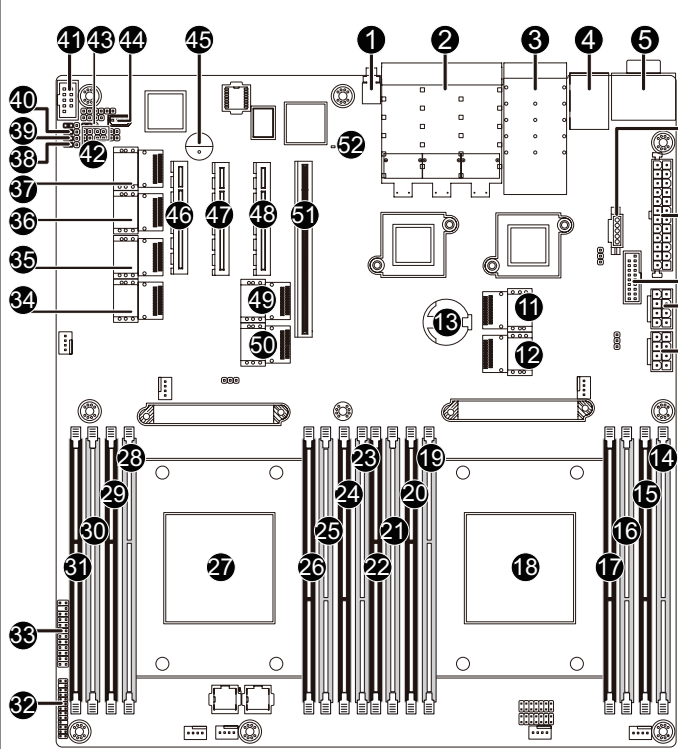


R270-T60/R270-T61 Quick Installation Guide/R270-T60/R270-T61 速安装说明

Motherboard Components/ 主板组件

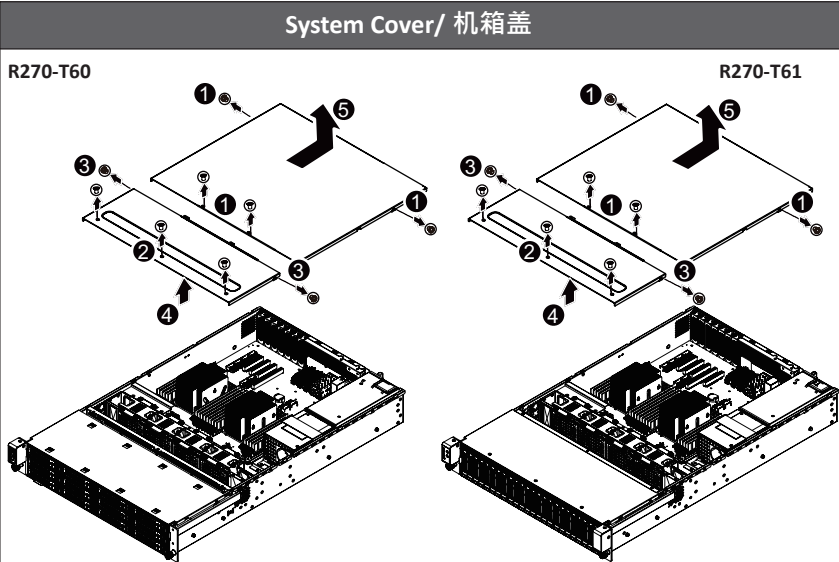


No.	Code	Description
1	SW_ID	ID switch button w/LED
2	QSPF_3	QSPF LAN port #3 (left)
3	QSPF_2	QSPF LAN port #2 (middle)
4	QSPF_1	QSPF LAN port #1 (right)
5	SFP+_0_3	SFP+ connectors #0~#3
6	USB3_MLAN	BMC Management LAN port (top) / USB 3.0 ports (bottom)
7	COM1_VGA	Serial port (top)/VGA port(bottom)
8	PMBUS	PMBus connector
9	ATX1	24 pin power connector
10	F_USB3	USB 3.0 header
11	P12V_AUX2	8 pin power connector (for secondary CPU)
12	P12V_AUX1	8 pin power connector (for primary CPU)
13	MINI_CN0	Mini-SAS connector#0 supports SATA3 6Gb/s
14	MINI_CN1	Mini-SAS connector#1 supports SATA3 6Gb/s
15	BAT	Battery socket
16	DIMM_PO_B0	Channel 2 slot 0 (for primary CPU)
17	DIMM_PO_B1	Channel 2 slot 1 (for primary CPU)
18	DIMM_PO_D0	Channel 4 slot 0 (for primary CPU)
19	DIMM_PO_D1	Channel 4 slot 1 (for primary CPU)
20	CPU0	Cavium ThunderX CN88xx ARMv8 SoC processor (Primary CPU)
21	DIMM_PO_C1	Channel 3 slot 1 (for primary CPU)
22	DIMM_PO_C0	Channel 3 slot 0 (for primary CPU)
23	DIMM_PO_A1	Channel 1 slot 1 (for primary CPU)
24	DIMM_PO_A0	Channel 1 slot 0 (for primary CPU)
25	DIMM_P1_F0	Channel 2 slot 0 (for secondary CPU)
26	DIMM_P1_F1	Channel 2 slot 1 (for secondary CPU)
27	DIMM_P1_H0	Channel 4 slot 0 (for secondary CPU)
28	DIMM_P1_H1	Channel 4 slot 1 (for secondary CPU)
29	CPU1	Cavium ThunderX CN88xx ARMv8 SoC processor (Secondary CPU)
30	DIMM_P1_G1	Channel 3 slot 1 (for secondary CPU)
31	DIMM_P1_G0	Channel 3 slot 0 (for secondary CPU)
32	DIMM_P1_E1	Channel 1 slot 1 (for secondary CPU)
33	DIMM_P1_E0	Channel 1 slot 0 (for secondary CPU)
34	BP_1	HDD back plane board header
35	FP_1	Front panel header
36	MINI_CN4	Mini-SAS connector#4 supports SATA3 6Gb/s
37	MINI_CN5	Mini-SAS connector#5 supports SATA3 6Gb/s
	MINI_CN6	Mini-SAS connector#6 supports SATA3 6Gb/s
	MINI_CN7	Mini-SAS connector#7 supports SATA3 6Gb/s

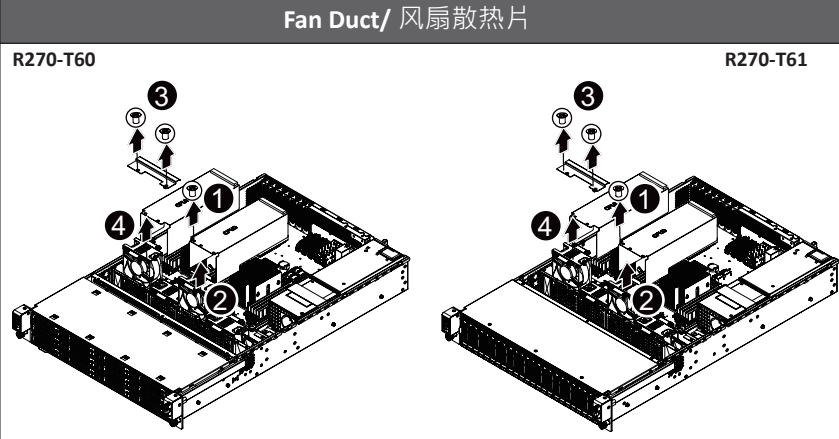
No.	Code	Description
38	S3_MASK	S3 Power On Select Jumper
		1-2 Close: Stop an initial power on when BMC is not ready.
		2-3 Close: Keep initial power on.
		(Default setting)
		Clearing Supervisor Password jumper
		1-2 Close: Normal operation. (Default setting)
		2-3 Close: Skip supervisor password.
		BIOS recovery jumper
		1-2 Close: Normal operation. (Default setting)
		2-3 Close: BIOS recovery mode.
39	BIOS_PWD	Serial port cable connector
		LAN Active LEDs
40	BIOS_RCVR	LAN3 active LED (upper-left corner)
		LAN4 active LED (bottom-left corner)
		LAN5 active LED (upper-right corner)
		LAN6 active LED (bottom-right corner)
		LAN7 active LED (bottom-right corner)
41	COM2	Clear CMOS jumper
42	LAN3_ACT	1-2 Close: Normal operation (Default setting)
	LAN4_ACT	1-2 Close: Clear CMOS data.
	LAN5_ACT	IPMB connector
	LAN6_ACT	Buzzer
	LAN7_ACT	PCI Express x8 slot
43	CLR_CMOS	PCI Express x8 slot
		PCI Express x8 slot
		Mini-SAS connector#3 supports SATA3 6Gb/s
		Mini-SAS connector#2 supports SATA3 6Gb/s
		PCI Express x16 slot
		BMC firmware readiness LED
44	IPMB	
45	BUZZER	
46	PCIE_5	
47	PCIE_4	
48	PCIE_3	
49	MINI_CN3	
50	MINI_CN2	
51	PCIE_2	
52	LED_BMC	

Front Panel Header/ 前面板接头			
No.	Pin Define	No.	Pin Define
24	1 Power LED+	2	5V Standby
23	1 No Pin	4	ID LED+
1	5 Power LED-	6	ID LED-
2	7 HDD LED+	8	System Front Board LED+
3	9 HDD LED-	10	System Status LED+
4	11 Power Button	12	LAN1 Active LED+
5	13 GND	14	LAN1 Link LED-
6	15 Reset Button+	16	SMBus Data
7	17 GND	18	SMBus Clock
8	19 ID Switch+	20	Case Open
9	21 ID Switch-	22	LAN2 Active LED
10	23 NMI Switch-	24	LAN2 Link LED-

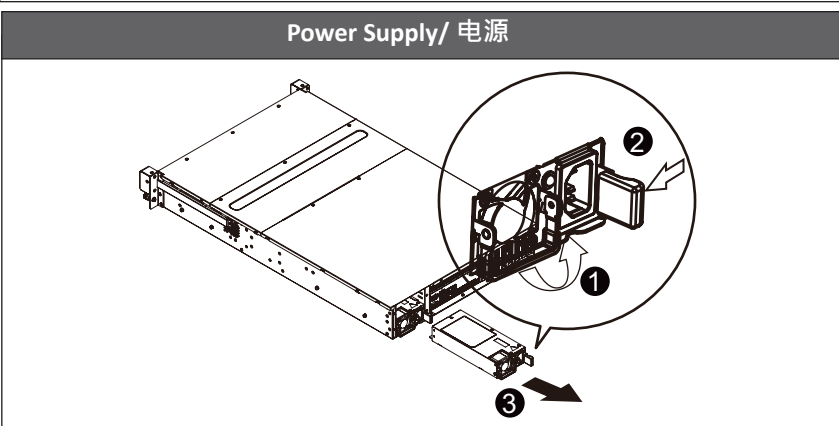
HDD Back Plane Board Header/ 硬盘驱动器底板接头			
No.	Pin Define	No.	Pin Define
1	1 BP_SGP_CLK	2	No Connect
2	3 BP_SGP_GLD	4	FAN_SGP_Gate
3	5 BP_SGP_DOUT	6	GND
4	7 Key Pin	8	Reset
5	9 GND	10	BP_LED_A_N
6	11 BP_LED_G_N	12	GND
7	13 BP_SGP_DIN	14	No Connect
8	15 GND	16	SMB_BP_DATA
9	17 GND	18	SMB_BP_CLK
10	19 P_3V3_AUX	20	BMC_ACK
11	21 P_3V3_AUX	22	BMC_REQ
12	23 GND	24	Key Pin
13	25 BP_PRESENSE	26	GND



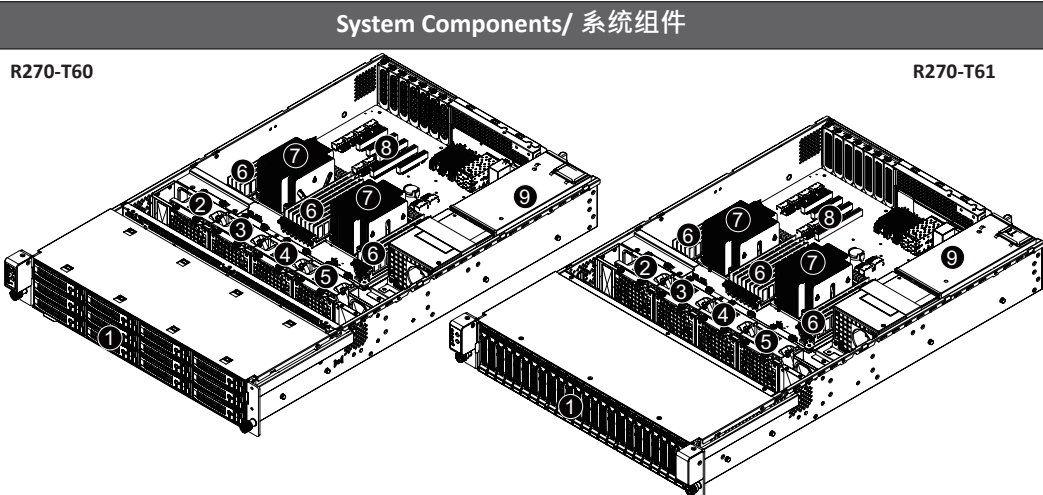
CAUTION!
Before you remove or install the system cover:
Make sure the system is not turned on or connected to AC power.
注意！
在卸下或安装系统机盖之前，请注意下列事项：
确保系统未开启且未连接到交流电源。



CAUTION!
To remove fan duct, follow the instruction:
1. CPU0: Remove the securing screw, lift system fan slightly, then remove the fan duct.
2. CPU1: Remove the securing screws of supporting bracket, lift system fan slightly, then remove the fan duct.
注意！
1. CPU0: 移除导风罩上的螺丝并将风扇轻轻往上拉即可移除导风罩。
2. CPU1: 移除铁片上的螺丝并移除铁片，将风扇轻轻往上拉即可移除导风罩。

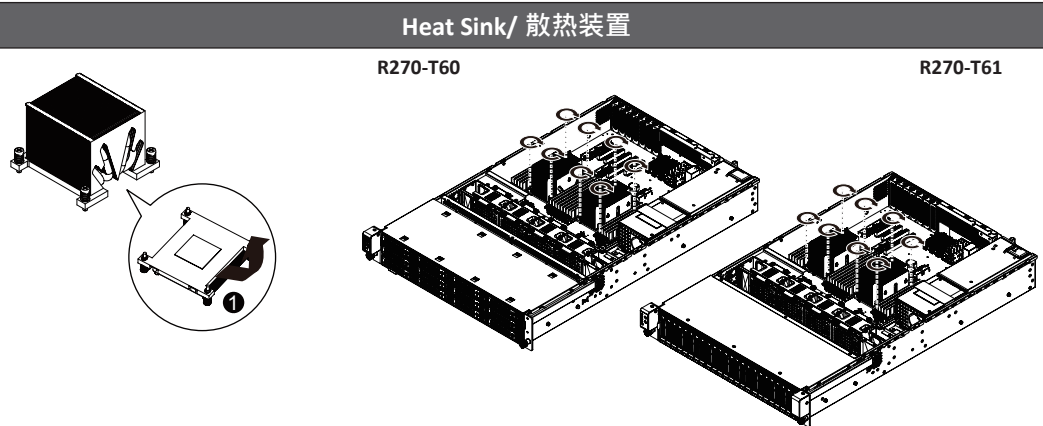


CAUTION!
Before you remove or install the power supplies:
Make sure the system is not turned on or connected to AC power.
注意！
在替换或安装电源前，请注意下列事项：
确保系统未开启且未连接到交流电源。

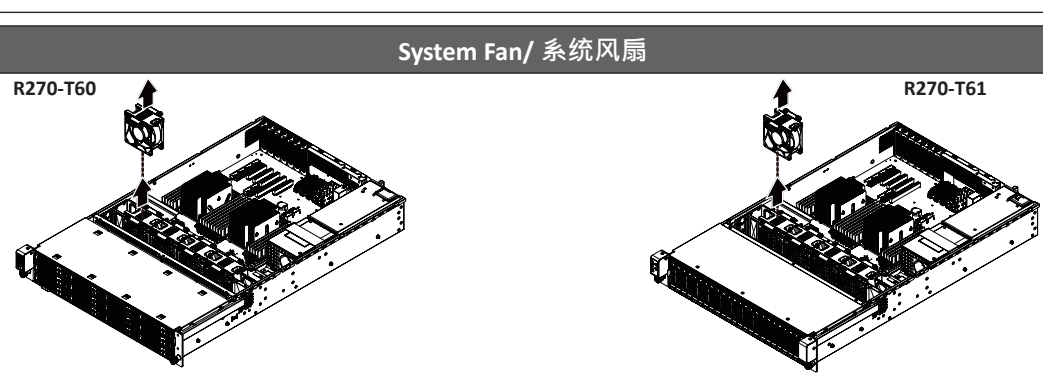


No.	Description	No.	Description
1	HDD bays	1	HDD bays
2	System fan #1 (FAN1_A/FAN1_B)	2	System fan #1 (FAN1_A/FAN1_B)
3	System fan #2 (FAN2_A/FAN2_B)	3	System fan #2 (FAN2_A/FAN2_B)
4	System fan #3 (FAN3_A/FAN3_B)	4	System fan #3 (FAN3_A/FAN3_B)
5	System fan #4 (FAN4_A/FAN4_B)	5	System fan #4 (FAN4_A/FAN4_B)
6	Memory slots	6	Memory slots
7	CPU heat sink	7	CPU heat sink
8	PCIe riser slots	8	PCIe riser slots
9	Power supply cage	9	Power supply cage

CAUTION!
To connect system fan connector, follow the instruction:
● Blue/Red cable connect to odd numbered connector.
● White/Ambler cable connect to even numbered connector.
注意！
● 蓝/红电缆连接于单数风扇插座。
● 白/橘电缆连接于双数风扇插座。

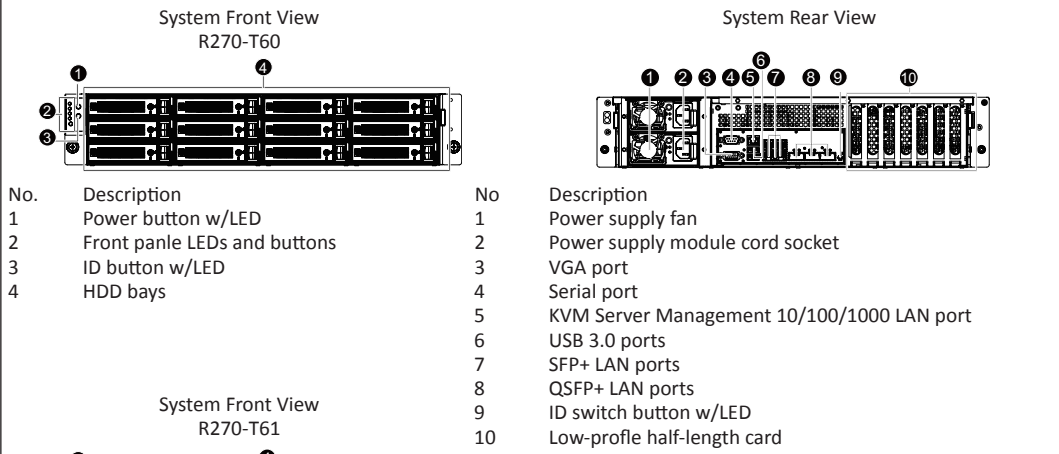


CAUTION!
Remove fan duct before installing the CPU heat sinks.
注意！
安装散热装置前请先移除导风罩。



CAUTION!
Before you remove or install the system fan:
● Make sure the system is not turned on or connected to the AC power.
● Disconnect all necessary cable connections. Failure to observe these warnings could result in personal injury or damage to the equipment.
注意！
确保系统未开机且未连接到交流电源。
断开所有必要的线缆连接。若不遵循这些警告，可能造成人员伤害或设备损坏。

Front & Rear/ 系统前部与后部概览



No.	Description	No.	Description
1	Power button w/LED	1	Power supply fan
2	Front panel LEDs and buttons	2	Power supply module cord socket
3	ID button w/LED	3	VGA port
4	HDD bays	4	Serial port
		5	KVM Server Management 10/100/1000 LAN port
		6	USB 3.0 ports
		7	SFP+ LAN ports
		8	QSPF+ LAN ports
		9	ID switch button w/LED
		10	Low-profile half-length card

State	Description
Yellow On	1Gbps data rate
Green On	100Mbps data rate
Off	10Mbps data rate

State	Description
Yellow On	1 Gbps data rate
Green On	10 Gbps data rate

State	Description
Green On	Link between system and network
Blink	LAN is active

State	Description
Green On	System is powered on
Off	System is powered off

State	Description
Blue On	System identification is active.
Off	System identification is disabled.

State	Description
Green On	40 Gbps data rate
Yellow On	10 Gbps data rate

State	Description
Green On	Link between system and network
Blink	LAN is active

State	Description
Green On	System is powered on
Off	System is powered off

State	Description
Blue On	System identification is active.
Off	System identification is disabled.

State	Description
Green On	40 Gbps data rate
Yellow On	10 Gbps data rate

State	Description
Green On	Link between system and network
Blink	LAN is active

State	Description
Green On	System is powered on
Off	System is powered off

State	Description
Blue On	System identification is active.
Off	System identification is disabled.

State	Description
Green On	40 Gbps data rate
Yellow On	10 Gbps data rate

State	Description
Green On	Link between system and network
Blink	LAN is active

State	Description
Green On	System is powered on
Off	System is powered off

State	Description
Blue On	System identification is active.
Off	System identification is disabled.

State	Description
Green On	40 Gbps data rate
Yellow On	10 Gbps data rate

State	Description
Green On	Link between system and network
Blink	LAN is active

State	Description
Green On	System is powered on
Off	System is powered off

State	Description
Blue On	System identification is active.
Off	System identification is disabled.

State	Description
Green On	40 Gbps data rate
Yellow On	10 Gbps data rate

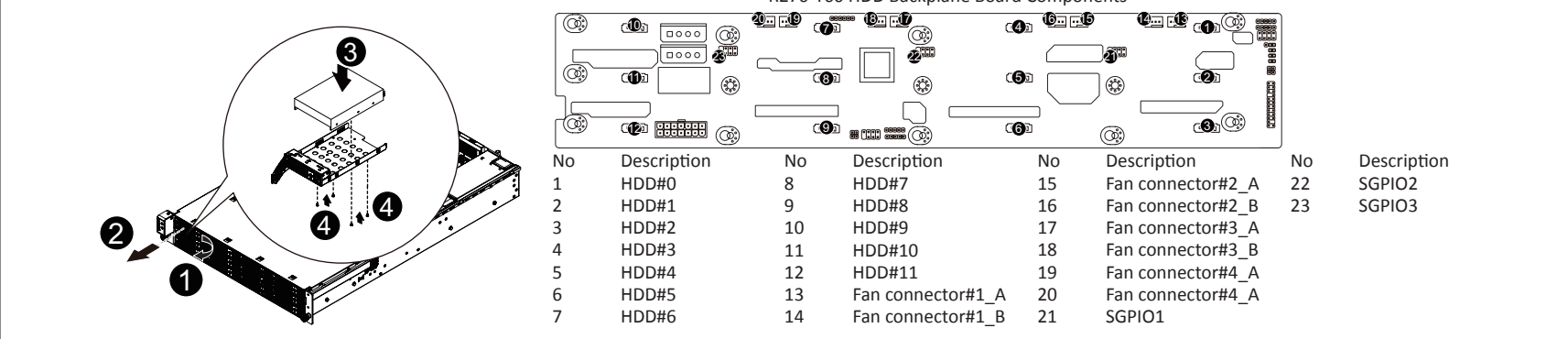
State	Description
Green On	Link between system and network
Blink	LAN is active

State	Description
Green On	System is powered on
Off	System is powered off

State	Description
Blue On	System identification is active.
Off	System identification is disabled.

State	Description
Green On	40 Gbps data rate
Yellow On	10 Gbps data rate

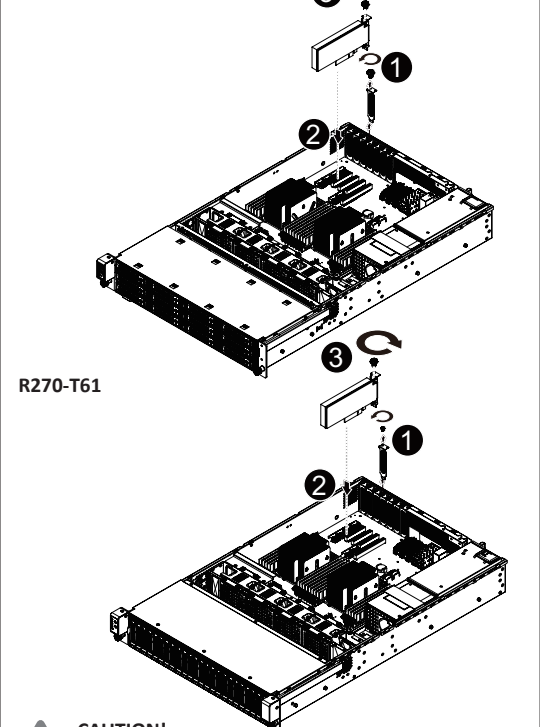
Hard Disk Drive and Back Plane Board/ 硬盘驱动器与硬盘驱动器底板



No.	Description	No.	Description	No.	Description	No.	Description
1	HDD#0	8	HDD#7	15	Fan connector#2_A	22	SGPIO2
2	HDD#1	9	HDD#8	16	Fan connector#2_B	23	SGPIO3
3	HDD#2	10	HDD#9	17	Fan connector#3_A		
4	HDD#3	11	HDD#10	18	Fan connector#3_B		
5	HDD#4	12	HDD#11	19	Fan connector#4_A		
6	HDD#5	13	Fan connector#1_A	20	Fan connector#4_B		
7	HDD#6	14	Fan connector#1_B	21	SGPIO1		

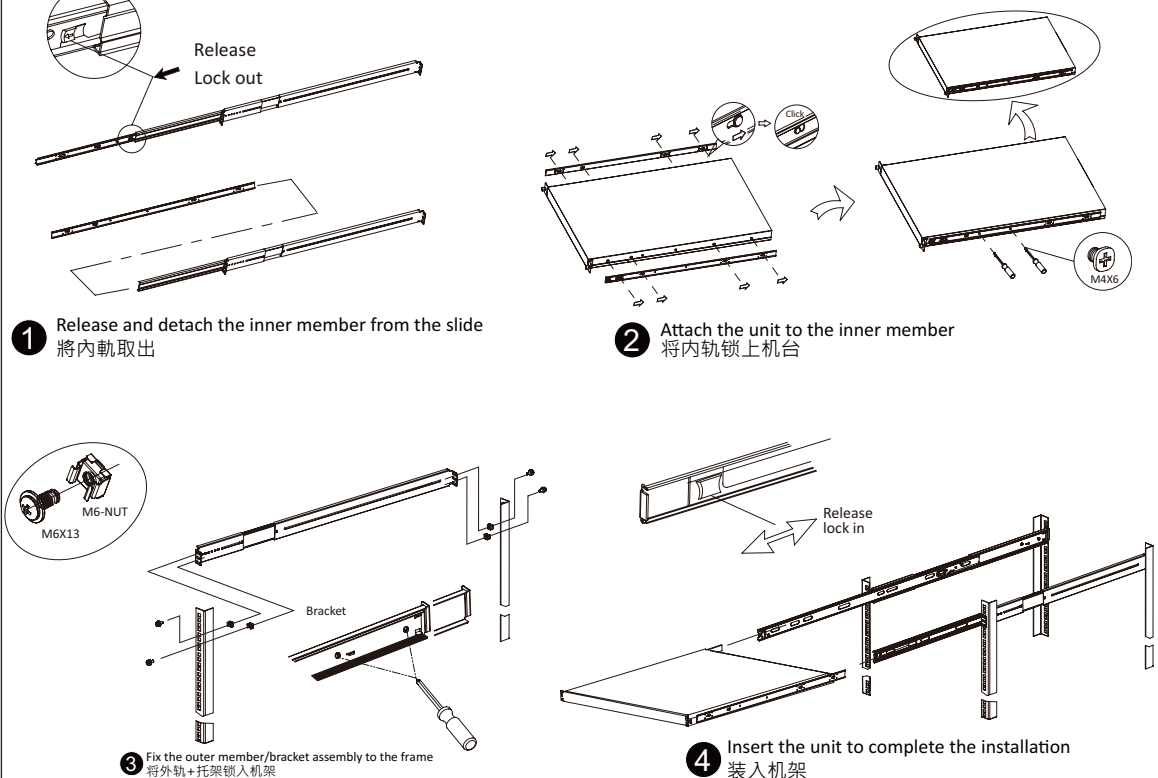
No.	Description	No.	Description	No.	Description	No.	Description
1	HDD#0	14	HDD#13	27	Fan connector#2_A		
2	HDD#1	15	HDD#14	28	Fan connector#2_B		
3	HDD#2	16	HDD#15	29	Fan connector#3_A		
4	HDD#3	17	HDD#16	30	Fan connector#3_B		
5	HDD#4	18	HDD#17	31	Fan connector#4_A		
6	HDD#5	19	HDD#18	32	Fan connector#4_B		
7	HDD#6	20	HDD#19	33	SGPIO1		
8	HDD#7	21	HDD#20	34	SGPIO2		
9	HDD#8	22	HDD#21	35	SGPIO3		
10	HDD#9	23	HDD#22	36	SGPIO4		
11	HDD#10	24	HDD#23	37	SGPIO5		
12	HDD#11	25	Fan connector#1_A	38	SGPIO6		
13	HDD#12	26	Fan connector#1_B				

PCI Express Card/PCI Express 扩展卡




CAUTION!
Before you remove or install the PCI express card:
Make sure the system is not turned on or connected to AC power.
注意！
在安装扩展卡前，请注意下列事项：
确保系统未开启且未连接到交流电源。

Rail Kit/ 导轨



WEEE Symbol Statement



The symbol shown below is on the product or on its packaging, which indicates that this product must not be disposed of with other waste. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local government office, your household waste disposal service or where you purchased the product for details of environmentally safe recycling.

- When your electrical or electronic equipment is no longer useful to you, "take it back" to your local or regional waste collection administration for recycling.
- If you need further assistance in recycling, reusing in your "end of life" product, you may contact us at the Customer Care number listed in your product's user's manual and we will be glad to help you with your effort.

Restriction of Hazardous Substances (RoHS) Directive Statement


GIGABYTE products have not intended to add and safe from hazardous substances (Cd, Pb, Hg, Cr+6, PBDE and PBB). The parts and components have been carefully selected to meet RoHS requirement. Moreover, we at GIGABYTE are continuing our efforts to develop products that do not use internationally banned toxic chemicals.

限制使用有害物质 (RoHS) 指令声明

GIGABYTE产品未故意添加和使用有害物质（Cd、Pb、Hg、Cr+6、PBDE和PBB）。所有部件和元件均经过严格挑选，符合RoHS要求。此外，我们GIGABYTE一直致力于开发不使用国际上禁止的有毒化学品的产品。

California Proposition 65 Warning


WARNING:
This product contains a chemicals , including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, please visit: <http://www.p65warnings.ca.gov/>



Battery Warning:

Incorrectly installing a battery or using incompatible battery may increase the risk of ifre explosion. Replace the battery only with the same or equivalent type.

- Do not disassemble, crush, puncture batteries.
- Do not store or place your battery pack next to or in a heat source such as a fire, heatgenerating appliance, can or exhaust vent. Heating battery cells to temperatures above 65oC (149oF) can cause explosion or fire.
- Do not attempt to open or service batteries. Do not dispose of batteries in a fire or with household waste.



电池警告：

电池安装不当或使用不兼容的电池会增加火灾爆炸风险。更换电池时，只可使用相同或同等类型的电池。

- 请勿拆解、挤压、刺破电池。
- 请勿将电池存放或放置在热源中或旁边，如火源、产生热的设备、罐体或排气口。电池温度升至65oC (149oF)以上可能导致爆炸或火灾。
- 请勿尝试打开或维修电池。电池废弃时，请勿投入火中或者作为家庭废弃物进行处理。

中华人民共和国电子信息产品中有毒有害物质或元素的名称及含量标识格式

依照中华人民共和国的有毒有害物质的限制要求(China RoHS)提供以下的表格：



关于符合中国《电子信息产品污染控制管理办法》的声明
Management Methods on Control of Pollution from Electronic Information Products
(China RoHS Declaration)

产品中有毒有害物质或元素的名称及含量
Hazardous Substances Table

部件名称(Parts)	铅 (Pb)	有毒有害物质或元素 汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
PCB板 PCB	○	○	○	○	○	○
结构件及风扇 Mechanical parts and Fan	×	○	○	○	○	○
芯片及其他主动零件 Chip and other Active components	×	○	○	○	○	○
连接器 Connectors	×	○	○	○	○	○
被动电子元器件 Passive Components	×	○	○	○	○	○
线材 Cables	○	○	○	○	○	○
焊接金属 Soldering metal	○	○	○	○	○	○
助焊剂、散热膏、标签及其他耗材 Flux,Solder,Paste,Label and other Consumable Materials	○	○	○	○	○	○

○:表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006标准规定的限量要求以下。
Indicates that this hazardous substance contained in all homogenous materials of this part is below the limit requirement SJ/T 11363-2006

×:表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求。
Indicates that this hazardous substance contained in at least one of the homogenous materials of this part is above the limit requirement in SJ/T 11363-2006



对销售之目的所发售产品，本表显示我公司供应链的电子信息产品可能包含这些物质。注意：在所售产品中可能会也可能不会含有所有列出的部件。
This table shows where these substances may be found in the supply chain of our electronic information products, as of the date of the sale of the enclosed products. Note that some of the component types listed above may or may not be a part of the enclosed product.

Ambient Operation

This equipment should not be operated above an ambient operation temperature of 35 degrees centigrade.

Restricted Access Location

- This server is intended for installation only in restricted access locations where .
- Access can only be gained by SERVICE PERSONS who have been instructed about the reasons for the restrictions applied to the location and about any precautions that shall be taken.
 - Access is through the use of a TOOL or lock and key, or other means of security, and is controlled by the authority responsible for the location.



The system may have more than one power supply cable. To reduce the risk of electrical shock, a trained service technician may need to disconnect all power supply cables before servicing the system.

Power Supply

CAUTION: The power supplies in your system may produce high voltages and energy hazards, which can cause bodily harms. Unless you are instructed otherwise, only trained service technicians are authorized to remove the covers and access any of the components inside the system.


Reliable Earthing:

CAUTION: Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this server during an electrical storm
CAUTION: Connect all power cords to a properly wired and grounded electrical outlet.

Hazardous FAN

CAUTION: This server contains hazardous moving fan blades, keep fingers and other bodyparts away.
Disconnect all power supply cords before servicing. Connect power supply cord only after all the covers are properly installed.

Hazardous Energy




CAUTION: This server contains hazardous energy over 240VA on the backplane. To prevent accidental short circuit, always insert the HDD trays after servicing.

Rack Mount Instructions

- The following or similar rack-mount instructions are included with the installation instructions:
- A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
- B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
- C) Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- D) Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- E) Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips)."

Disconnect 2 power supply cords before servicing



CAUTION: Slider/rail mounted equipment is not to be used as a shelf or a work space.

FCC Statement

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

CAN ICES-3 (A)/NMB-3(A)

声明 本系统功率大于 1300W



CAUTION

TWO PERSON LIFT REQUIRED

CAUTION: Whenever you need to lift the system, get others to assist you.
To avoid injury, do not attempt to lift the system by yourself.

Connect With Us

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<http://b2b.gigabyte.com>

You are a professional?

Get access to our complete source of sales & marketing materials at:

<http://reseller.b2b.gigabyte.com>



<https://www.facebook.com/gigabyteserver>