

Netweb Technologies India Ltd.

Tyrone

USER GUIDE

ADI300A3R-212

Table of Contents

- 1. Regulatory Notices..... 3**
 - 1.1 Environment Compliances – EPR (E-Waste)..... 3
 - 1.2 Hazardous substances Information..... 3
 - 1.3 Battery Information 4
 - 1.4 Environmental Policy 4
 - 1.5 Legal Information 5
- 2. Safety Information 6**
 - 2.1 General Safety Instructions 6
 - 2.2 Electrical Safety 6
 - 2.3 Assembly and Installation..... 7
 - 2.4 General Precautions During Operation 7
 - 2.5 When to Contact Service Personnel..... 8
- 3. System Specifications 9**
- 4. System Overview 11**
 - 4.1 System Storage Topology..... 13
 - 4.2 System LED Indicators..... 14
 - 4.3 Motherboard Layout..... 15
 - 4.4 System Board LEDs 16
 - 4.5 Motherboard Jumpers 18
 - 4.6 Motherboard Connectors 21
 - 4.7 Other Connectors & Components..... 27
- 5. System Setup & Getting Started 29**
 - 5.1 Necessary Tools..... 29
 - 5.2 Drive Bay 30
 - 5.3 System Cover..... 31
 - 5.4 Memory Configuration 34
 - 5.5 System Fan..... 36
 - 5.6 CPU & Heatsink Installation..... 37
- 6. Power Supply Unit (PSU) 41**
- 7. Slide Rail 42**
 - 7.1 Installing Inner Rail 42
 - 7.2 Retracting Outer Rail Bracket 43
 - 7.3 Installing System into Rack 44

7.4 Removing System from Rack	45
7.5 Detaching Outer Rail Bracket from Rack Frame	46
8. Service support & Technical Support	47

1. Regulatory Notices

1.1 Environment Compliances – EPR (E-Waste)

- As per India's E-Waste (Management) Rules, 2022, electrical and electronic equipment (EEE) cannot be disposed of as regular municipal waste.
- A toll-free consumer helpline is available to assist customers with safe e-waste disposal and provide details of the nearest authorized drop-off point.

Tel: [1800-419-0688](tel:1800-419-0688), Email :compliance@netwebindia.com; E-waste bins are placed at service centers, collection points, and branch offices for convenient and secure disposal.

Please contact your local distributor or visit our website for information on proper disposal and take-back options.

URL Link- <https://www.netwebindia.com/gogreen.php>

Do not dispose of the motherboard in regular waste. This product is designed for recycling and reuse. The cross-out wheeled bin symbol means this product should not go in regular municipal waste. Look up local rules for safe disposal of electronic products.



Do not dispose of mercury-containing button cell batteries with household waste. The cross-out wheeled bin symbol indicates that the battery must be taken to company's authorized recycling facilities instead of being discarded in municipal waste.



1.2 Hazardous substances Information

- This product complies with applicable chemical substance regulations related to hazardous materials used in electrical and electronic equipment.
- The technical documentation has been prepared in accordance with **IEC 63000:2016/AMD1:2022**, which specifies procedures to demonstrate compliance with restrictions on hazardous substances.
- The product does not contain restricted substances beyond permissible limits as defined in applicable environmental directives, such as:
 - RoHS (Restriction of Hazardous Substances): The product does not contain restricted substances beyond permissible limits as defined under the RoHS framework. For official substance limits and guidance, refer to the competent authority's published materials.
 - E-Waste (Management) Rules, 2022: For the latest rules and updates, consult the Central Pollution Control Board's official resources. For more information regarding material composition or compliance documentation,
 - please contact: [Email: compliance@netwebindia.com](mailto:compliance@netwebindia.com)

1.3 Battery Information

Safety Warnings: —

Please take special precautions if this product comes with a battery.



Warning! There's danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.

- Do not dispose of batteries in fire or a hot oven, or crush or cut them mechanically, as this may result in an explosion.
- Avoid leaving a battery in an extremely high temperature or extremely low air pressure environment that can result in an explosion or the leakage of flammable liquid or gas.
- Do not ingest battery. If the coin/button cell battery is swallowed, it can cause severe internal burns and can lead to death. Keep new and used batteries away from children.

Battery Disposal (India)



Batteries, battery packs, and accumulators must not be disposed of with regular household waste.

Please use authorized collection centers or recycling facilities for proper disposal or recycling of batteries.

Proper disposal helps protect the environment and complies with India's Battery Waste Management Rules.

1.4 Environmental Policy

Environmental, Social, and Governance (ESG)

Ranking Overview

At NETWEB, we are committed to sustainable and responsible business practices that support environmental protection, social well-being, and strong governance.

Our ESG Focus Areas:

- **Environmental:** Minimizing our environmental impact through energy-efficient products, responsible e-waste management, and reducing carbon footprint.
- **Social:** Supporting employee welfare, community engagement, and diversity and inclusion initiatives.
- **Governance:** Maintaining transparency, ethical business conduct, and compliance with all applicable laws and regulations.

1.5 Legal Information

Copyright © 2025 Netweb All Rights Reserved



No part of this manual, including the products and software described in it, may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form or by any means, except documentation kept by the purchaser for backup purposes, without the express written permission of Netweb Technologies.

Specifications and information in this manual are provided for informational purposes only and are subject to change without notice. Netweb Technologies assumes no responsibility or liability for any errors or inaccuracies that may appear in this manual, including those related to the products and software described.

2. Safety Information



Please read and follow these safety instructions carefully before installing, operating or performing maintenance on the server.

2.1 General Safety Instructions

- Always read the safety instructions carefully.
- Keep this User's Manual for future reference.
- Keep this equipment away from humidity.
- Lay the equipment on a stable, flat surface before setting it up.
- Do not cover the air openings to prevent overheating.
- Avoid spilling liquids into the equipment to prevent damage or electrical shock.
- Do not leave the equipment in an unconditioned environment. Storage temperatures above 60°C (140°F) may cause damage.

2.2 Electrical Safety

2.2.1 Power Setup and Protection

- Ensure the power source matches the equipment voltage before connection.
- Plug the power cord into a grounded (earthed) electrical outlet that is always easily accessible. Do not disable the power cord grounding plug, as it is an important safety feature.
- Do not use a power adapter other than the one provided.
- Place the power cord to avoid being stepped on or crushed.
- Protect the server from power fluctuations and outages using a regulated uninterruptible power supply (UPS).

2.2.2 Handling Power Connections

- Unplug the power cord before inserting add-on cards or modules.
- Disconnect all power supplies before maintenance to avoid electrical shock. If the unit has more than one power supply, disconnect all of them.
- Unplug the power cord to fully disconnect the system. The front panel Power On/ Standby button does not completely shut off system power. Portions of the power supply and some internal circuitries remain active until AC/DC power is removed.

2.3 Assembly and Installation

This equipment must be installed in restricted access areas and handled only by qualified personnel. Installation should comply with all relevant safety standards.

- Before proceeding with installation, ensure that:
- The area is free from dust, moisture, and vibration.
- Proper grounding and electrical protection (circuit breakers, surge protection) are in place.
- All power connections and cable routes follow the manufacturer's guidelines.
- Adequate ventilation is maintained to prevent overheating.
- Warning: Failure to follow these instructions may result in equipment damage, electrical hazards, or personal injury.

2.3.1 Lifting and Placement

- Warning: Heavy equipment. Use team lifting and approved handling practices.
- Follow occupational health and safety guidelines for manual material handling.
- A minimum of two people is required to lift or install the server. For installations above chest height, a third person may be needed for alignment.
- Secure the chassis to the slide rails before extending; an unsecured or partially extended server can destabilize the rack.

Hot Surfaces

- Allow components like drives and power supplies to cool before touching.

2.3.2 Energy Pack Handling after Removal

To reduce the risk of fire or burns:

- Do not disassemble, crush, or puncture the energy pack.
- Avoid shorting external contacts.
- Do not dispose of the energy package in fire or water.

2.3.3 Other Components

- Keep away from hazardous moving parts, such as fan blades, to prevent injury.
- Do not drop or jolt the system, as this may damage internal components or compromise safety.

2.4 General Precautions During Operation

- Avoid operating the server with the access panel open or removed for extended periods, as this disrupts airflow and may cause overheating.
- Do not insert incorrect connectors into ports to avoid damage to components or the risk of electrical hazards.
- This equipment is not suitable for use in locations where children are likely to be present.

2.5 When to Contact Service Personnel

Immediately contact qualified service personnel if you observe any of the following:

- The power cord or plug is damaged.
- Liquid has spilled into the equipment.
- The equipment has been exposed to excessive moisture or water.
- The system fails to operate as described in the User Guide.
- The equipment has been dropped or suffered physical impact.
- There are visible signs of damage, cracks, or broken parts.



Warning:

Do not attempt to open, repair, or disassemble the equipment yourself. Doing so may void the warranty and pose safety risk.

3. System Specifications

Category	Specification
System Overview	Form factor: 2U Dimension: 436 mm (W) x 87 mm (H) x 660 mm (D) Motherboard: AB12XH-L6i
Processor System	Supports Intel Xeon 6 th Gen 6500/6700 series Processors Dual socket LGA 4710 (E2), Up to 350W TDP Chipset- SOC
Memory	8 + 8 DDR5 DIMM, 16-channel (1DPC), Supports DDR5 288-pin RDIMM/RDIMM-3DS/MCRDIMM Max. DIMM Frequency: RDIMM up to 6400 MHz (1DPC), MCRDIMM up to 8000MHz (1DPC) Supports up to 4TB (3DS RDIMM)
PCIe Expansion Slot	6 x16 PCIe5.0 / CXL2.0 3 x8 MCIO PCIe 5.0 / CXL2.0
Storage	12 x Hot-swap 3.5"/2.5" drive bays SAS/SATA 2 x M.2 2280 PCIe Gen5.0 x4 (On Board)
Front panel	Button: Power w/ LED, Reset, UID LEDs: 2x LAN Activity, 1x HDD Activity, 1x Alarm LED I/O port: 2x USB 3.0 Type A
Rear I/O	Button: UID LED Button I/O port: 1x COM port, 2x USB 3.0 Type-A, 2x RJ45 LAN, 1x VGA Port
Power Supply	Supports 1300W/1600W CRPS Efficiency: 80 + Titanium
Server Management	BMC Controller: ASPEED AST2600 Broadcom BCM5720 for dual port 1GbE
Environmental	0°C~35°C operating -20°C~60°C non-operating 20%~90% non-condensing

Category	Specification
Security	TPM 2.0 Onboard Chassis Intrusion

4. System Overview



Fig. 1

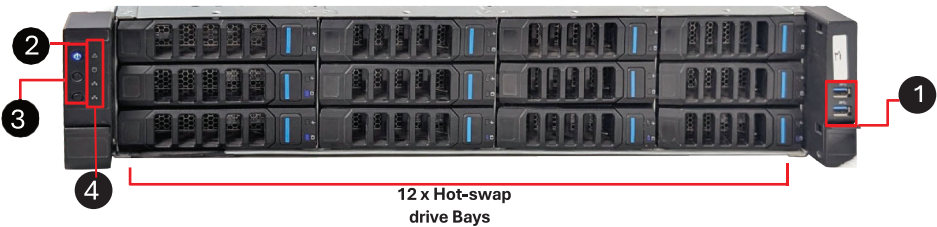


Fig. 1(b)

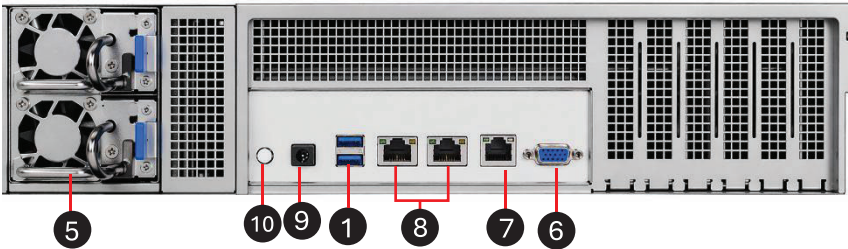


Fig. 1(c)

Number	Name
1	USB 3.0 Type-A Port
	This connector is provided for USB peripheral devices.
	 Important High-speed devices are recommended for USB 3.2 ports whereas low speed devices, such as mouse or keyboard, are suggested to be plugged into the USB 2.0 ports.
2	 System Power Button/ LED
3	UID Button/ LED
	 System Reset Button
4	 System Alarm LED
	 LAN Activity LEDs
	 Drive Activity LED
5	Power Supply Unit
6	VGA Port (DB-15)
7	BMC IPMI Port
8	RJ45 LAN Port
9	COM Port
10	UID LED Button (default) & System Reset Button

4.1 System Storage Topology



Fig. 2

Configurable SAS/SATA

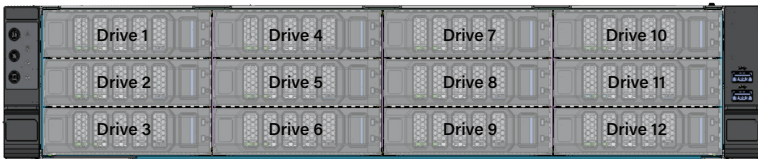


Fig. 2(a)

SAS/SATA	SAS/SATA	SAS/SATA	SAS/SATA
SAS/SATA	SAS/SATA	SAS/SATA	SAS/SATA
SAS/SATA	SAS/SATA	SAS/SATA	SAS/SATA

4.2 System LED Indicators

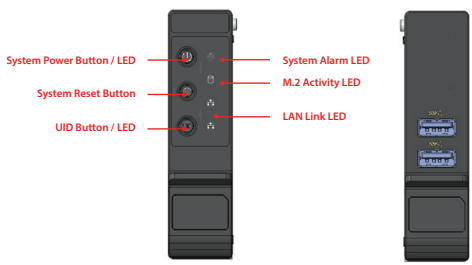


Fig. 3

LED	LED State	Description
 SystemPowerLED	 Blue	System power is on
		System power is on ACPI S0 state
	 Blinking	System is sleeping
	 Off	System power is off
 UIDLED	 Blue	Identify active via command or button
	 Off	No identification
 SystemAlarmLED	 Green	BMC initialization
	 Red	System has failed
	 Off	System is running/ normal operation
 NICLinkLED	 Blinking	NIC activity is occurring
	 Off	NIC link is not established
 M.2ActivityLED	 Amber	M.2 present, no activity
	 Blinking	M.2 accessing
	 Off	No M.2 activity



Important

The system photos provided for demonstration purposes only. The appearance of your system may vary depending on the model you purchased.

4.3 Motherboard Layout

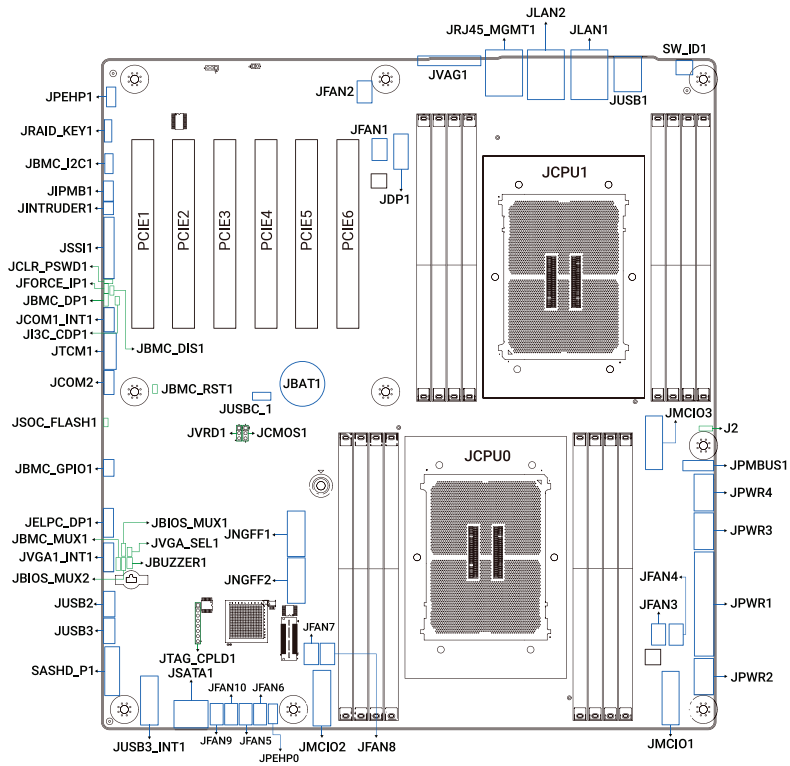


Fig. 4

4.4 System Board LEDs

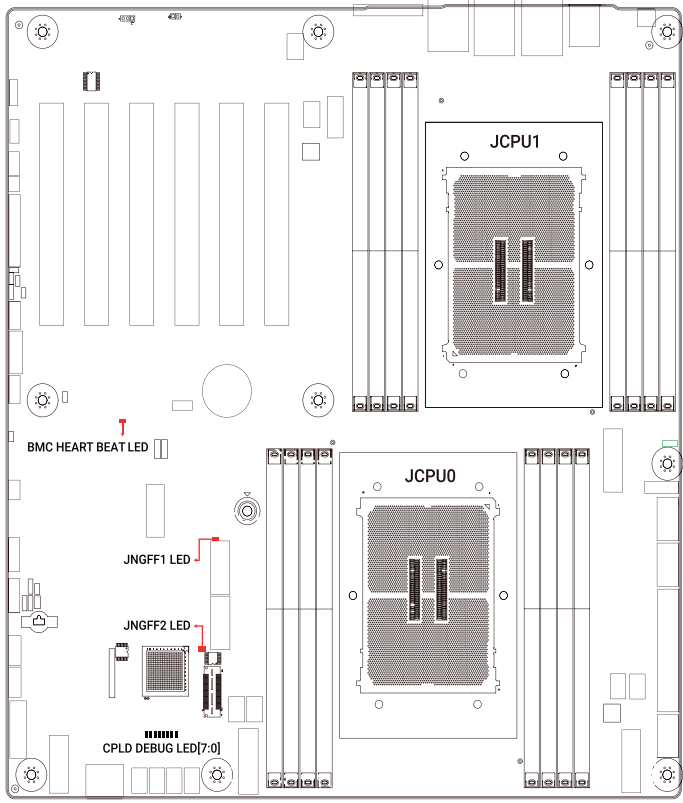


Fig. 5

4.4.1 Rear Chassis LEDs

- The NIC port LED indicators must be powered through the Vaux (standby) voltage rail to maintain functionality during system standby conditions.
- This configuration ensures consistent behavior with stand-alone NIC adapter cards, enabling support for Wake-on-LAN (WOL) functionality even when the system is in a low-power state.

LED		Status	Description
NIC 1 – JRJ45_	Right	 (Blinking)	Activity detected
		 Off	LAN cable no connects
	Left	Status LED	1G: Orange, 100M: Green, 10M/No connect: Off
NIC 2 – JRJ45_2	Right	 (Blinking)	Activity detected
		 Off	LAN cable does not connect
	Left	Status LED	1G: Orange, 100M: Green, 10M/No connect: Off
PHY 1 – JRJ45_ MGMT1	Right	 (Blinking)	PHY1 activity detected
		 Off	PHY1 is not active, LAN cable does not connect
	Left	Status LED	1G: Orange, 100M: Green, 10M/No connect: Off

4.4.2 Internal LEDs

The internal LEDs provide diagnostic and operational status information for system components.

LED	Status	Description
BMC HEARTBEAT LED	 Green (Blinking)	BMC activity detected
		1. 80Hz: Secure boot failed. (LED 50% on)
		2. 20Hz: Boot passed with ABR (Show about 3s and then exit)
		3. 4Hz: ARM CA7 is reading flash or SRAM
		4. 1Hz: ARM CA7 is reading peripherals
		5. 0.5Hz: ARM CA7 is reading DRAM
		6. 0.2Hz: No ARM CA7 read access cycles
		7. 0.1Hz: No ARM CA7 read access cycles over 6~8s. Stay in mode 8 if there is no ARM CA7 reading access. Exit to mode 4-6 if there is any ARM CA7 reading access
	 Green	BMC is not active
CPLD DEBUG LED	Green/Off	Refer to CPLD LED mapping table
JNGFF1 ACTIVITY LED	 Blue (Blinking)	JNGFF1 activity detected
	Off	JNGFF1 is not active
JNGFF2 ACTIVITY LED	 Blue (Blinking)	JNGFF2 activity detected
	Off	JNGFF2 is not active

4.5 Motherboard Jumpers



Warning

Avoid adjusting jumpers when the system is on, it will damage the motherboard.

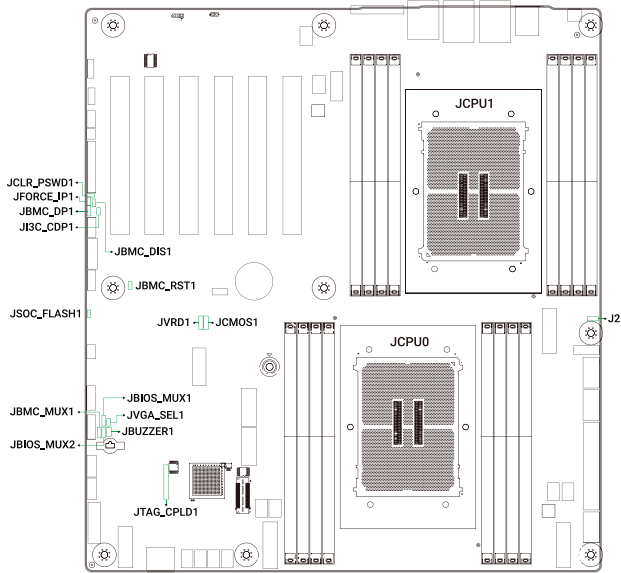


Fig. 6

4.5.1 I3C_CDP Jumper (JI3C_CDP1)

This jumper selects the operating mode for the I3C CDP interface.

Jumper Pins	Configuration	Description
Short	MBP Mode	Default Configuration
Open	I3C CDP Mode	Enables I3C CDP Operation

4.5.2 CMOS Jumper (JCMOS1)

This jumper is used to clear the system CMOS settings and restore BIOS configuration to factory defaults.

Jumper Pins	Configuration	Description
Pin 1-2	Normal	Default operating mode
Pin 2-3	Clear CMOS	Clears CMOS settings

4.5.3 BMC Disable Jumper (JBMC_DIS1)

This jumper controls the boot operation of the BMC ARM processor.

Jumper Pins	Configuration	Description
Short	Disable BMC ARM Boot	Prevents BMC processor boot
Open	Normal	Default operating mode

4.5.4 BMC SOC Flash Jumper (JSOC_FLASH1)

This jumper enables or disables BMC SoC Flash access.

Jumper Pins	Configuration	Description
Short	Enable	Enables BMC SoC Flash configuration
Open	Disable	Default setting

4.5.5 BMC Password Clear Jumper (JCLR_PSWD1)

This jumper is used to clear the BMC administrator password.

Jumper Pins	Configuration	Description
Short	Clear BMC Password	Resets the BMC password
Open	Normal	Default Operating mode

4.5.6 BMC Force IP Jumper (JFORCE_IP1)

This jumper forces the BMC to use a predefined IP configuration.

Jumper Pins	Configuration	Description
Short	BMC Force IP	Forces predefined BMC IP settings
Open	Normal	Default Operating mode

4.5.7 VGA Selection Jumper (JVGA_SEL1)

This jumper determines the VGA output source.

Jumper Pins	Configuration	Description
Short	Rear VGA Connector	Default VGA output
Open	Internal VGA Header	Routes VGA signal to internal header

4.5.8 PMBUS Power Selection Jumper (J2)

This jumper selects the standby power source used by the PMBus interface.

Jumper Pins	Configuration	Description
Pin 1-2	P3V3_AUX	Default standby power source
Pin 2-3	P5V_STBY_PSU	PSU standby power source

4.5.9 CPU SPI Flash Jumper (JBIOS_MUX1 / JBIOS_MUX2)

These jumpers configure the SPI flash route between the CPU and system flash device.

Jumper Pins	Configuration	Description
Pin 1-2	CPU to Flash Bypass	Default Configuration

4.5.10 BMC SPI MUX Jumper (JBMC_MUX1)

This jumper configures the BMC SPI flash routing path.

Jumper Pins	Configuration	Description
Pin 2-3	BMC to Flash Bypass	Default Configuration

4.6 Motherboard Connectors

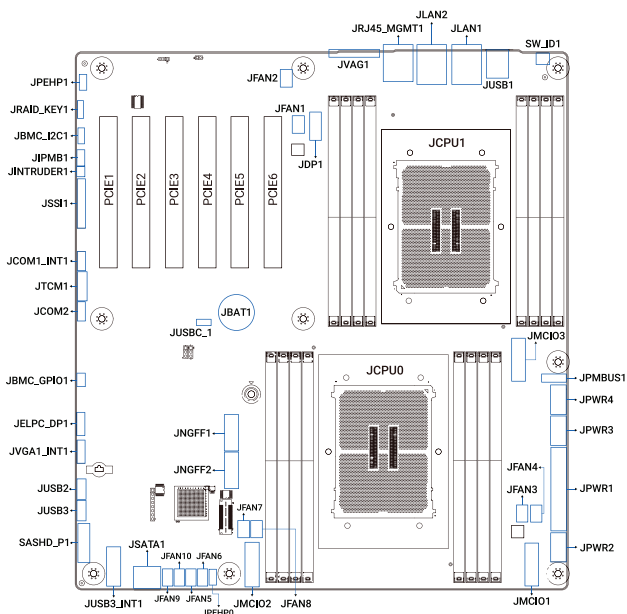


Fig. 7

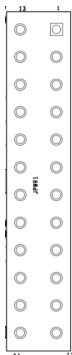
The motherboard provides multiple onboard connectors and headers to support system power, front panel interfaces, peripheral connectivity, and system management functions. The power connectors comply with the ATX power specification.

The primary system power connectors include:

- Main Power Connector: 2 × 12-pin
- CPU Power Connectors: 2 × 4-pin

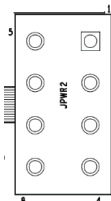
4.6.1 Power Connector (JPWR1)

This connector supplies primary system power to the motherboard in accordance with the ATX power specification.



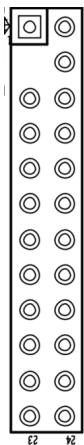
4.6.2 Power Connectors (JPWR2, JPWR3, JPWR4)

These connectors provide additional CPU power input required for stable processor operation and high-performance workloads.



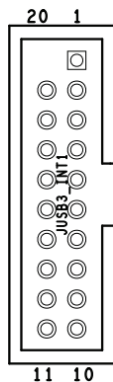
4.6.3 Front Panel Header (JSS11)

A 2 × 12-pin header used to connect the system front panel controls and status indicators, including the power button, reset button, and system status LEDs.



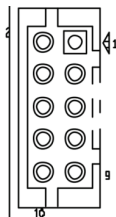
4.6.4 Front I/O USB Header (JUSB3_INT1)

A 19-pin header that provides connectivity for front panel USB 3.0 ports.



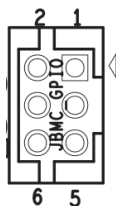
4.6.5 USB 2.0 Headers (JUSB2, JUSB3)

Each connector is a 2 × 5-pin header that supports USB 2.0 interface connectivity for internal devices or front panel USB ports.



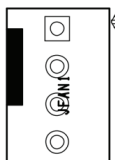
4.6.6 BMC GPIO Header (JBMC_GPIO1)

A 2 × 3-pin header providing BMC I2C16 and General-Purpose Input/Output (GPIO) functionality.



4.6.7 Fan Headers (JFAN1 – JFAN10)

Each fan header is a 4-pin connector used to connect system cooling fans and support PWM fan control and monitoring.



4.6.8 BMC I2C Header (JBMC_I2C1)

A 1 x 4-pin header used to provide BMC I2C10 interface connectivity.



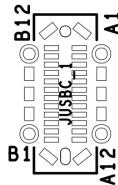
4.6.9 VROC Key Header (JRAID_KEY1)

A 1 x 4-pin header used to connect the Intel VROC hardware key module, enabling advanced RAID features.



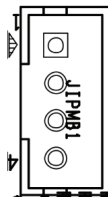
4.6.10 CPU Debug CDP USB Type-C Connector (JUSBC_1)

A USB Type-C connector used to support CPU debug and CDP (Customer Debug Port) functionality.



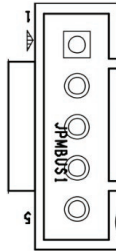
4.6.11 BMC IPMB Header (JIPMB1)

A 1 x 4-pin header that provides BMC I2C14 IPMB interface connectivity for system management communication.



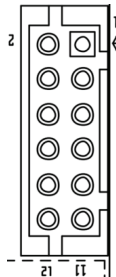
4.6.12 PMBus Header (JPMBUS1)

A 1 × 5-pin header used to support PMBus communication with power management devices.



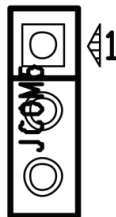
4.6.13 ESPI Debug Port Header (JELPC_DP1)

A 2 × 6-pin header used for eSPI debug port access and system debugging operations.



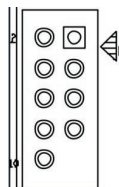
4.6.14 BMC Debug Port Header (JBMC_DP1)

A 1 × 3-pin header used to provide BMC debug interface connectivity.



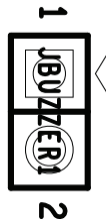
4.6.15 BMC COM Port Headers (JCOM1_INT1, JCOM2)

Each connector is a 2 × 5-pin header that provides BMC serial COM port functionality.



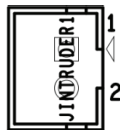
4.6.16 Buzzer Header (JBUZZER1)

A 1 × 2-pin header used to connect a system buzzer for audible system alerts.



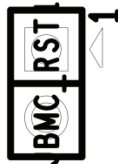
4.6.17 Chassis Intrusion Header (JINTRUDER1)

A 1 × 2-pin header used to connect the chassis intrusion detection switch for system security monitoring.



4.6.18 BMC Reset Header (JBMC_RST1)

A 1 × 2-pin header is used to reset the BMC controller.



4.6.19 CPLD JTAG Header (JTAG_CPLD1)

A 1 × 8-pin header used to provide JTAG interface access for CPLD programming and debugging.



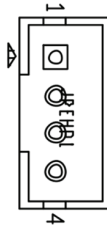
4.6.20 VRM SMB Header (JV RD1)

A 1 × 3-pin header used to provide SMBus communication with the Voltage Regulator Module (VRM).



4.6.21 PCIe Hot-Plug Headers (JPEHP0, JPEHP1)

Each connector is a 1 × 4-pin header used to support PCIe hot-plug functionality.



Warning

Ensure that all power connectors are firmly and properly connected to the power supply to maintain stable motherboard operation.

4.7 Other Connectors & Components

Name	Description	Location
Power Supply	12 x 2 Pin ATX CONN	JPWR1: 12V, 5V, 3.3V, 5VSB
Power Supply	4 x 2 Pin ATX CONN	JPWR2, JPWR3, JPWR4:12V
CPU	GNR-SPLGA4710-2	JCPU0, JCPU1
Front Panel	12 x 2 Pin 2.54mm Box Header	JSS11
Front USB 3.0	10 x 2 Pin 2.0mm Box Header	JUSB3_INT1
USB 2.0	5 x 2 Pin 2.0mm Box Header	JUSB2, JUSB3
BMC GPIO	3 x 2 Pin 2.0mm Box Header	JBMC_GPIO1
FAN CONN	4 x 1 Pin 2.54mm Box Header	JFAN1-JFAN10
Serial ATA	Dual 7 Pin 1.27 mm Headers	JSATA1
BMC I2C	4 x 1 pin 2.0mm Box Header	JBMC_I2C1
VROC Key	4 x 1 Pin 2.0mm Box Header	JRAID_KEY1
CDP CONN	USB type-C CONN	JUSBC_1
XDP CONN	Samtec QSH 60-Pin CONN	JCPU_XDP1
BMC IPMB	4 x 1 Pin 2.0mm Box Header	JIPMB1
PMBUS	5 x 1 Pin 2.54mm Box Header	JPMBUS1
eSPI Debug Port	2 x 6 Pin 2.0mm Box Header	JELPC_DP1
M.2 2280	GEN5_M2_KEY_M_H=8.5MM	JNGFF1, JNGFF2
BMC Debug Port	3 x 1 Pin 2.00mm Box Header	JBMC_DP1
BMC COM Port	2 x 5 Pin 2.0mm Box Header	JCOM1_INT1, JCOM2
CPU DBP Select	2 x 1 Pin 2.0mm Header	J13C_CDP1
BMC Buzzer	2 x 1 Pin 2.54mm Header	JBUZZER1
Intruder	2 x 1 Pin 2.0mm Box Header	JINTRUDER1
Battery Socket	2 Pin Socket	JBAT1
BMC Reset	2 x 1 Pin 2.0mm Header	JBMC_RST1
Program CPLD FW	8 x 1 Pin 2.54mm Header	JTAG_CPLD1
VRM SMB	3 x 1 Pin 2.54mm Header	JVRD1
DIMM Sockets	287 Pin DDR5 DIMM	JEDEC Specified DDR5 Connector: JDIMM0~15
BIOS SPI ROM Socket	SOIC-16Socket	JSPI_BIOS1
BMC SPI ROM Socket	SOIC-16Socket	JSPI_BMC1
DP	Display Port CONN	JDP1
Clear CMOS	3 Pin 2.54mm Header	JCMOS1
BMC Disable	2 x 1 Pin 2.0mm Header	JBMC_DIS1
BMC Socflash Enable	2 x 1 Pin 2.0mm Header	JSOC_FLASH1
BMC Clear Password	2 x 1 Pin 2.0mm Header	JCLR_PSWD1

BMC Force IP	2 x 1 Pin 2.0mm Header	JFORCE_IP1
VGA	2 x 8 Pin 2.0mm Box Header	JVGA_INT1
VGA Select	2 x 1 Pin 2.0mm Header	JVGA_SEL1
PMBUS Select	3 x 1 Pin 2.0mm Header	J2
CPU Bypass	3 x 1 Pin 2.0mm Header	JBIOS_MUX1, JBIOS_MUX2
BMC Through PFR or Bypass	2 x 1 Pin 2.0mm Header	JBMC_MUX1
PCIE SLOT	PCIE5.0 x16 Standard Slot	JPCIE1 – 6
MCIO(PCIE)	MCIOx8 Standard CONN (PCIE GEN5)	JMCIO1 - 3
SLIMLINE(SATA)	Slimline 8i (SFF-8654) CONN	SASHD_P1
PCIE Hot-Plug SMB	4 x 1 pin 2.0mm Box Header	JPEHP0, JPEHP1

5. System Setup & Getting Started



Important

- All information is subject to change without prior notice.
- The system photos provided for demonstration purposes only. The appearance and internal view of your system may vary depending on the model you purchased.

5.1 Necessary Tools



Screwdriver



Pliers



Tweezers



Anti-Static Gloves

Safety Precautions

Follow these precautions when handling the system:

- Place the system on a flat, stable surface.
- Avoid installing the system in areas with moisture, smoke, vibration, excessive dust, salty or greasy air, or corrosive gases.
- Do not drop or jolt the system.
- Use only the supplied power adapter.
- Disconnect the power cord before performing any installation or maintenance.
- Never handle components with wet hands.
- Prevent liquids, chemicals, or foreign objects from entering the system.
- Wear a grounded wrist strap when handling components such as the CPU, memory, hard drive, or expansion cards.
- Place components on a grounded anti-static pad or their original packaging when removed from the system.

5.2 DriveBay



Warning

Before removing or installing any components, make sure the system is not turned on/connected to the power.

5.2.1 Installing 3.5"/2.5" Storage Drive

- Align and insert the two embossed pins on the carrier into the side dimples of the 3.5" drive.
- For a 2.5" drive, align it with the screw holes on the tray and secure it with screws.
- Gently press down the other side of the 3.5" drive until the remaining pins lock into place.
- With the lever open, slide the drive carrier horizontally into the drive bay until it clicks into position.
- Finally, push the lever in to lock the carrier securely.

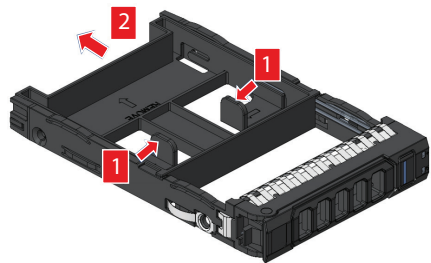
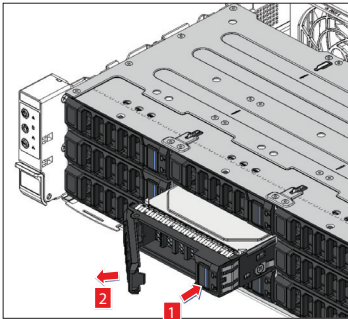


Fig. 8

5.2.2 Installing M.2

- To install the M.2 card, first ensure the card is properly aligned with the M.2 socket on the motherboard. Insert the M.2 card into the connector at a slight angle until it is fully seated.
- Once inserted, gently press the free end of the M.2 card downward toward the standoff until it locks into place with the retention latch.

Removal

- Before removing the M.2 card, ensure that the system is powered off and disconnected from the power source.
- Begin by removing the top cover of the chassis. Refer to Section 2.3 – Top Cover for detailed instructions on removing the chassis cover.
- Locate the M.2 slot on the motherboard and pull the retention latch to release the M.2 card from its locked position. Once the latch is released, the M.2 card will automatically rise slightly from the slot.
- Carefully lift the M.2 card at an angle and remove it from the connector.

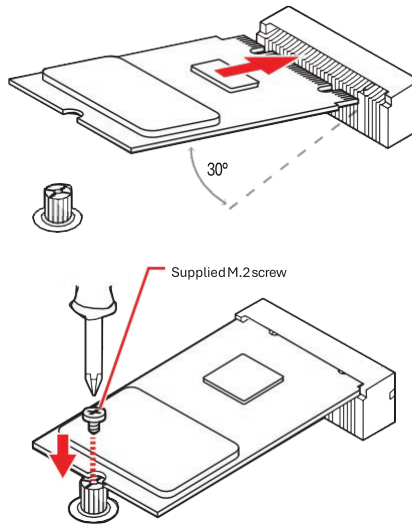


Fig. 9

5.3 System Cover

5.3.1 Removing System Cover

- Press the release tab on top cover.
- Slide the top cover towards the rear of the system barebone.
- Lift the top cover upward to remove.

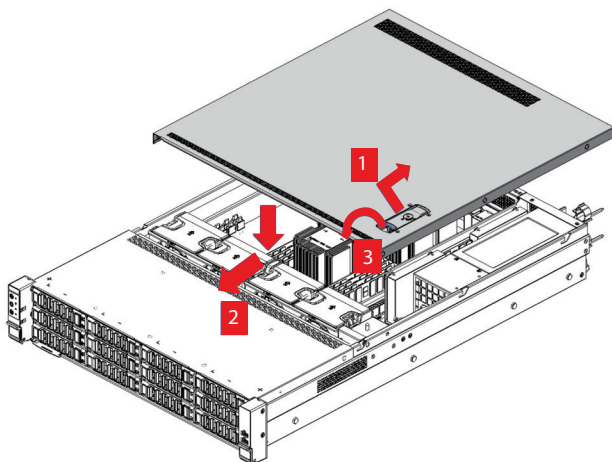


Fig. 10

Front Cover

- Dislodge the screws 2 for each side.
- Slide the top cover towards the rear of the system barebone.
- Lift the top cover upward to remove.

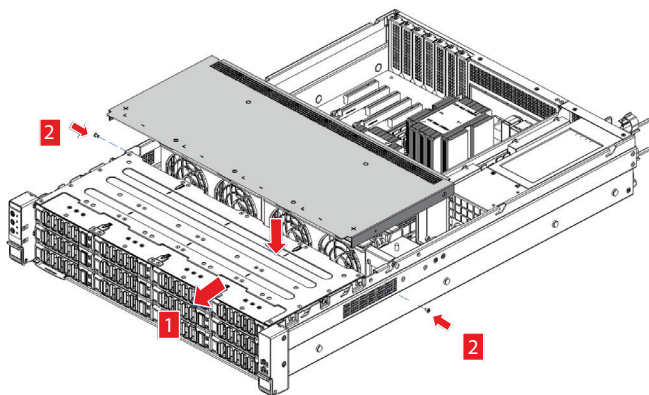


Fig. 11



Important

- Prevent overheating: Ensure the cooling fan functions properly and apply an even layer of thermal paste or tape between the CPU and heatsink.
- Power safety: Always turn off and unplug the power supply before replacing the CPU.
- Handle with care: Avoid touching the CPU socket pins to prevent damage.
- Protect the socket: Keep the plastic cap on the socket when the CPU is not installed.
- Verify CPU status in the BIOS after installation.

5.4 Memory Configuration

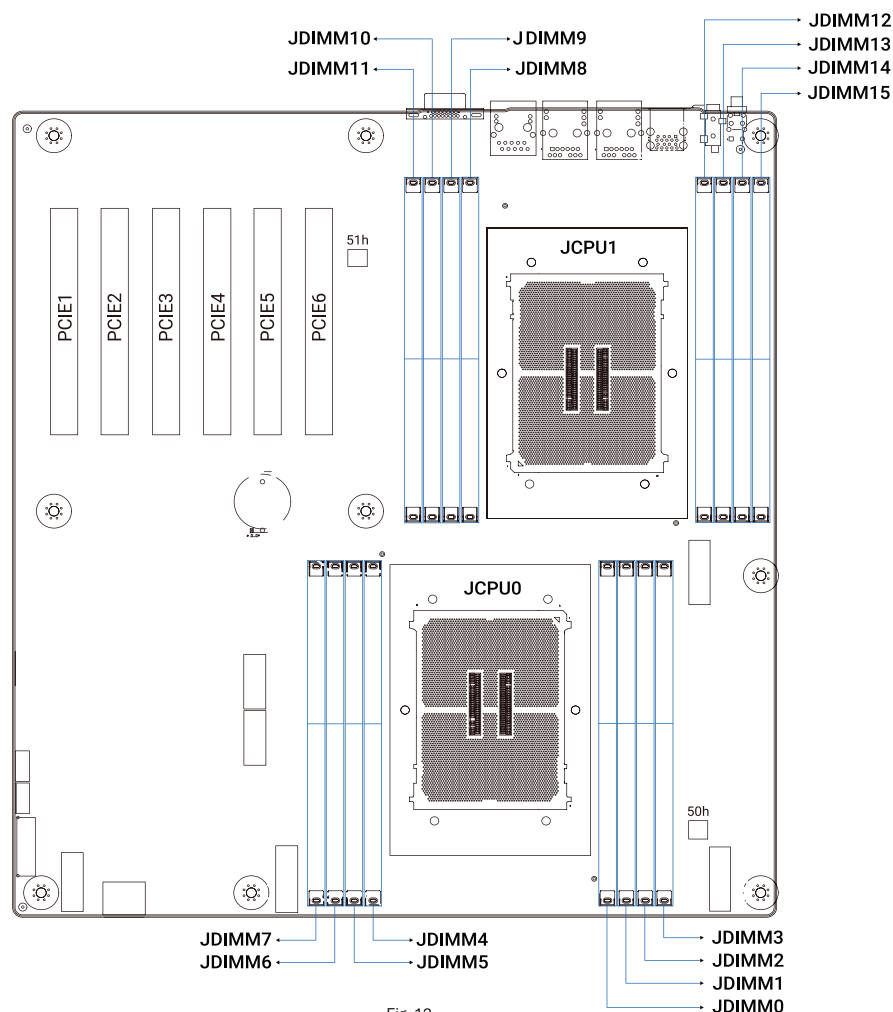
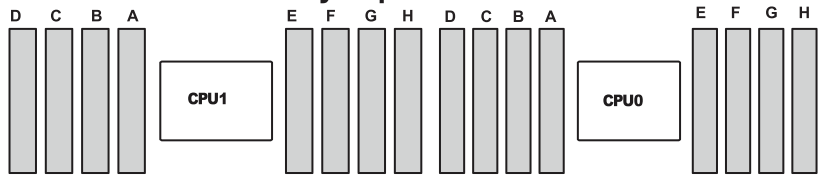


Fig. 12

Recommended Memory Population



1 CPU									
Channel \ Qty. of DDR5	D	C	B	A	C P U 0	E	F	G	H
8	V	V	V	V		V	V	V	V
4		V		V		V		V	
1						V			

2 CPU									
Channel \ Qty. of DDR5	D	C	B	A	C P U 1	E	F	G	H
16	CPU1	V	V	V		V	V	V	V
	CPU0	V	V	V		V	V	V	V
8	CPU1	V		V			V		V
	CPU0	V		V			V		V
8	CPU1		V	V		V		V	
	CPU0		V	V		V		V	
2	CPU1			V					
	CPU0					V			



Warning

There should be at least one DDR5 DIMM populated.

5.5 System Fan

The server has PWM Controlled hot-swappable fans that provide the main airflow to keep the system cool and prevent overheating.

5.5.1 The fan features include:

- Each fan has a tachometer, allowing the BMC to monitor fan speed in real time.
- The BMC firmware automatically adjusts fan speed based on system temperature for stable performance.
- A fault LED on each fan lights red if the fan fails, making it easy to identify issues.
- All fans are installed in a removable fan cage, allowing easy access for cable routing, maintenance, and upgrades.

5.5.2 Installing 2U Fan

- Align the connectors and press the fan release tabs.
- Press the buckle (marked in blue as demonstrated) and hold the fan module on both side.
- Release the tabs to lock the fan in place.

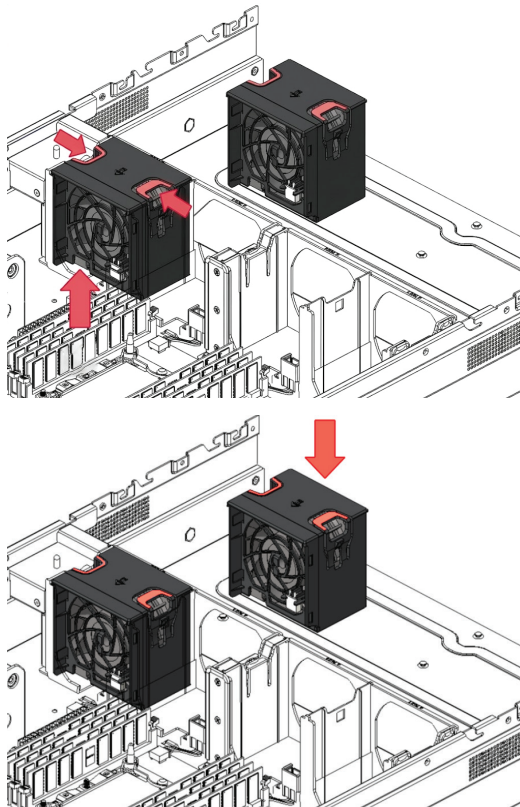


Fig. 13

5.6 CPU & Heatsink Installation



Important

- Use proper ESD protection during CPU installation.
- Power off the system and unplug the power cord before installing the CPU.
- Do not touch the CPU socket pins.
- Always install the protective socket cap when the CPU is not present.
- Apply an even layer of thermal paste or thermal pad between the CPU and heatsink.
- Ensure the CPU heatsink and cooling fan are correctly installed and operational to prevent overheating.
- Follow the CPU cooler manufacturer's installation instructions.
- Check CPU status in BIOS after installation.

CPU Installation Procedure

A standard processor assembly consists of the following five components:

1. Processor Carrier
2. Processor
3. Bolster Plate Assembly
4. Socket (LGA 4710)
5. Back Plate

Additional components involved in the assembly include:

- Heatsink
- Dust Cover

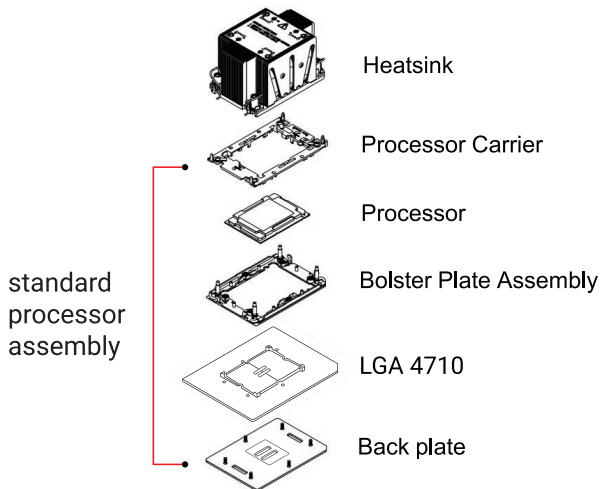


Fig. 14



Important

Images are for demonstration purpose only. Actual parts may vary.

CPU Carrier assembly

- Begin by placing the processor carrier on top of the processor while it is still positioned in the package tray. During placement, ensure that the Pin-1 indicator on the processor carrier is aligned with the Pin-1 marking on the processor package.
- After alignment, press down on the sides of the carrier using both hands. Place the thumbs on the sides opposite the TIM break lever and apply gentle downward pressure while slightly pushing outward. Continue pressing until a distinct clicking sound is heard, indicating that the side snaps have engaged and the processor is secured within the carrier.
- Once the processor is secured, align the Pin-1 indicator on the processor carrier with the corresponding corner cutout on the heatsink. Some heatsinks may contain two corner cutouts; in such cases either orientation can be used.
- The heatsink can then be positioned on top of the processor carrier. While placing the heatsink, ensure that the latching features of the carrier align correctly with the heatsink attachment points. Apply firm downward pressure on the heatsink so that the carrier latching mechanisms engage with the heatsink at all four corners.
- Proper assembly should be verified by checking that the Pin-1 indicators on the processor and processor carrier remain aligned. Additionally, inspect all four carrier snaps to confirm that they are fully clipped onto the processor package substrate. The carrier should be securely attached to the heatsink at all four corners.

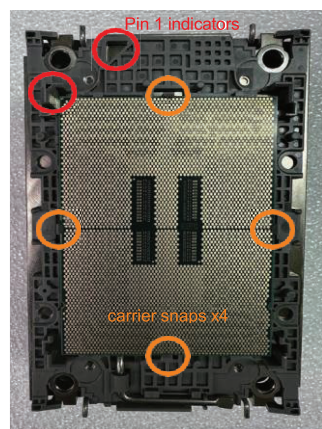
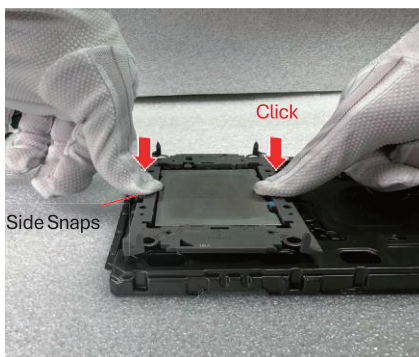


Fig. 15

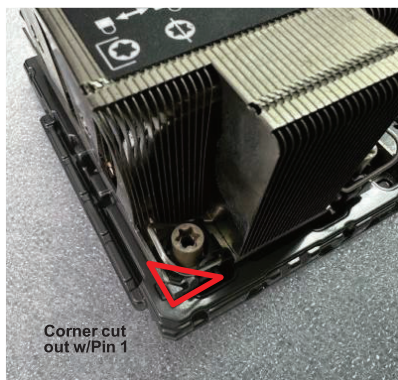
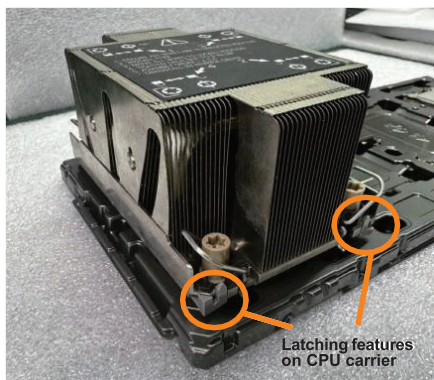


Fig.15(a)

Warning

Ensure that all carrier snaps are properly engaged. An improperly secured carrier may result in poor mechanical contact or processor misalignment.

PHM Assembly to socket

- Before installing the processor assembly, the socket protective cover must be removed from the motherboard. Hold the finger grips on the socket cover and press inward on the grip tabs. The cover can then be lifted vertically and removed from the socket.
- The processor-carrier-heatsink module (PHM) should then be aligned with the socket by matching the Pin-1 indicator on the processor carrier with the Pin-1 mark on the motherboard PCB silkscreen. It is important to note that, depending on the PCB silkscreen markings, CPU0 and CPU1 may require installation in opposite orientations.
- The PHM should be held horizontally with both hands and carefully lowered vertically onto the socket until it engages with the alignment pins on the bolster plate assembly. Once positioned, verify that the module is sitting evenly and horizontally on the bolster plate. The anti-tilt wires should then be set to the locked (outward) position to stabilize the module during fastening.
- The heatsink is secured using a T-30 torque driver. Tighten the nuts located at the four corners of the heatsink following the sequence 1 → 2 → 3 → 4 to ensure even pressure distribution across the processor package.

Warning

Avoid touching the socket contacts after removing the protective cover, as this may damage the delicate pins.

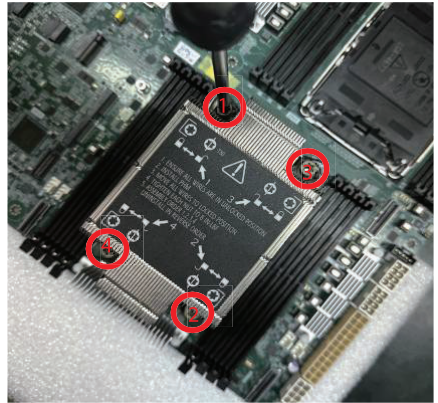
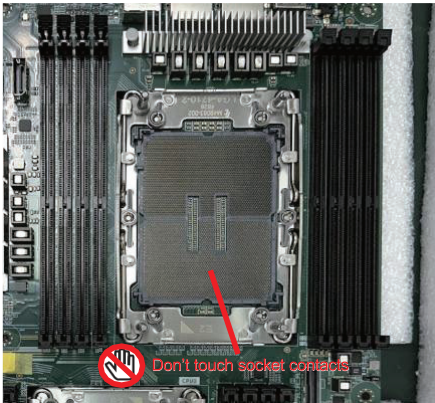
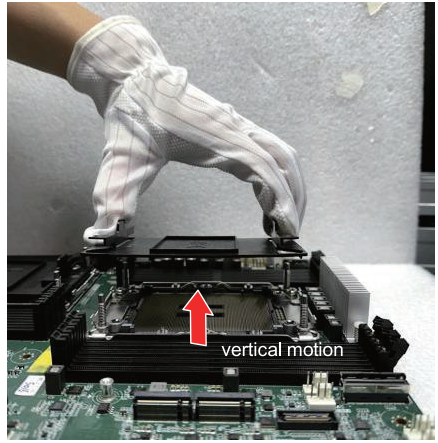
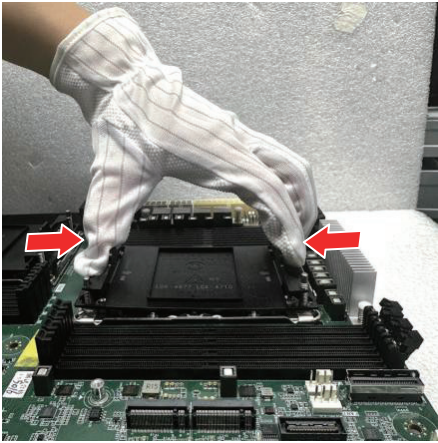


Fig16

Warning

Always follow the specified tightening sequence to prevent uneven pressure that may damage the processor or socket.

6. Power Supply Unit (PSU)

The server supports two hot-swappable power supplies, which can be inserted or removed from the rear of the system without tools.



Important

1. Both power supplies must be identical, and both power cords must be connected.
2. Failing to connect both power supplies could result in CPU throttling.

Installing PSU

1. Remove the PSU blank cover.
2. Slide the PSU into the chassis bay until the release latch clicks into place.
3. Connect the power cable to the PSU outlet.

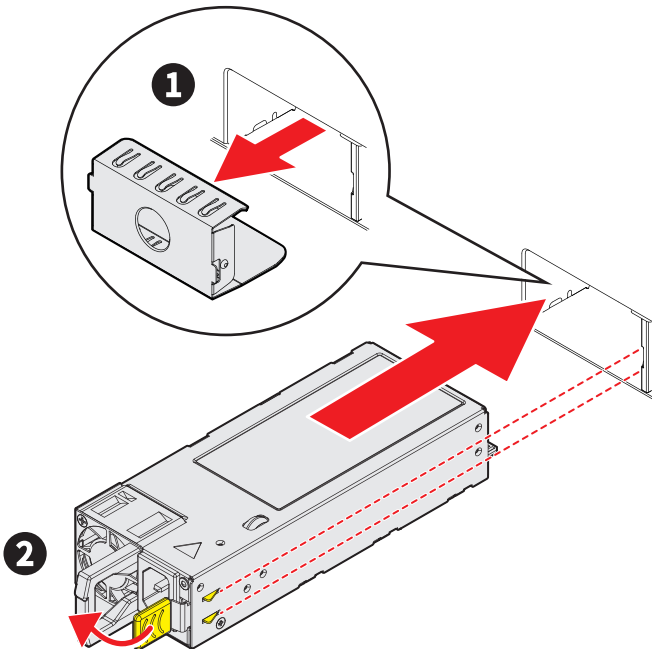


Fig. 17

7. Slide Rail



Important

The illustrations are provided for demonstrative purposes only. The appearance of the system may differ based on the model you have purchased.

7.1 Installing Inner Rail

1. Connect the guide rails to both sides of the cabinet.
2. Pull open the front clamping slot of the slide rail.
3. Slide the rail forward until the boss fits into the cabinet hole.
4. Insert the slide rail boss from the inside out into the cabinet slot and secure it with the locking hook.

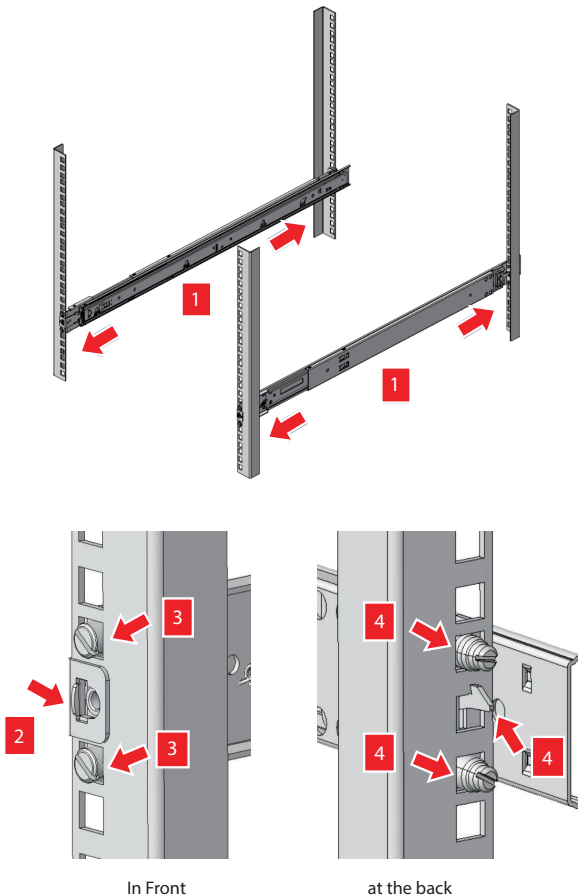


Fig. 18

7.2 Retracting Outer Rail Bracket

Pull the latch upward and slide the middle rail backward until it is fully retracted into the outer rail bracket.



Fig. 19

7.3 Installing System into Rack

7.3.1 Extend the middle rails

- Pull the middle rails out from both sides of the rack until they are fully extended.
- Make sure the ball bearing retainers are locked in the forward position to hold the rails steady during installation.

7.3.2 Engage the inner rails

- Align the inner rails (attached to the chassis) with the middle rails on the rack.
- Carefully slide the chassis forward along the rails until it stops at the end of the travel range.

7.3.3 Insert the chassis into the rack

- While supporting the chassis, press the two-way release tabs (on both sides) forward or backward to allow the chassis to slide further into the rack.
- Gently push the chassis all the way in until it is seated properly.

7.3.4 Secure the chassis

- Once aligned, tighten the mounting screws on both sides to secure the chassis firmly in place.

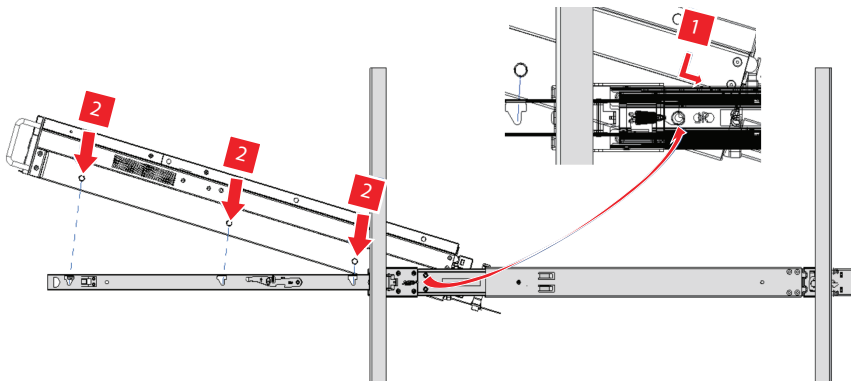


Fig. 20

7.4 Removing System from Rack

- Pull out the handles on both sides of the case, as shown in the figure.
- Loosen the illustrated screw.
- Firmly grip both handles and extract the server from the cabinet.

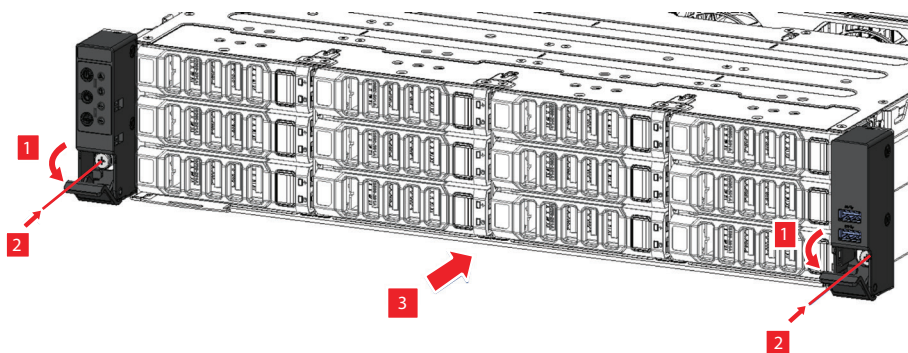


Fig. 21

7.5 Detaching Outer Rail Bracket from Rack Frame

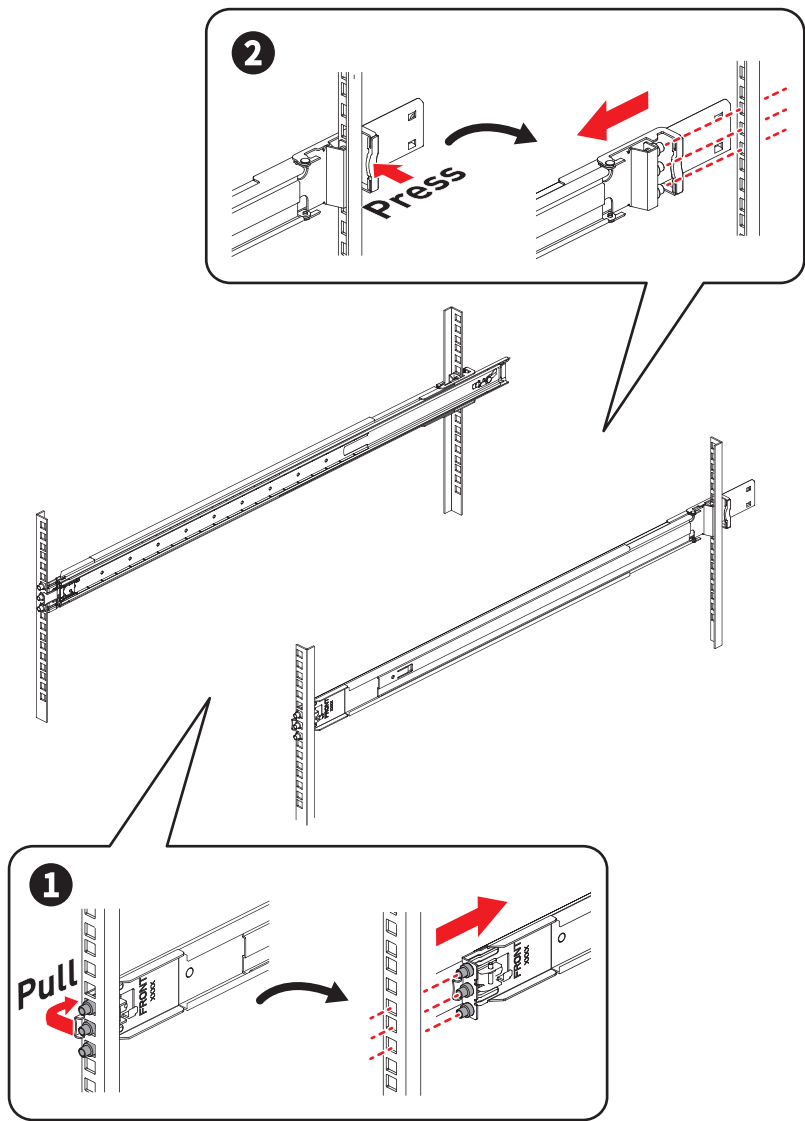


Fig. 22

8. Service & support & Technical Support

For any assistance related to the product, and if no solution can be obtained from the user's manual, please contact your place of purchase or local distributor. Alternatively, please talk to our Netweb Expert-

Our Netweb Experts have the expertise to assist you with any inquiries you may have about our products and solutions.

Tel: +91 11 4324 0000

Fax: +91 11 4324 0000

Email: Supportdel@netwebindia.com

Website: [Contact Us – Netweb Technologies](#)

OUR FOOTPRINTS



Tyrone

Contact Us



facebook.com/**tyronesystems**

twitter.com/**tyronesystems**

linkedin.com/company/**tyrone-systems**

Support Inquiries

Email: tyronecare@tyronesystems.com