit width, rank, height, etc.) of DDR4 memory is not supported.

## 2.5 Storage

### 2.5.1 Hard drive configuration

Configuration	Maximum number of hard drives (pieces)	Description
4*SAS/ SATA hard drives in the front.	Support four 3.5-inch/2.5-inch SAS/ SATA hard drives	SAS hard drives require optional SAS pass-through card or RAID card for support.

2*SAS/SATA hard drives in the rear or 4*SAS/SATA hard drives (optional)	Support 2 or 4 2.5-inch SAS/SATA hard drives	SAS hard drives need to be paired with a SAS pass-through card or RAID card for support
2* NVMe hard drives (optional) or 4 *NVMe hard drives (optional) in the rear	Support 2 or 4*2.5-inch U.2 hard drives	U.2 hard drive needs to be equipped with a Retimer card for support
*Note: The rear only supports up to four 2.5-inch hard drives (SAS / SATA / NVMe)		

Table 2-9

### 2.5.2 Hard drive distribution

- 4 x 3.5-inch front hard drive configuration

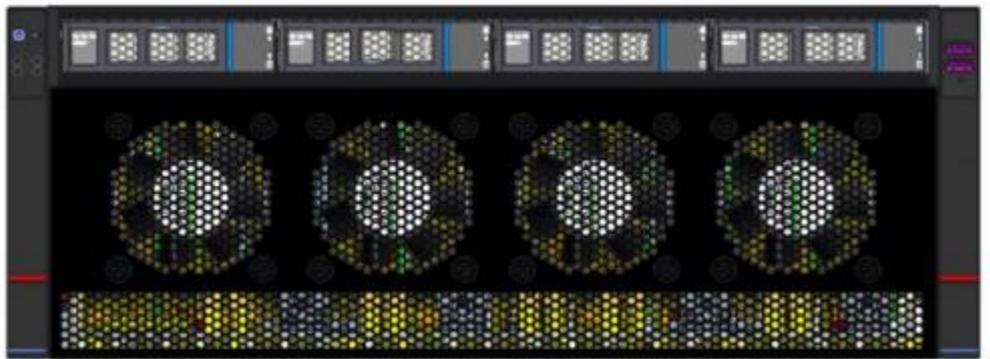


Figure 2-8

- 4 x 2.5-inch rear hard drive configuration



Figure 2-9

2.5.3 Hard drive Status Indicator

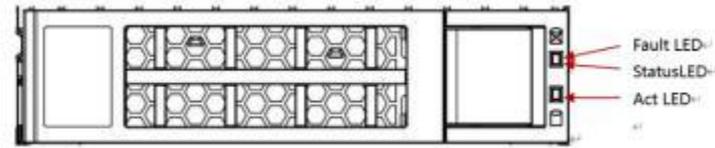


Figure 2-10

● Hard drive status indicator description

Function	Act LED	Status LED	Fault LED
Hard drive in position	always on	OFF	OFF
Hard drive activity	always on	OFF	OFF
Hard drive location	always on	Blinking 4Hz/second	OFF
Hard drive error	always on	OFF	always on
RAID rebuild	always on	OFF	Blinking 1Hz/second

Table 2-10

Note: The rear hard drive module indicator only supports the hard drive in position

## 2.6 Power Supply

- Support 2 or 4 power modules
- Support AC or DC power modules
- Support hot swap
- When configuring 4 power modules, it supports 1+1 or 3+1 redundancy
- When configuring power modules in the same server, the power module models must be the same
- For specific optional system components available for purchase, please consult Gooxi sales

## 2.7 Fan

- Support 11 fan modules
- Support hot swap
- Support single fan failure
- Support variable fan speed
- For fan modules configured in the same server, the fan module models must be the same

## 2.8 I/O Expansion

### 2.8.1 PCIe slot location

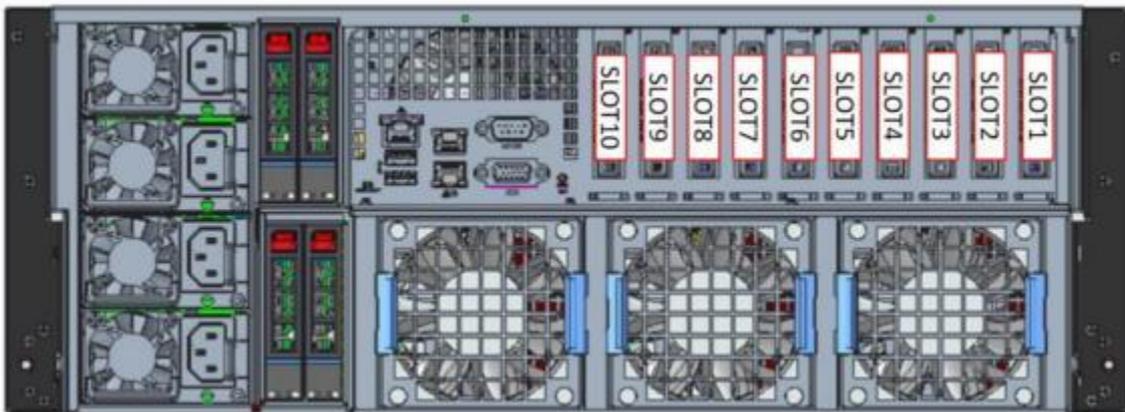


Figure 2-11

2. 8.2 PCIe slot description

When CPU1 is not present, its corresponding PCIe slot is unavailable.

PCIe slot	Secondary CPU	PCIe standard	Bus bandwidth	Slot size
Slot 1	CPU 1	PCIe 4.0	x8 _	half height half length
Slot 2	CPU 1	PCIe 4.0	X16	half height half length
Slot 3	CPU 1	PCIe 4.0	x8 or null	half height half length
Slot 4	CPU 1	PCIe 4.0	x8 or x16	half height half length
Slot 5	CPU 1	PCIe 4.0	X8	half height half length
Slot 6	CPU 0	PCIe 4.0	x16	half height half length
Slot 7	CPU 1	PCIe 4.0	x16	half height half length
Slot 8	CPU 0	PCIe 4.0	x8 _	half height half length
Slot 9	CPU 0	PCIe 4.0	x8 _	half height half length
Slot 10	CPU 0	PCIe 4.0	x16	half height half length

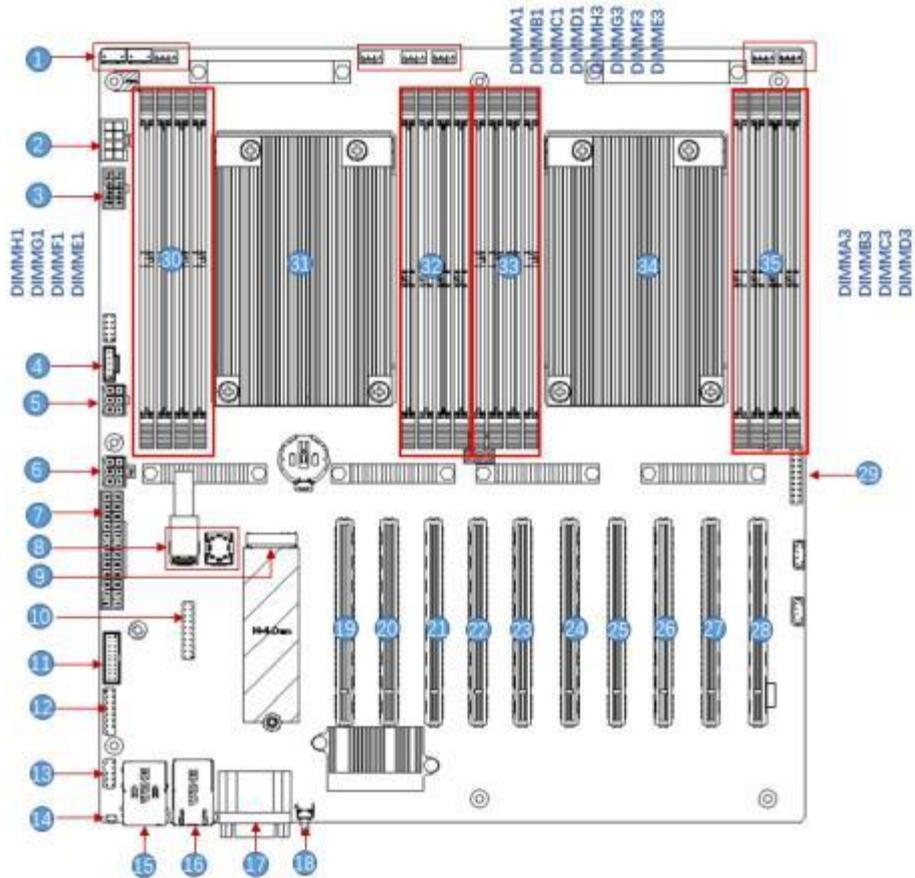
Note:

- ◆ A PCIe x16 slot with a bus bandwidth is backward compatible with PCIe x8, PCIe x4, and PCIe x1 PCIe cards. It is not compatible in the upward direction, meaning that the bus bandwidth of the PCIe slot cannot be smaller than the bandwidth of the inserted PCIe card.
- ◆ When slot 4 is set to x16, slot 3 has no signal.
- ◆ The power supply capacity of all slots can support PCIe cards up to 75W, and the power of PCIe cards depends on the PCIe model of the card.

Table 2-11

## 2.9 PCBA

### 2.9.1 Motherboard



Motherboard Figure 2-12

No.	Module Name
1	Chassis fan control 4 pin interface (8)
2	ATX 8PIN power connector
3	ATX 8PIN power connector
4	PMBUS
5	ATX 6PIN power connector
6	ATX 6PIN power connector
7	ATX 24PIN power connector
8	Mini SAS HD1/HD2 8643 connector
9	M.2 slot
10	LPC TPM/80Port 2x10PIN Header
11	FP USB3.0*2 Header
12	FP VGA Header
13	SPI TPM Header
14	BMC Button
15	USB 3.0*2+ IPMI LAN

16	RJ45 Gigabit network port
17	COM port and VGA
18	UID button
19	SLOT10 PCIE X16
20	SLOT 9 PCIE X8
21	SLOT 8 PCIE X8
22	SLOT7 PCIE X16
23	SLOT6 PCIE X16
24	SLOT5 PCIE X8
25	SLOT4 PCIE X8 or X16
26	SLOT3 PCIE X8 or null
27	SLOT2 PCIE X16
28	SLOT1 PCIE X8
29	Front panel pins
30	DDR4 memory slot
31	SP3 Socket
32	DDR4 memory slot
33	DDR4 memory slot
33	DDR4 memory slot
34	SP3 Socket
35	DDR4 memory slot

Table 2-12

2.9.2 Hard drive backplane

- 2×2.5 rear hard drive backplane (SAS/SATA)  
TOP surface

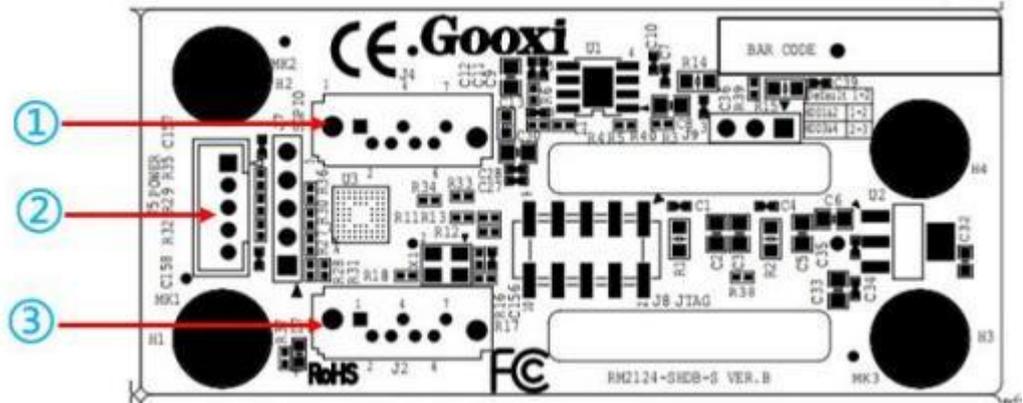


Figure 2-13

No.	Description	Function
1	7PIN SATA interface	SATA drive signal cable interface
2	power interface	Backplane power transmission connector, used for the transmission of 12 V power
3	7PIN SATA interface	SATA drive signal cable interface

Table 2-13

Bottom surface

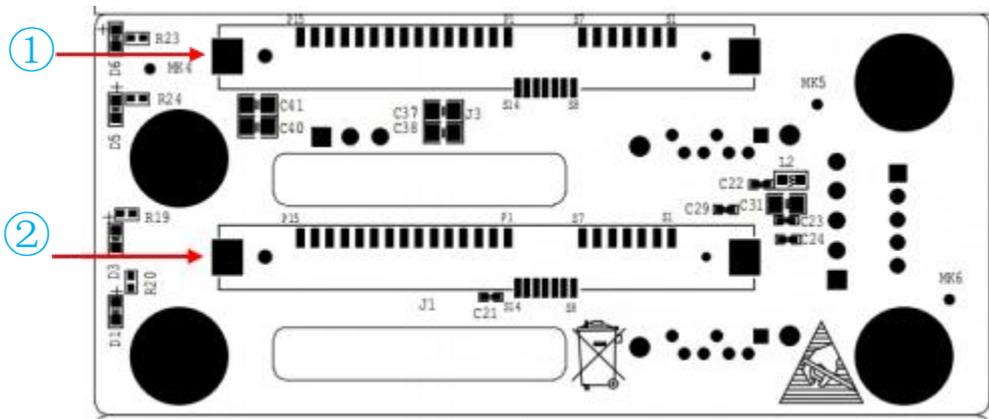


Figure 2-14

No.	Description	Function
1, 2	SAS/SATA hard drive connector	Support SAS/SATA hard drive, 6Gb/s

Table 2-14

## 3. Installation Instructions

### 3.1 Installation of Accessories

#### 3.1.1 Installation of CPU

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 fixing screws securing the CPU cover in sequence (3 → 2 → 1).
2. Flip open the CPU cover.
3. Use the handle on the CPU tray to remove the CPU tray from the CPU rack.
4. Using the handle on the CPU bracket, insert the new CPU bracket with the installed CPU into the CPU rack.

 Note: Ensure that the CPU is installed correctly in the CPU bracket, aligning the triangle on the CPU with the top-left corner of the CPU carrier.

5. Flip the CPU rack with the CPU installed to the appropriate position in the CPU slot.
6. Flip the CPU cover to the appropriate position above the CPU slot.
7. Tighten the CPU cover screws in the order (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, perform steps 1-7 in reverse order.

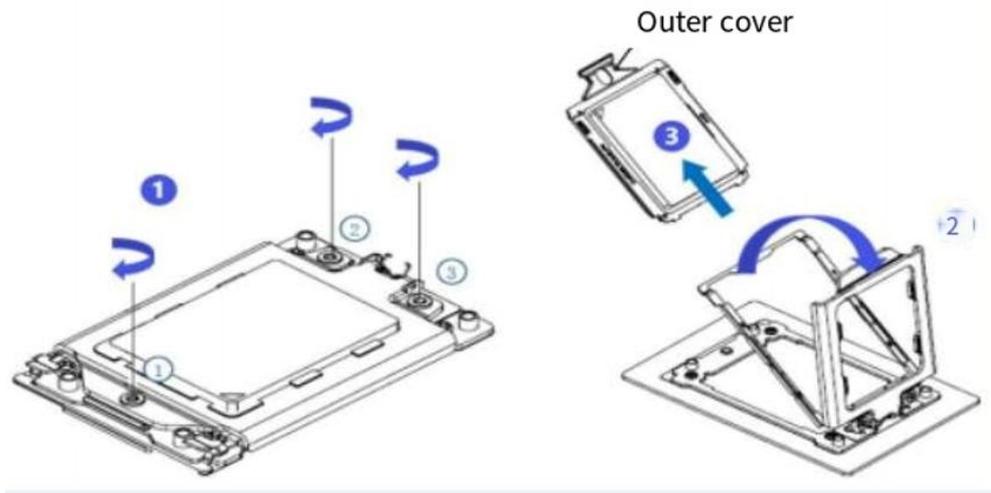


Figure 3-1

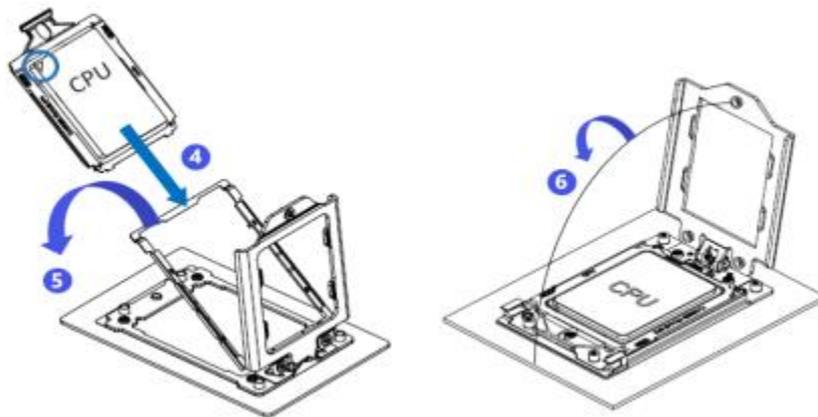


Figure 3-2

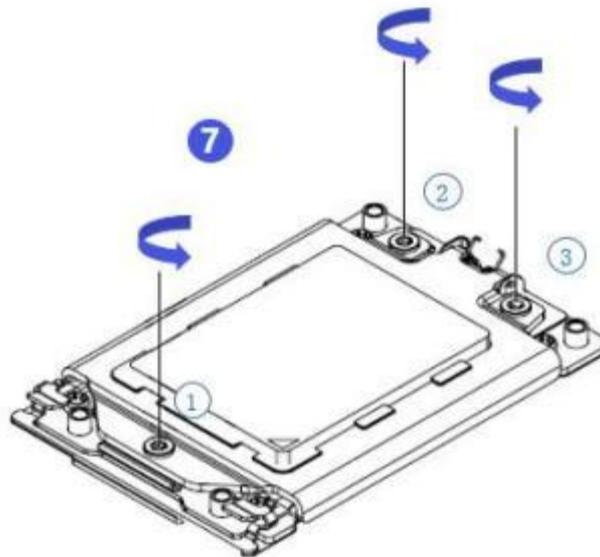


Figure 3-3

### 3.1.2 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 handling any components of the motherboard, please ensure that the power to the motherboard is disconnected. Failure to do so may result in severe damage.

 **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 disassemble and install the heatsink:**

1. Lift the heatsink and align it with the 4 studs on the CPU socket.
2. Tighten the radiator fixing screws in order (1→2→3→4) to fix them in place.
3. To disassemble the heatsink, perform steps 1-2 in reverse, while making sure to unscrew the fixing screws in sequence (1→2→3→4), as shown in the figure below.

(The image of the heatsink is for reference only. Please refer to the actual product.)

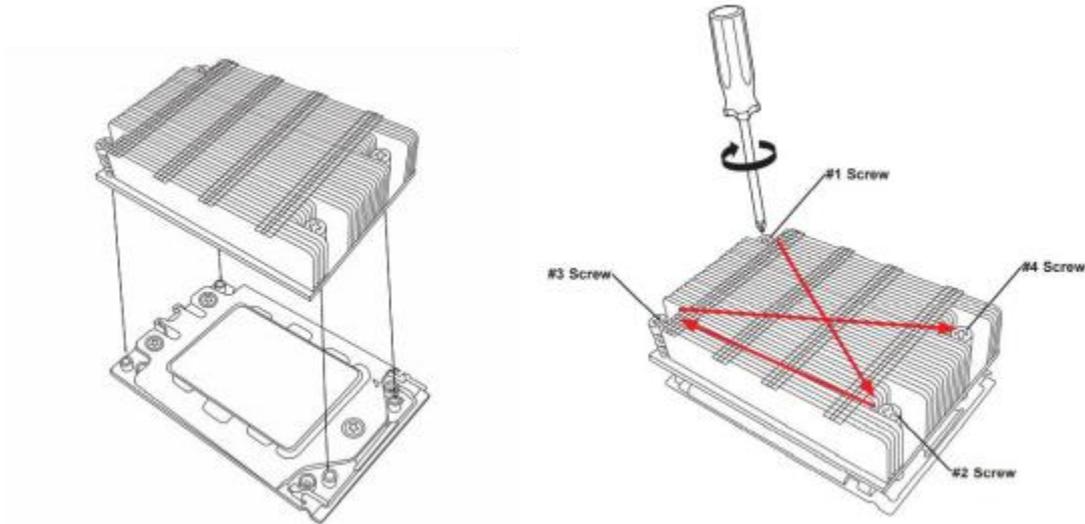


Figure 3-4

### 3.1.3 Installation of GPU

- Step 1: Take out the screws on the left and right sides of the front hard drive module.
- Step 2: Take out the front hard drive module.
- Step 3: Remove the GPU retention bracket and proceed to install the GPU card.

After installing the graphics card, you can proceed to reverse the installation of the front hard drive module following the image provided earlier.

### 3.1.4 Installation of memory

The motherboard supports 8 DDR4 channels, each channel supports 1 DIMM, and 2 CPUs support a total of 16 DDR4 slots (When only one memory is inserted, it is preferred to insert the slot in the red frame in the figure below).

Note that the notch of the memory is consistent with the notch of the DIMM slot. Insert each DIMM module vertically into place to prevent incorrect installation.

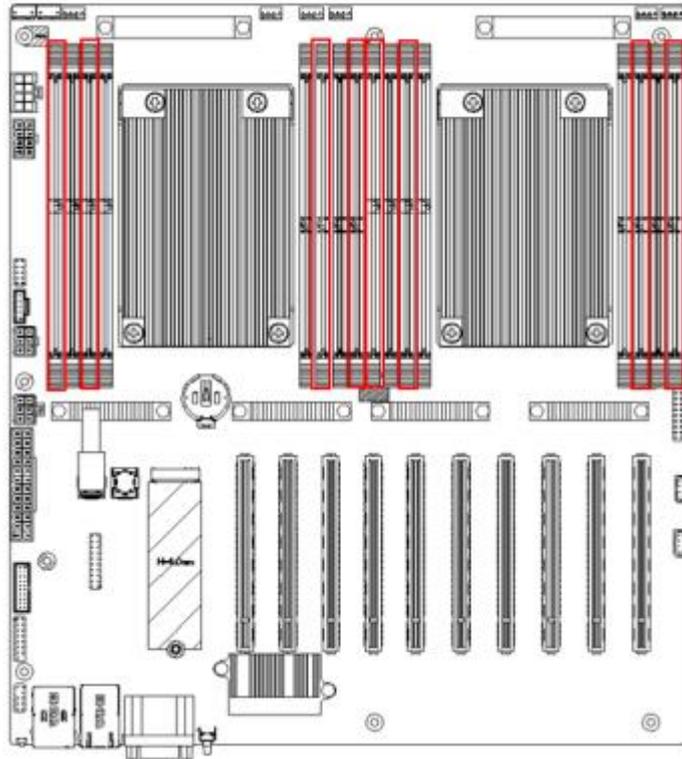


Figure 3-6

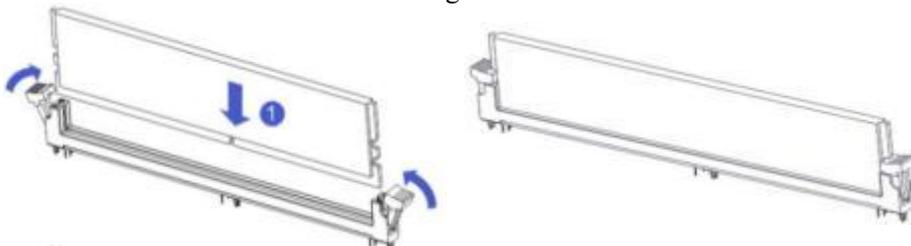


Figure 3-7

### 3.1.5 Installation of server slide rail

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

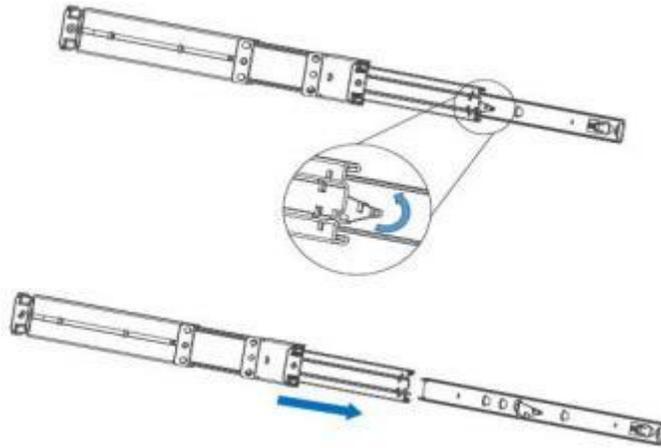


Figure 3-7

- Step 2: Fix the inner rails on both sides of the chassis.
- Step 3: Install the outer rail on the cabinet bracket and secure the screws.

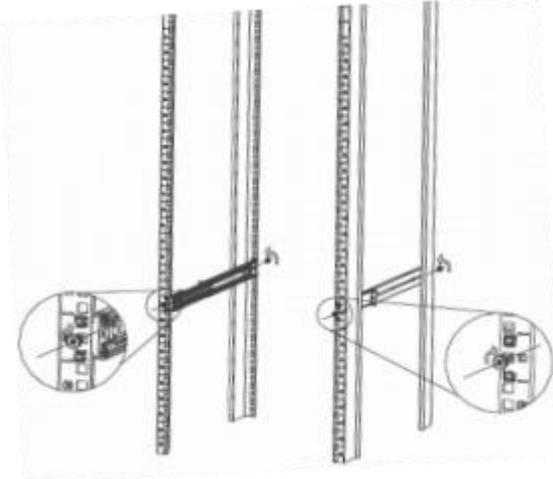


Figure 3-8

⚠ Note: When installing the guide rail, you need to align with the U mark. When you hear a snap, install it in place, and use M5 screws to fix it. solid.

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

⚠ Note: When pushing the chassis forward, if you hear a clicking sound and cannot continue pushing, you need to downwardly press the inner rail latch to unlock it and then continue gently pushing the chassis.

- Step 5: Once the chassis cannot slide forward, make sure that the screws are securely tightened to complete the installation.

⚠ Note: During device maintenance, loosen the panel screws and gently pull the chassis. Avoid forcefully accelerating the sliding of the chassis to prevent damage to the equipment.

## 4. Configuration Instructions

### 4.1 Initial Configuration

#### 4.1.1 Power on the system

- Before powering on, ensure that all server configurations are installed according to the corresponding specifications and standards, and the server is powered off but remains connected to the power source. Additionally, ensure that all cables are properly connected, and the power supply voltage matches the requirements of the equipment.
- During the power-on process, please do not disconnect or plug in any 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:  
When the power is connected but the server is not turned on, the power indicator light will be yellow.  
When the power is connected and the server is turned on and booting, the power indicator light will be green.
- Server power-on method:  
The server is set to the "power on" boot policy by default, which means that the server will automatically power on when the power is connected. Users can modify this setting in the BIOS Setup interface.
- During the boot process, press the <DEL> key on the keyboard to enter the BIOS Setup interface. Locate the following interface:



Figure 4-1

#### 4.1.2 Initial data

- BMC default account: admin
- BMC default password: Gooxi @123.
- BMC default address: 192.168. x. x
- BIOS default password: none

#### 4.1.3 Configuration of BIOS

Upon entering the BIOS Setup interface, the following is displayed:



Figure 4-2

The Main interface contains basic information about the BIOS system, such as the BIOS version number, CPU model, and memory capacity. It also allows you to set the system time. For detailed instructions, please refer to the 'BIOS User Manual'.

- Navigation key description:
  - ←: Select Screen
  - ↑↓: Select Item
  - Enter: Select
  - + /-: Change Opt.
  - F 1: General Help
  - F 2: Previous Values
  - F 3: Optimized Defaults
  - F 4: Save & Reset
  - ESC: Exit

#### 4.1.4 Configuration of BMC

In the powered-on state of the server, ensure that the dedicated management network cable for BMC is connected properly.

Using another device, ensure that it is on the same local network as the BMC management network. Enter the BMC IP address into a web browser to access the BMC interface.

The method to check the BMC IP address is as follows:

- After powering on the server, pay attention to the POST process during startup. On the logo screen, in the lower left corner, the IP address is displayed.
- After powering on the server, pay attention to the POST process. Press the <DEL> key on the keyboard to enter the BIOS Setup interface and switch to the following screen:

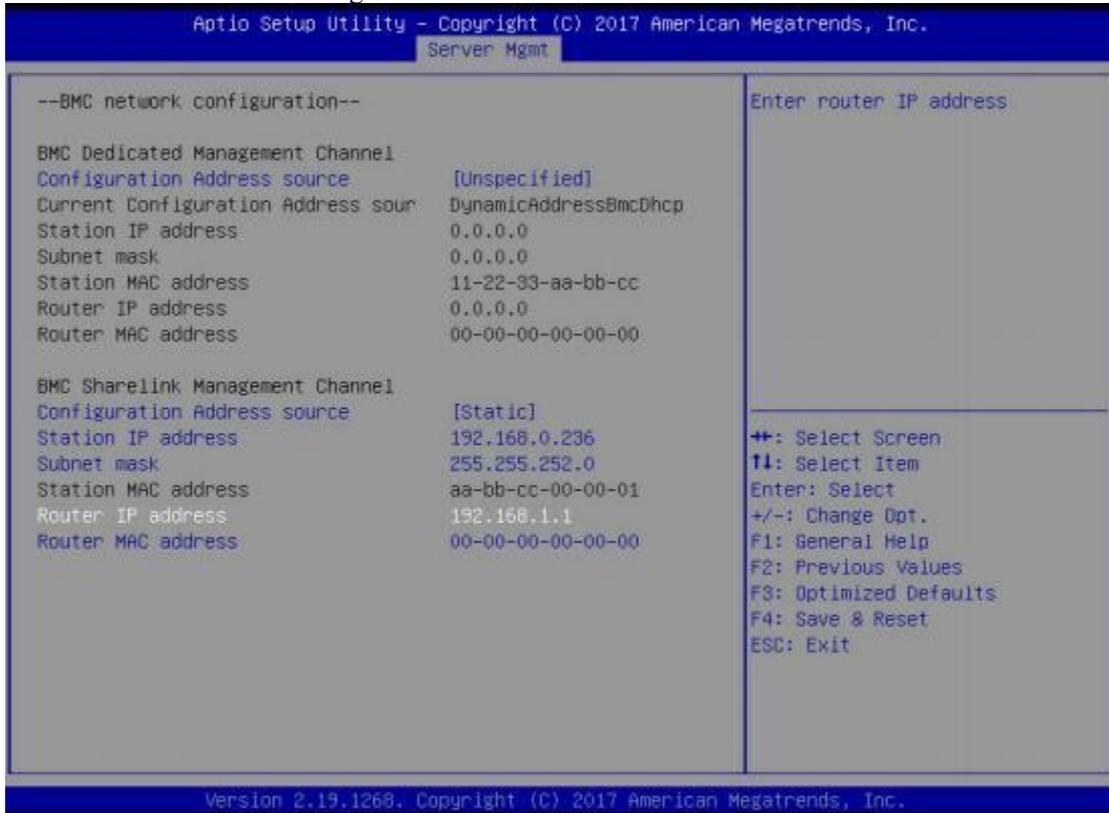


Figure 4-3

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 the BMC parameters
  - Static: BIOS static IP setting
  - DynamicBmcDhcp: BMC is running DHCP for dynamic IP allocation.
  - DynamicBmcNonDhcp: BMC is running a non-DHCP protocol for dynamic IP allocation.
  - Default value: Unspecified

After modifying from Unspecified to other parameters, saving and restarting, the option will revert 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, the network parameter information (IPv4) of the system's shared network port will be displayed. This includes the current IP configuration mode, BMC IP, subnet mask, MAC address, route IP, and route MAC.
- BMC Dedicated Management Channel
- Configuration address source
- Configure the BMC IP address allocation mode, the menu options are:

---

Unspecified: Do not change the BMC parameters

Static: BIOS static IP setting

DynamicBmcDhcp: BMC is running DHCP for dynamic IP allocation.

DynamicBmcNonDhcp: BMC is running a non-DHCP protocol for dynamic IP allocation.

Default value: Unspecified

- After modifying from Unspecified to other parameters, saving and restarting, the option will revert 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, the network parameter information (IPv4) of the system's shared network port will be displayed. This includes the current IP configuration mode, BMC IP, subnet mask, MAC address, route IP, and route MAC.
- Configure IPV6 support
- BMC Sharelink Management Channel
- IPV6 Support
- Select whether to support IPv6, with the following menu options:
  - Enabled: Supports IPv6
  - Disabled: Does not support IPv6
- Default value: Enabled
- After modifying from Unspecified to other parameters, saving and restarting, the option will revert 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, the network parameter information (IPv6) of the system's shared network port will be displayed.
- BMC Dedicated Management Channel
- IPV6 Support
- Select whether to support IPv6, with the following menu options:
  - Enabled: Supports IPv6
  - Disabled: Does not support IPv6
- Default value: Enabled
- After modifying from Unspecified to other parameters, saving and restarting, the option will revert 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, the network parameter information (IPv6) of the system's shared network port will be displayed.

Log in to the BMC management interface.  
Enter the IP address on the web page, as shown in the figure:



Figure 4-4

After entering the account and password, you will enter the home page, where you can perform BMC IP address configuration in the management interface. On the left side of the interface, switch to "Settings Page" -> "Network Settings" -> "Network IP Settings". As shown below:

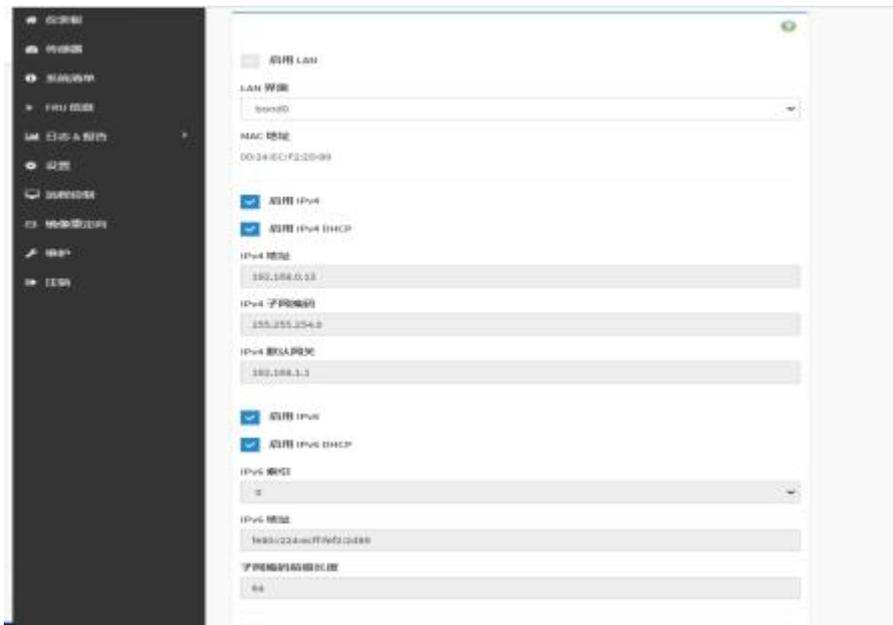


Figure 4-5

This page is used to set the IP address of the BMC management interface.

# 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 technical support for further assistance.

## 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 contact Gooxi technical support for further assistance. 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 technical support for further assistance.

## 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 technical support for further assistance.

## 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 the issue persists even after replacing the RAID card with a known working one, restore to factory settings and update the BIOS version. Contact Gooxi technical support for further assistance.

## 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 technical support for further assistance.