



Netweb Technologies India Ltd.

Tyrone[®]

USER GUIDE

MDI300A3R-212

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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

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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:

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

3. System Specifications

Category	Specification
System overview	Form factor: 2U Dimension: 448 mm (W) × 87 mm (H) × 764 mm (D) Motherboard: MB12XM
Processor system	Supports Intel Xeon 6500/6700 "Sierra Forest" or "Granite Rapids", Dual socket LGA 4710 (E2), Up to 350W TDP Chipset- SOC
Memory	32 × DDR5 DIMM, 16-channel (2DPC), Supports DDR5 288-pin RDIMM/RDIMM-3DS/MCRDIMM Max. Capacity: 256 GB per DIMM Max. DIMM Frequency: RDIMM/RDIMM-3DS up to 6400 MT/s (1DPC), 5200MT/s (2DPC), MCRDIMM up to 8000MT/s (1DPC Only)
PCIe Expansion Slot	1x DW/ FHFL PCIe 5.0 x16 slot, (CPU1) supporting up to 400W PCIe cards/Passive GPUs 1x DW/ FHFL PCIe 5.0 x16 slot, (CPU0) 1x SW/ FHFL PCIe 5.0 x16 slots, (CPU1) 1x SW/ FHFL PCIe 5.0 x16 slots, (CPU1) 1x FHHL PCIe 5.0 x16 Slots, (CPU1) 1x FHHL PCIe 5.0 x16 Slots, (CPU0)
Storage	12x Hot-swap 3.5"/2.5" drive bays SAS/SATA/NVMe 5.0 (Front) 2x 2280/22110 PCIe 5.0 x2 NVMe M.2 ports (CPU0)(Onboard) 2x Hot-swap PCIe 5.0 x 4 E1.S 9mm NVMe ports (CPU1)(Rear) ⚠ Important: HBA/RAID card required for SAS support
Front panel	Button: Power w/ LED, Reset, UID LEDs: 4x Status LEDs (M.2/ Alarm/ 2 x LANs) I/O port: 1x USB 2.0 Type A, 1x USB 3.0 Type A
Rear I/O	Button: UID LED Button I/O port: 1x COM port, 1x Mini-DP port, 1x USB 2.0 Gen 1, 1x Dedicated IPMI (BMC), 1x OCP 3.0
Power Supply	1+1 1600W CRPS (Default) 1+1 2000W CRPS (Optional) Efficiency: 80+ Titanium
Server	BMC Controller: ASPEED AST2600

Category	Specification
Management	1 × 1000Base-T Dedicated Server Management Port Dual BIOS and BMC, (1) MicroSD card slot for BMC log
Environmental	10°C~35°C operating -40°C~70°C non-operating 20%~90% non-condensing
Security	TPM 2.0 Hardware Root-of-Trust module Chassis Intrusion

4. System Overview



Fig. 1

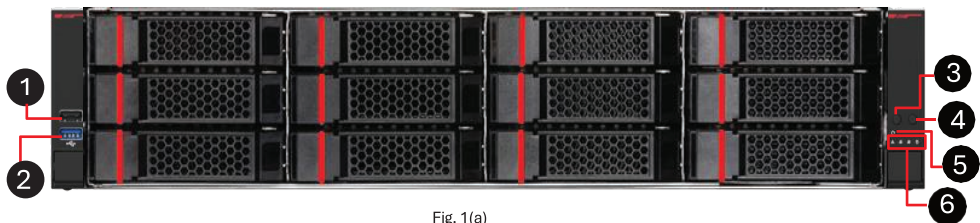


Fig. 1(a)

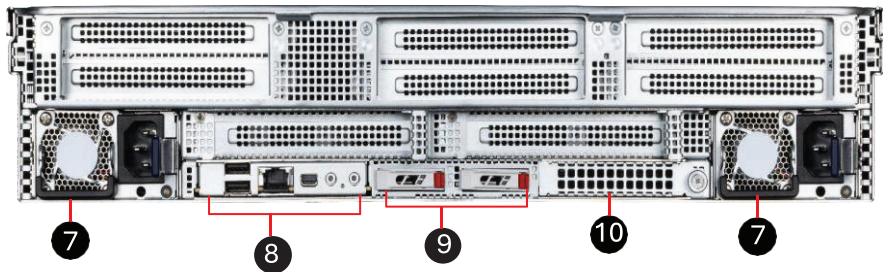
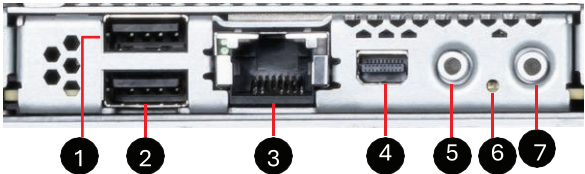


Fig. 1(b)

Number	Name
1	USB 2.0 Type-A Port
	This connector is provided for USB peripheral devices. (Speed up to 480 Mbps)
2	⚠ 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.
	Front view: USB 3.0 Type-A Port
3	🔌 System Power Button/ LED
4	UID Button/ LED
5	↺ System Reset Button
6	⚠ System Alarm LED
	 LAN Activity LEDs
	 M.2 Activity LED
7	Power Supply Unit
8	MGT1: DC-SCM Module Please refer to the following section for more details
9	2 x Hot-swap E1. S
10	OCP 3.0 Mezzanine card Slot

MGT1: DC-SCM Module I/O Panel



Number	Name
1	COM USB Type-A Port This port allows for serial data transmission over a USB connection, enabling remote or direct console access.
2	USB 2.0 Type-A Port This port is provided for USB peripheral devices. (Speed up to 480 Mbps)
	⚠ 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.
3	1000Base-T Ethernet Port (for mgmt.) The standard RJ45 LAN jack is provided for connection to the Local Area Network (LAN). You can connect a network cable to it.
4	Mini-DisplayPort This port is a compact version of DisplayPort, used for connecting displays. With an appropriate adapter, it supports connections to VGA, DVI, or HDMI displays.
5	UID LED Button (default) & System Reset Button*
6	System Status LED
7	System Power LED Button

4.1 System Storage Topology



Fig. 2

Configurable SAS/SATA/NVMe



Fig. 2(a)

4.2 System LED Indicators

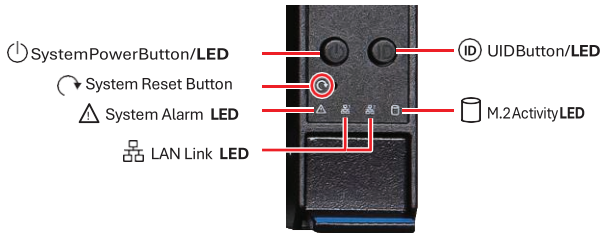


Fig. 3

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
		System power is on ACPI S4, S5 state
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

4.3 Motherboard Layout

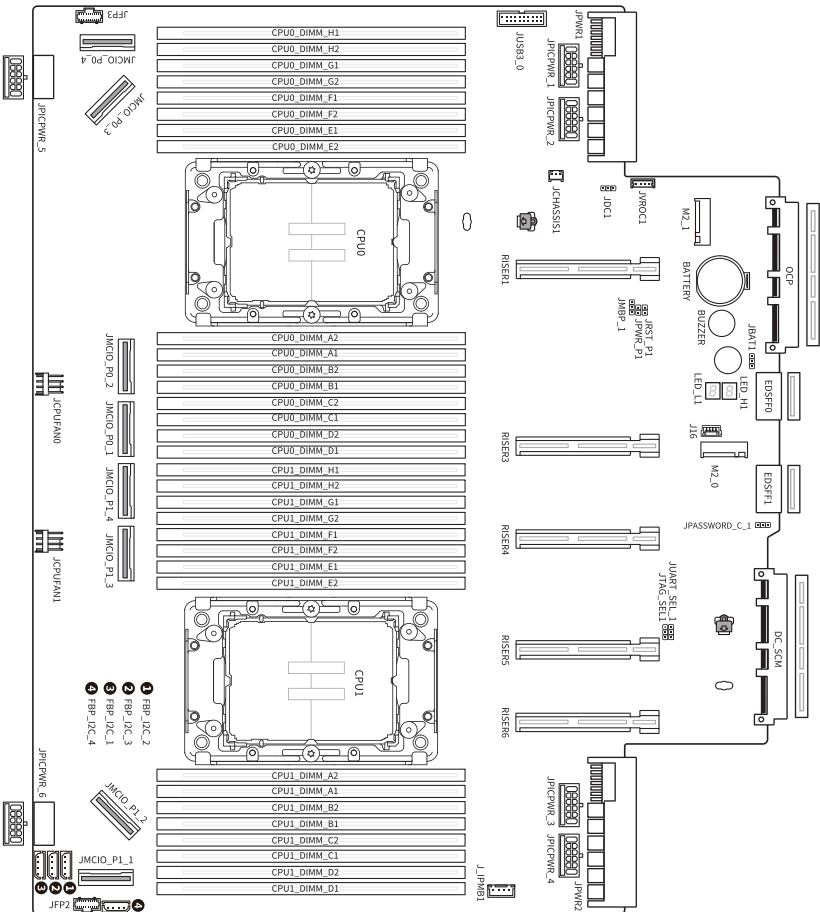


Fig. 4

MGT1 DC-SCM Module

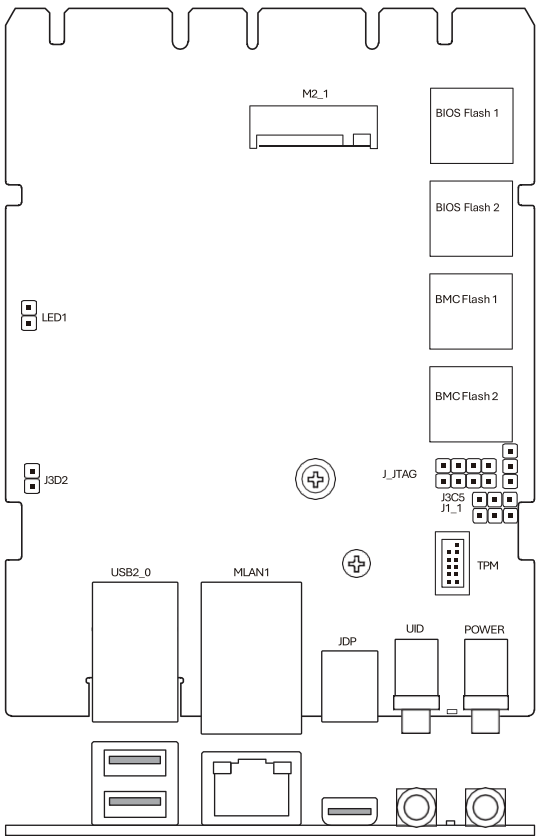
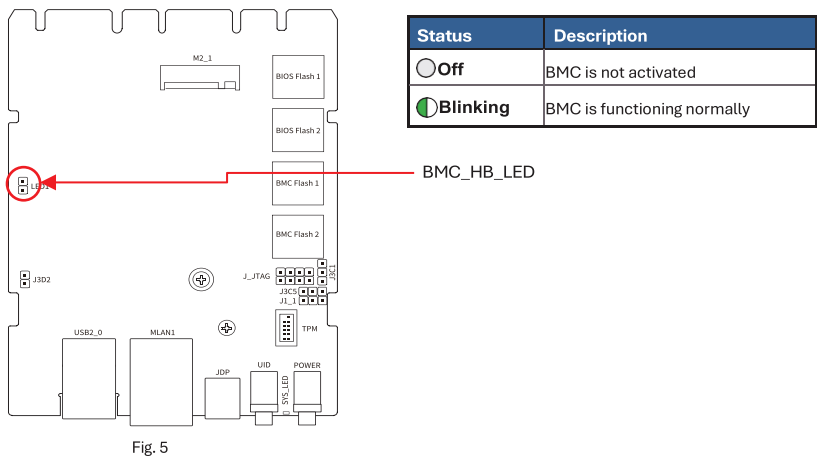


Fig. 4(a)

4.4 System Board LEDs

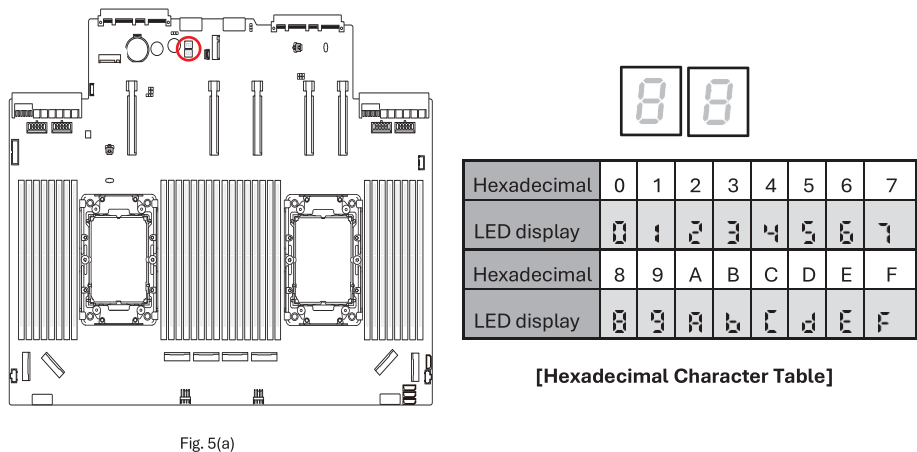
4.4.1 BMC_HB_LED: BMC Heartbeat LED (on MGT1)

This LED indicates the BMC (Baseboard Management Controller) status.



4.4.2 LED_H1, LED_L1: Port 80 Debug LEDs

The Port 80 Debug LEDs display progress and error codes during and after POST (Power-On Self-Test).

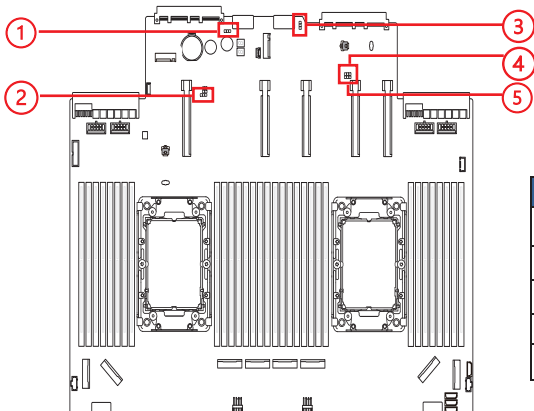


4.5 Motherboard Jumpers



Important

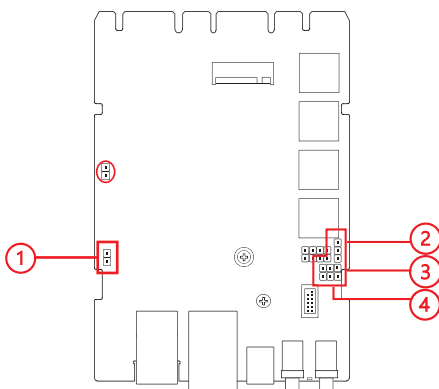
Avoid adjusting jumpers when the system is on, it will damage the motherboard.



Number	Jumper Name
1	JBAT1
2	JMBP_1
3	JPASSWORD_C_1
4	JUART_SEL_1
5	JTAG_SEL_1

Fig. 6

MGT1 DC-SCM Module Jumpers



Number	Jumper Name
1	J3D2
2	J3C1
3	J3C5
4	J1_1

Fig. 6(a)

4.6 Motherboard Connectors

4.6.1 Storage Connectors

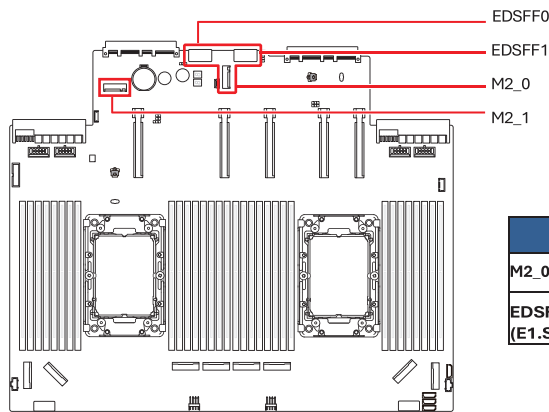


Fig. 7

Name	Description
M2_0~1	PCIe 5.0 x2, 32 GT/s
EDSFF0~1 (E1.S)	PCIe 5.0 x4, 32 GT/s

4.6.2 Expansions

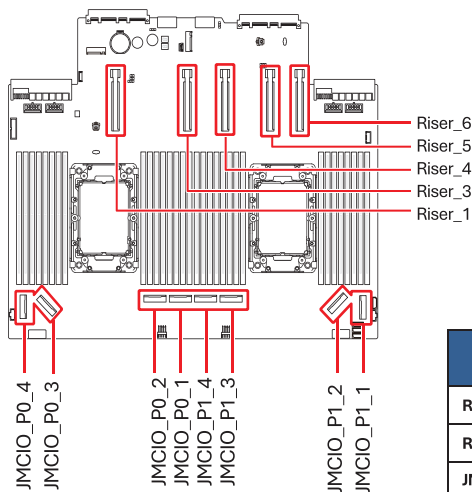


Fig. 8

Name	Description
RISER1,3	PCIe 5.0 x16, 32 GT/s (from CPU0)
RISER4~6	PCIe 5.0 x16, 32 GT/s (from CPU1)
JMCIO_P0_1~4	PCIe 5.0 x8, 32 GT/s (from CPU0)
JMCIO_P1_1~4	PCIe 5.0 x8, 32 GT/s (from CPU1)

4.6.3 Power Connectors

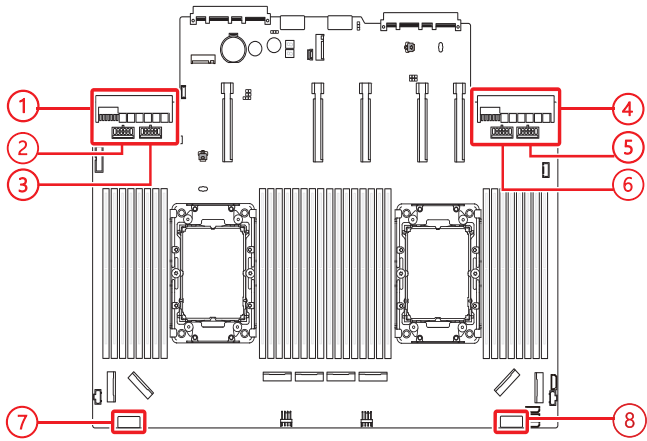
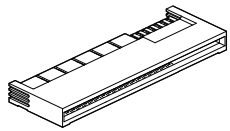


Fig. 9

Number	Name
1	JPWR1
2	JPICPWR_1
3	JPICPWR_2
4	JPWR2
5	JPICPWR_4
6	JPICPWR_3
7	JPICPWR_5
8	JPICPWR_6

JPWR1~2: CRPS/ M-CRPS Power Connectors

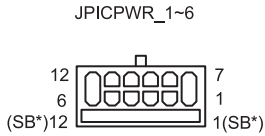


These connectors are designed to support both CRPS (Common Redundant Power Supply) and M-CRPS (Modular CRPS) compliant power supply units with a size of 185 × 73.5 mm. They enable the connection of compatible redundant power modules to provide reliable power to the system.

To install the power supply, align the connector plug with the socket, ensuring the orientation and pins match correctly. Once aligned, insert the module firmly until it is fully seated and

securely connected.

JPICPWR_1~6: 12-Pin PICPWR Power Connectors



The PICPWR (Platform Infrastructure Connectivity Power) connectors provide power and sideband signal management from the HPM (Host Processor Module) to system peripherals. These connectors are used to support various components, including GPUs (JPICPWR_1–JPICPWR_4), the storage backplane (JPICPWR_5), and the fan board (JPICPWR_6). Ensure that each cable is properly aligned with the connector before insertion and press firmly until the connection is fully seated to guarantee stable power delivery and signal communication.

SB: It refers to sideband signals.

SB3 and SB4: The sideband signals SB3 & SB4 are active only on the JPICPWR_5 connector. For JPICPWR_1, JPICPWR_2, JPICPWR_3, JPICPWR_4, and JPICPWR_6, these pins are not connected (NC) and have no functional role.



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

4.6.4 Cooling Connectors

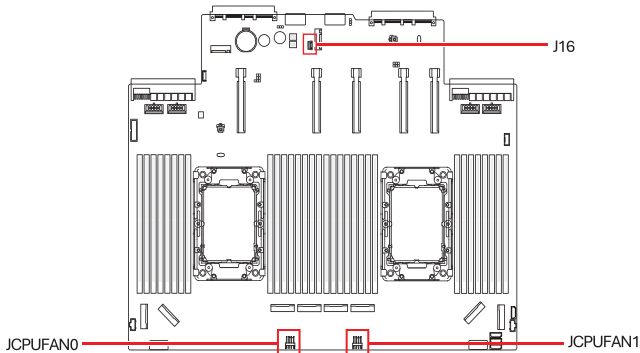
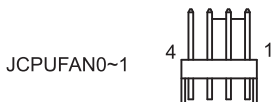


Fig. 10

JCPUFAN0~1: 4-Pin Fan Connectors



These connectors are designed to connect 4-pin CPU cooling fans that operate on a +12V DC power supply. They provide power and control signals required for proper fan operation during debugging or service procedures.

When attaching a fan cable, ensure the wiring is correctly aligned:

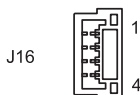
Red wire → Connect to the +12V power pin.

Black wire → Connect to the GND (Ground) pin.

Important

- **Incorrect wiring may cause fan malfunction or damage to the motherboard.**
- **These connectors are intended for debugging purposes only and should not be used for regular system operation unless specified by service instructions.**

J16: Liquid Leak Detection Connector



The J16 connector is used to interface with a liquid leak detection sensor in systems equipped with a CPU liquid cooling solution. It enables the motherboard to monitor the presence of any coolant or water leakage from the cooling pump or tubing.

When a leak is detected, the sensor sends a signal through this connector to the system, triggering an automatic system shutdown to help prevent electrical damage and protect critical components.

4.6.5 USB Connectors

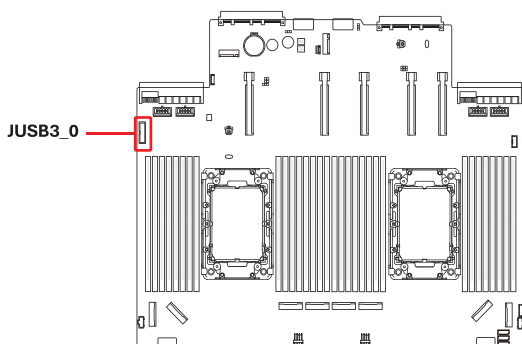
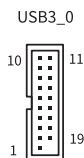


Fig. 11

USB3_0: USB 3.0 Gen1 connector



The USB3_0 connector is an internal USB header used to connect front-panel or internal USB ports, enabling attachment of USB devices such as keyboards, mice, flash drives, and other USB-compatible peripherals.

This connector supports the USB 3.0 Gen 1 standard, providing:

- Data transfer rates up to 5 Gbps for high-speed devices.
- Backward compatibility with USB 2.0 devices, operating at up to 480 Mbps when older devices are connected.

4.7 Other Connectors & Components

4.7.1 JFP2~3: DC-MHS Control Panel Header

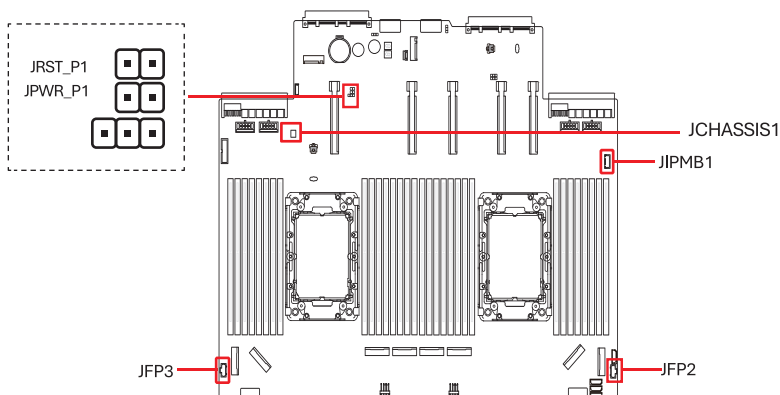


Fig. 12

The DC-MHS control panel header for M-PESTI connects the HPM to the server's front panel, enabling essential controls such as power, LED indicators, buttons, and sideband signals for management and monitoring.

- DC-MHS (Data Center Modular Hardware System) is a modular framework for data center hardware, promoting interoperability across components.
- M-PESTI (Modular Hardware System Peripheral Sideband Tunneling Interface) standardizes communication for peripheral components, allowing automatic discovery and configuration.
- HPM (Host Processor Module) is the main processing module in a server, responsible for managing power, control signals, and peripheral interfaces.

JRST_P1: Reset Button Header



This header is provided to connect the system reset button.

JPWR_P1: Power Button Header



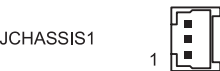
This header is provided to connect the system power button.

J_IPMB1: IPMB Header



This header is used to connect the Intelligent Platform Management Bus.

JCHASSIS1: Chassis Intrusion Header



The JCHASSIS1 header is used to connect a chassis intrusion switch cable that monitors the physical security of the server enclosure. It detects when the server chassis is opened or tampered with, helping protect the system from unauthorized access.

Ensure the intrusion switch cable is securely connected to JCHASSIS1 for reliable detection.

4.7.2 System Control and Monitoring Connectors

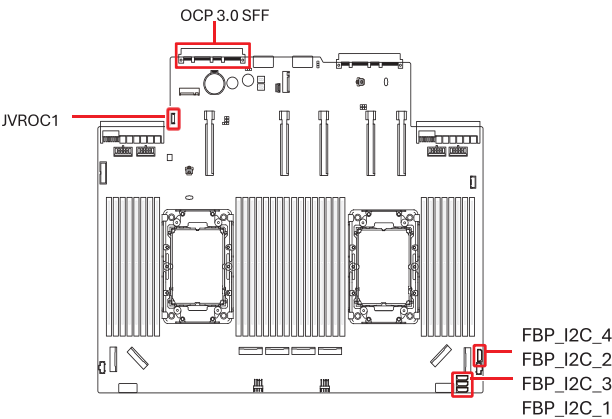


Fig. 13

JVROC1: VROC Connector



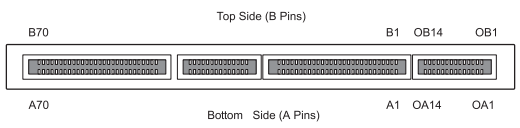
Intel Virtual RAID on CPU (Intel VROC) is a hybrid RAID solution specifically designed for NVMe SSDs connected directly to the CPU.

FBP_I2C_1~4: I2C Headers



I²C (Inter-Integrated Circuit) headers connect to the System Management Bus (SMBus), FBP_I2C_1~3 are for the hot-swap backplane; FBP_I2C_4 is for thermal functions.

OCP0: OCP 3.0 Mezzanine Slot



The OCP0 slot is an OCP (Open Compute Project) 3.0 mezzanine expansion slot designed to support high-performance network interface cards (NICs) and other compatible expansion modules. It allows flexible deployment of additional I/O and networking capabilities without occupying standard PCIe slots.

4.7.3 DC-SCM: DC-SCM 2.0 Edge Slot

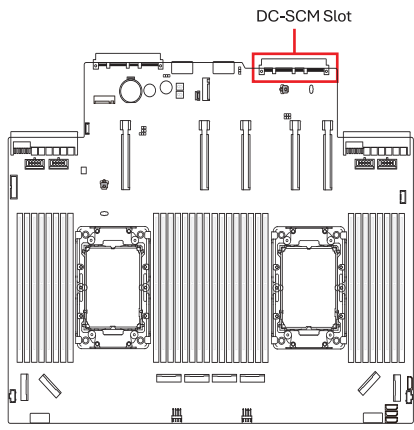


Fig. 14

The DC_SCM slot is a dedicated interface for installing a DC-SCM 2.0 (Datacenter Secure Control Module). This module connects directly to the motherboard through the PCIe 5.0 x1 link from CPU0, providing a high-speed and reliable communication path for system control and management functions.

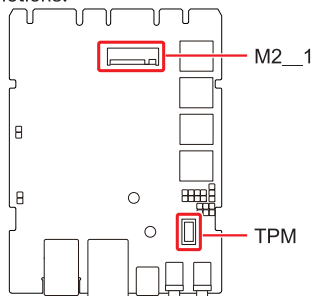
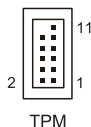


Fig. 15

TPM: SPI TPM Header (for TPM20-IRS) (on MGT1)



The TPM header provides an interface for connecting an optional SPI-based Trusted

J_JTAG: Manual Programming Header (on MGT1)

J_JTAG and J3C5 are used to manually debug and update CPLD firmware with programming tool.

Platform Module (TPM), such as the TPM20-IRS module, to enhance system security. This header is located on the MGT1 management area of the motherboard.

M2_1: M.2 Slot (M key for ROT1) (on MGT1)

The M2_1 connector is an M.2 slot with M Key located on the MGT1 management area of the motherboard. This slot is dedicated to installing a Root-of-Trust (RoT) module, which provides a hardware-based foundation for platform security.



Important

- This slot is not intended for SSD storage; install only supported RoT security modules.
- Use only RoT modules approved for this server model.
- Always power off the system and disconnect power before installation.
- Ensure the module is properly secured with the mounting screw.

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

Important

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.

Screws for 2.5" Drive* Screw
Type: M3 Screw Hat Diameter:
4.5mm*0.65mm
Length: 3.5mm

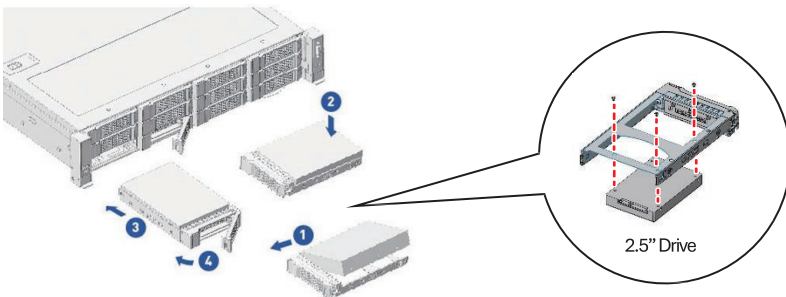


Fig. 16

5.3 System Cover

5.3.1 Removing System Cover

- Remove the screws securing the system on both sides.
- To remove the top cover panels, press down on the release latches on both sides and then slide them to the front or back side of the system.

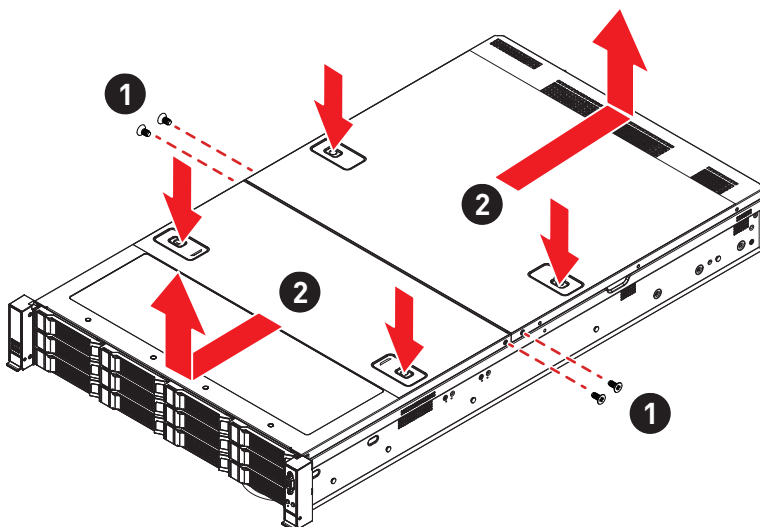


Fig. 17

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.

5.3.2 Installing DC-SCM Module

Follow the steps below:

- Align the DC-SCM module with the rail and carefully slide it inward.
- Push until the module is connected to the connector on the system board.
- Secure the DC-SCM module with the stoppers on both sides of the rail.

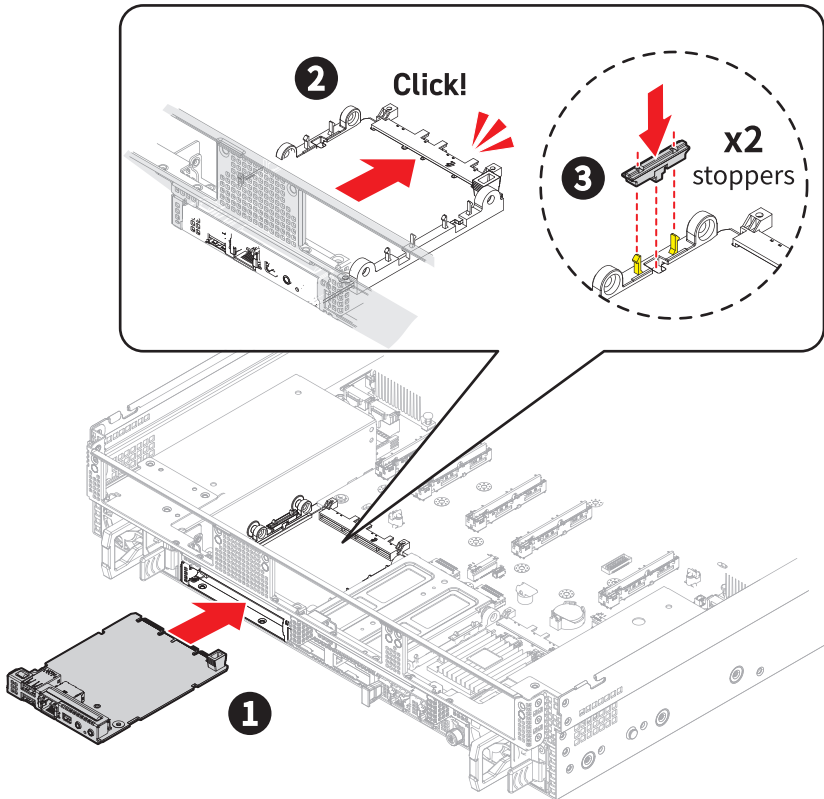


Fig. 18

5.3.3 Removing DC-SCM Module

- Before removing the DC-SCM module, remove the rear system cover and riser brackets. Then follow these steps:
- Press the card slot hooks inward, then use tweezers to carefully remove the rubber stoppers on both sides of the rail.
- To prevent damage to the module components, apply outward force at the designated force points simultaneously, as indicated by the red dashed circles in the diagram.
- Slide the DC-SCM module outward along the rail and remove it from the system.

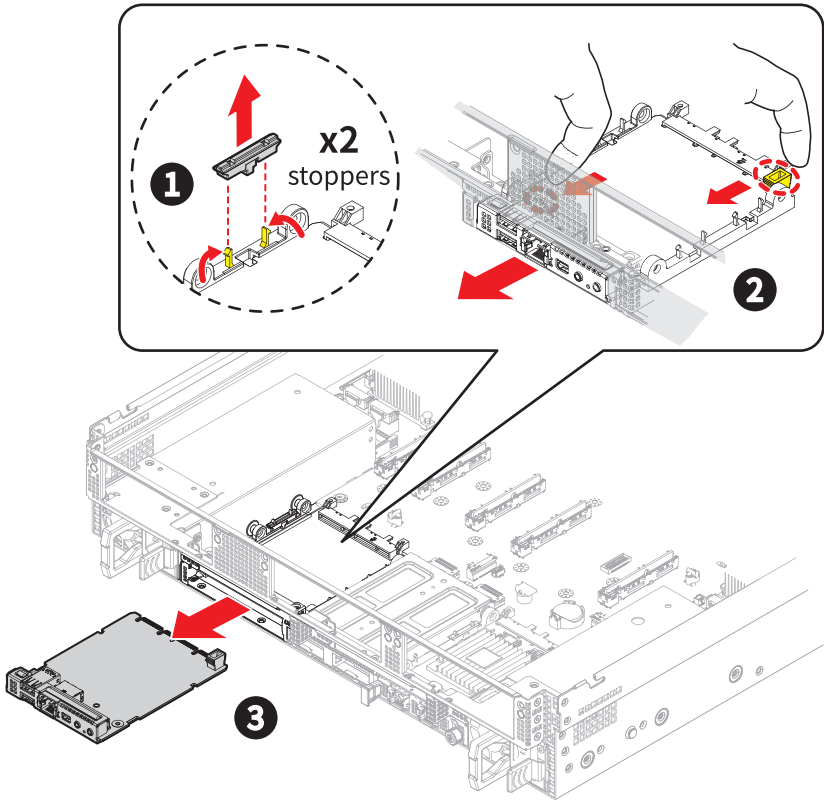


Fig. 19

5.3.4 Installing ROT1 Module (on the DC-SCM Module)

1. Insert your ROT1 module into the M.2 slot at a 15-degree angle.
2. Secure the ROT1 module in place with the supplied M.2 screw.

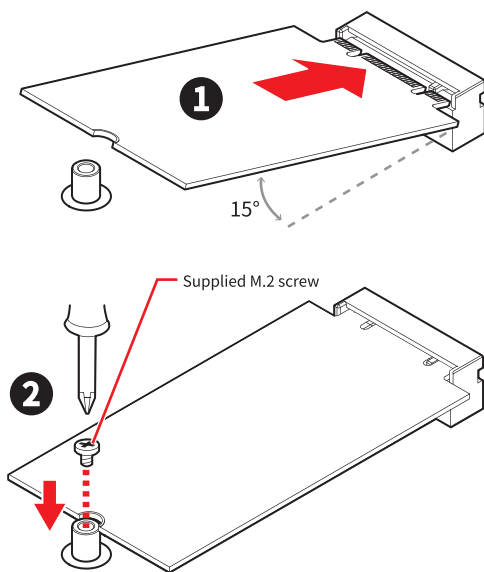


Fig. 20

5.3.5 Installing TPM Module (on the DC-SCM Module)

1. Place the TPM module onto the SPI TPM header, ensuring proper seating and alignment.
2. Secure the module in place with the supplied M.2 screw.

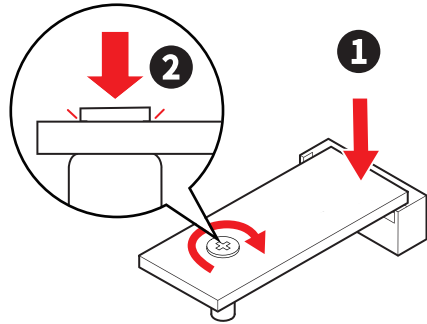


Fig. 21

5.4 Memory Configuration

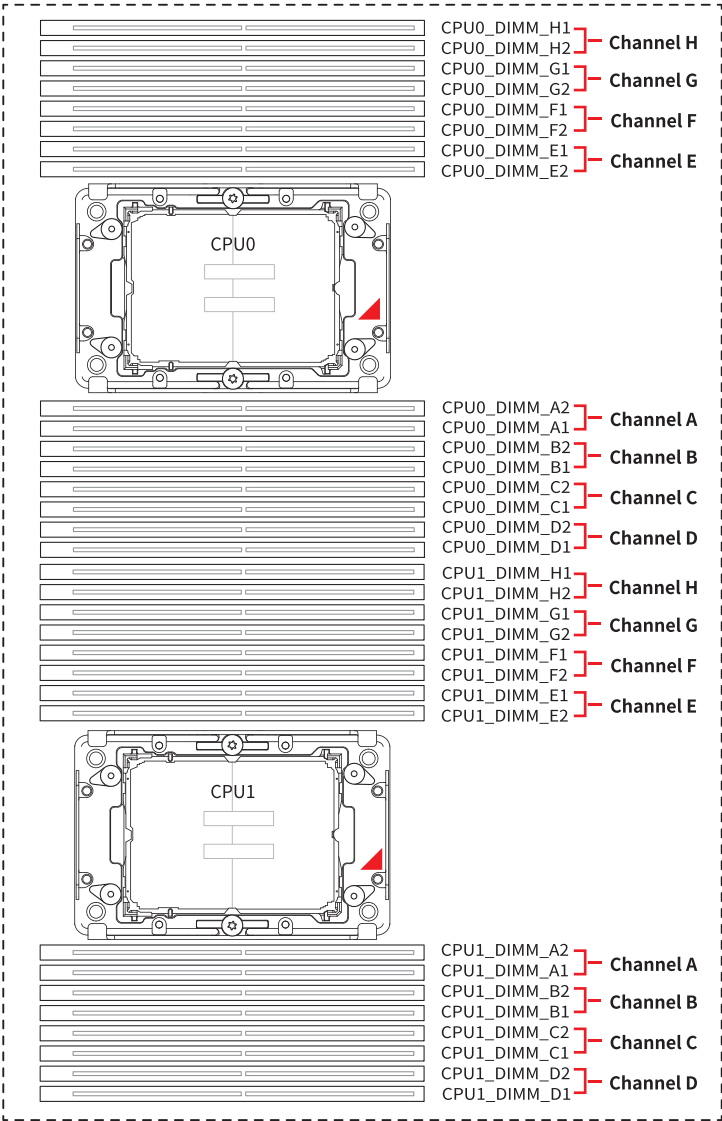
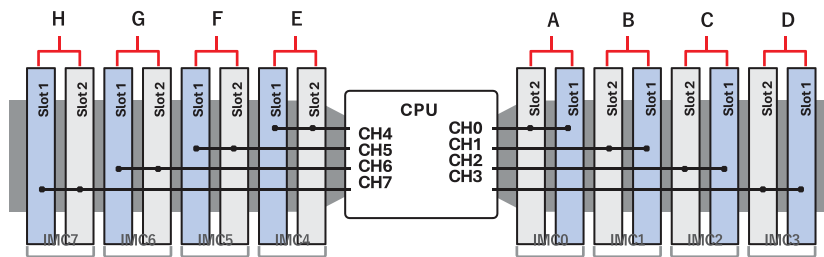


Fig. 22

Recommended Memory Population



IMC#	IMC7		IMC6		IMC5		IMC4		C P U	IMC0	IMC1		IMC2		IMC3		
Channel	H		G		F		E			A	B		C		D		
	Chan 7		Chan 6		Chan 5		Chan 4			Chan 0		Chan 1		Chan 2		Chan 3	
	H1	H2	G1	G2	F1	F2	E1	E2		A2	A1	B2	B1	C2	C1	D2	D1
1																	
4				V				V									
		V				V							V				
8		V				V						V				V	
				V		V				V	V			V	V		
		V	V				V	V				V	V			V	
12		V			V		V			V	V		V	V	V		
16		V	V		V	V		V		V	V	V	V	V	V	V	
"V" indicates DIMMs are populated with DDR5 .																	

 **Important**

There should be at least one DDR5 DIMM populated

5.5 System Fan

The server has six 60 × 60 × 56 mm 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.
- Slide the fan into the slot until it fits properly.
- Release the tabs to lock the fan in place.

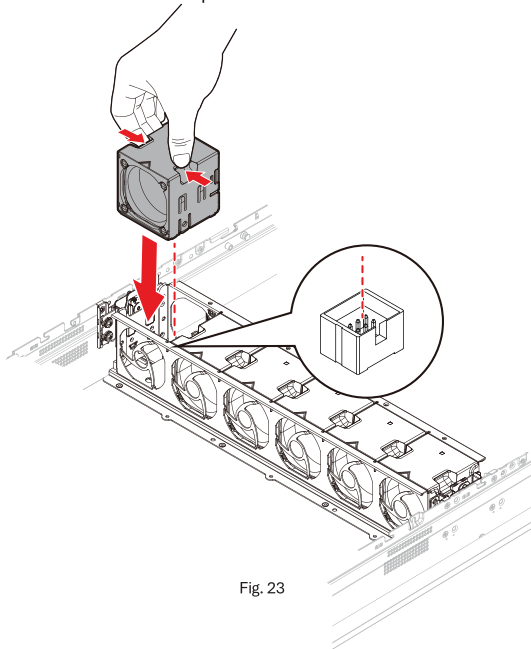
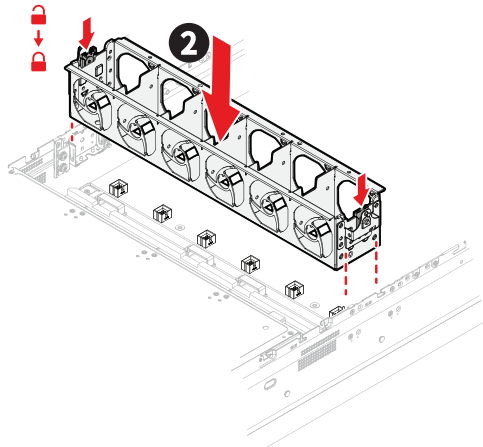
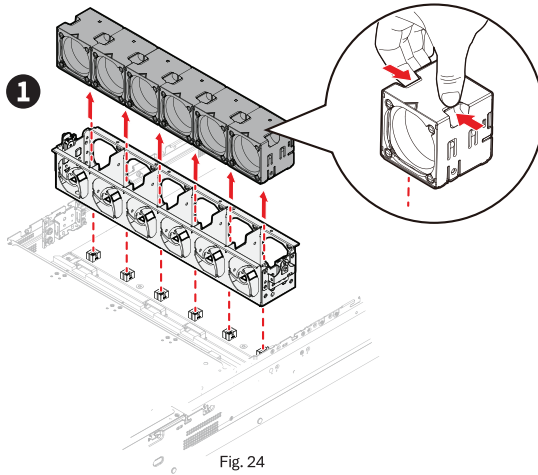


Fig. 23

5.5.3 Installing 2U Fan Cage

- Remove the fan: Press the release tabs and lift the fan to remove it from the cage.
- Make sure all cables are clear of the fan cage area before installation.
- Install the fan cage: Align the guide rails and carefully lower the cage onto the system base.
- Secure the cage: Push down the latches to lock it into place.



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.

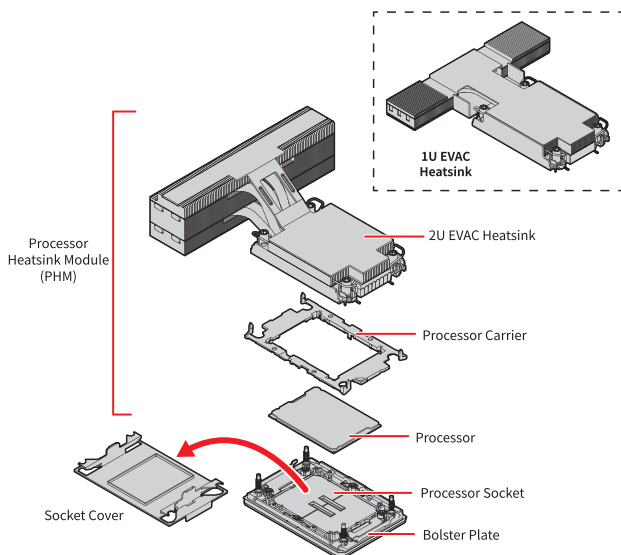


Fig. 25

Important

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

1. Align the Pin-1 indicator on the processor with the Pin-1 mark on the processor carrier, then place the processor into the carrier until it snaps and locks securely.
2. Remove the protective film from the bottom of the heatsink (if present).
 - Hold the heatsink along the fin axis to avoid damaging fins or solder joints.
3. Ensure the heatsink has pre-applied thermal paste. If not, apply thermal paste to the center of the heatsink base.
4. Align the processor carrier Pin-1 indicator with the cut corner / #1 clip on the heatsink, then gently press the heatsink down until all four carrier latches engage.
5. Verify that the carrier clips firmly secure the CPU, carrier, and heatsink together as a single Processor Heatsink Module (PHM).
6. Remove the socket cover, unlock the four anti-tilt wires, and carefully place the PHM onto the bolster plate, aligning the Pin-1 indicators and alignment pin.
7. Lock the four anti-tilt wires and ensure they are firmly secured.
8. Tighten the heatsink nuts using a Torx T30 screwdriver in a diagonal sequence.
 - First loosely fasten all screws, then tighten evenly.
 - Torque: 0.904 N·m ($\pm 10\%$) / 8 lbf·in.

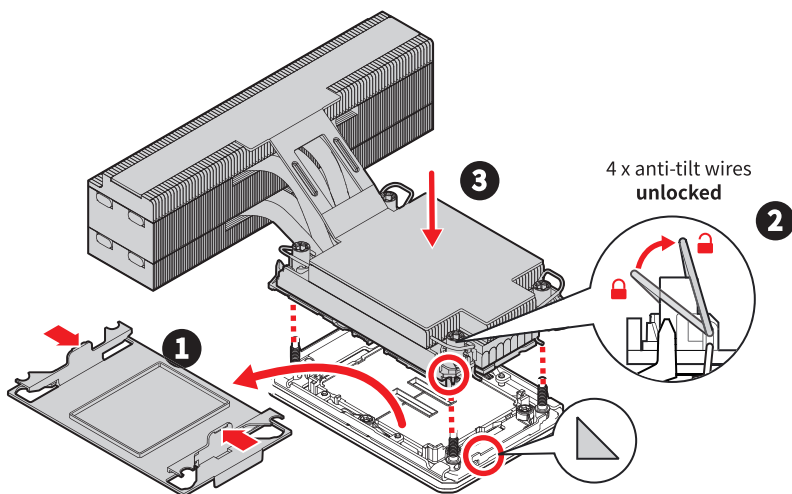


Fig. 25(a)

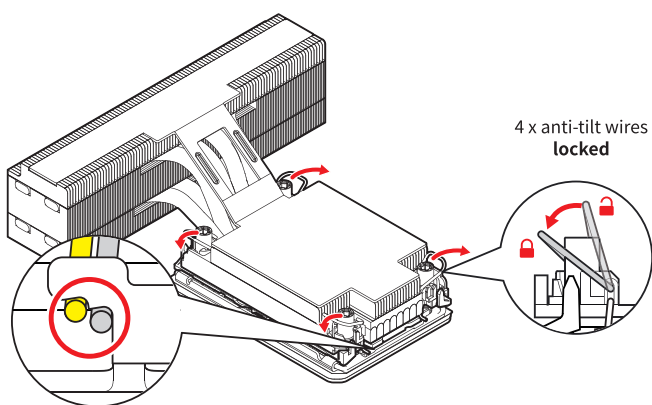


Fig. 25(b)

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

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

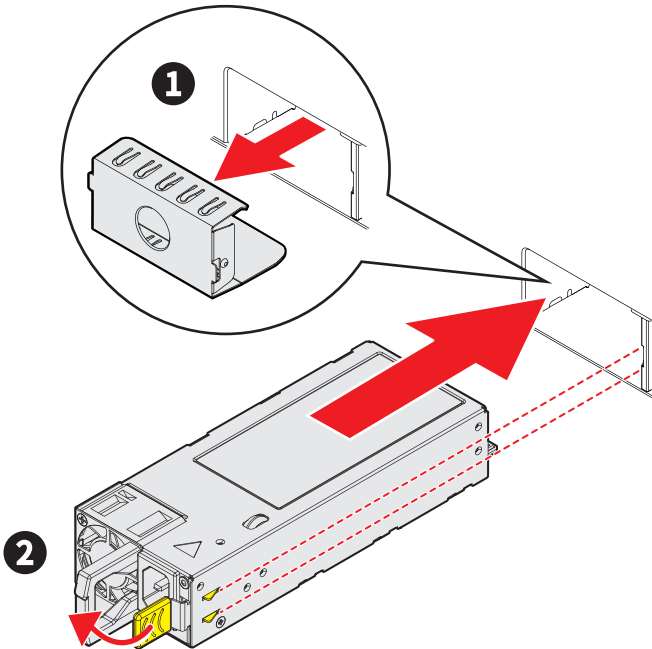


Fig. 26

7. Slide Rail

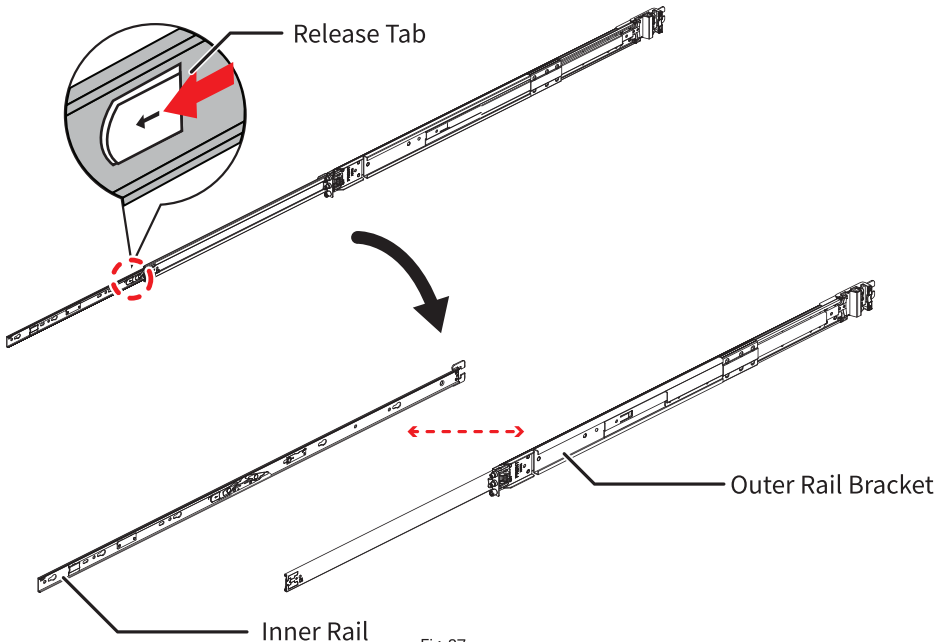


Important

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

7.1 Disassembling Slide Rail

Slide the release tab forward to separate the inner rail from the bracket.



7.2 Installing Inner Rail into the Chassis

1. Align the standoffs on the chassis side with the holes on the inner rail, then slide the inner rail backward until it locks into place.
2. Tighten the screw to secure the inner rail firmly.
3. Repeat the same steps for the other side of the chassis.

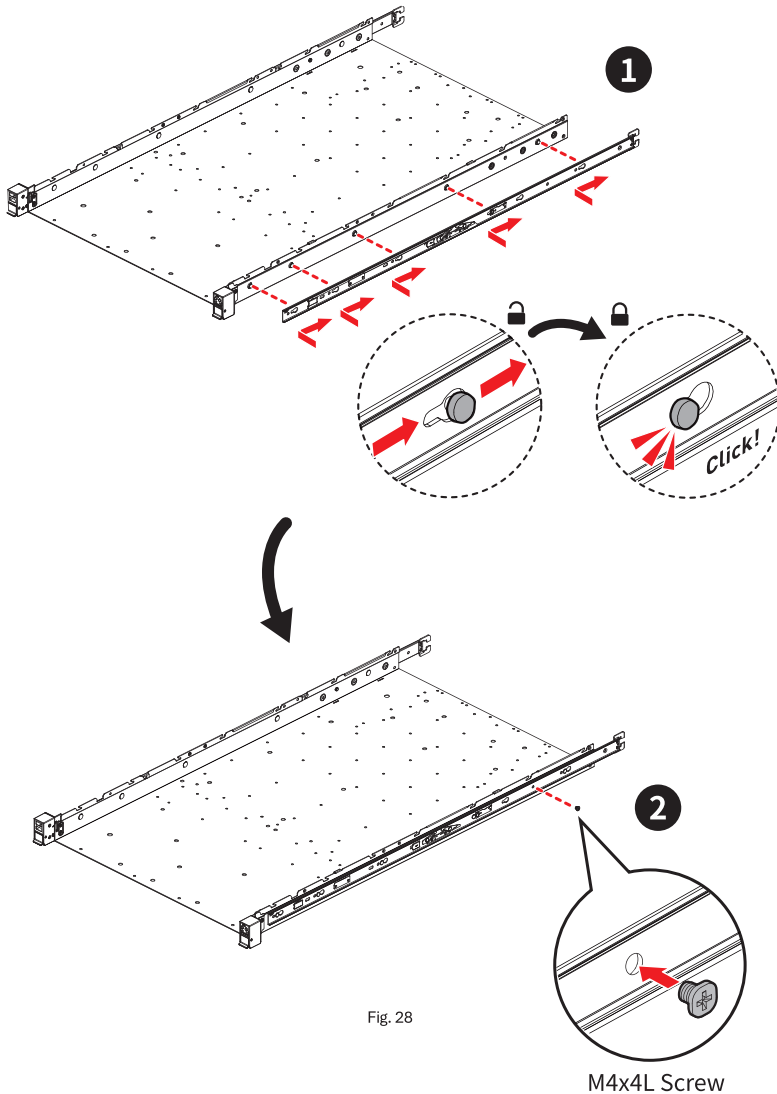


Fig. 28

M4x4L Screw

7.3 Retracting Outer Rail Bracket

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

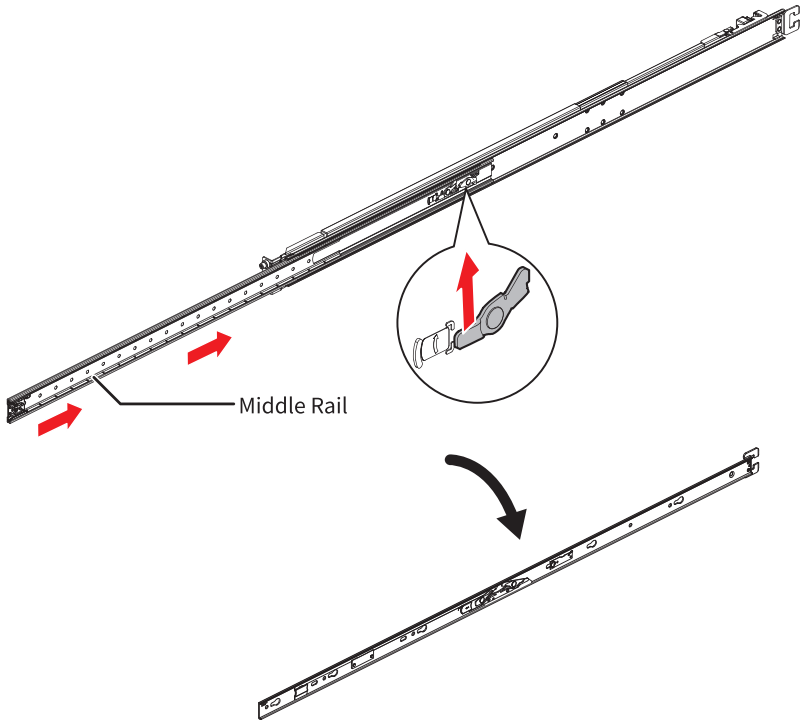


Fig. 29

7.4 Attaching Outer Rail Bracket to Rack Frame

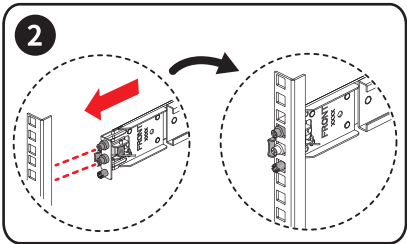
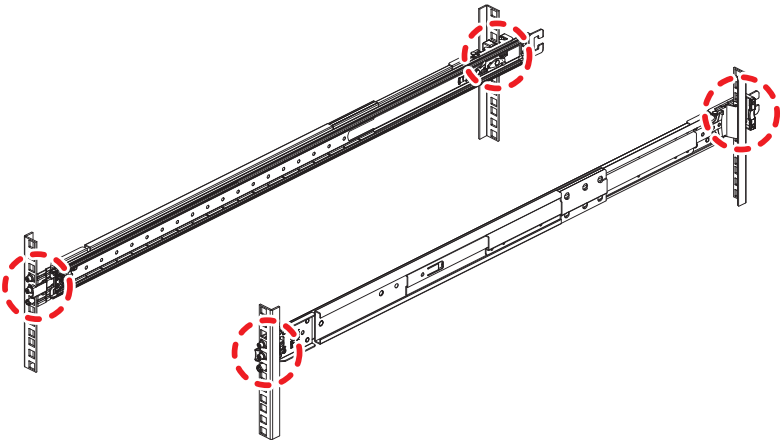
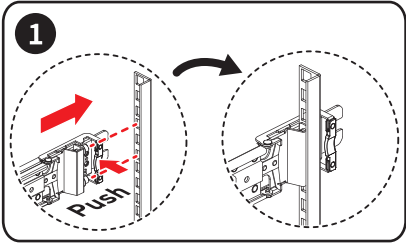


Fig. 30

7.5 Installing Chassis into Rack

7.5.1 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.

7.5.2 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.

7.5.3 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.

7.5.4 Secure the chassis

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

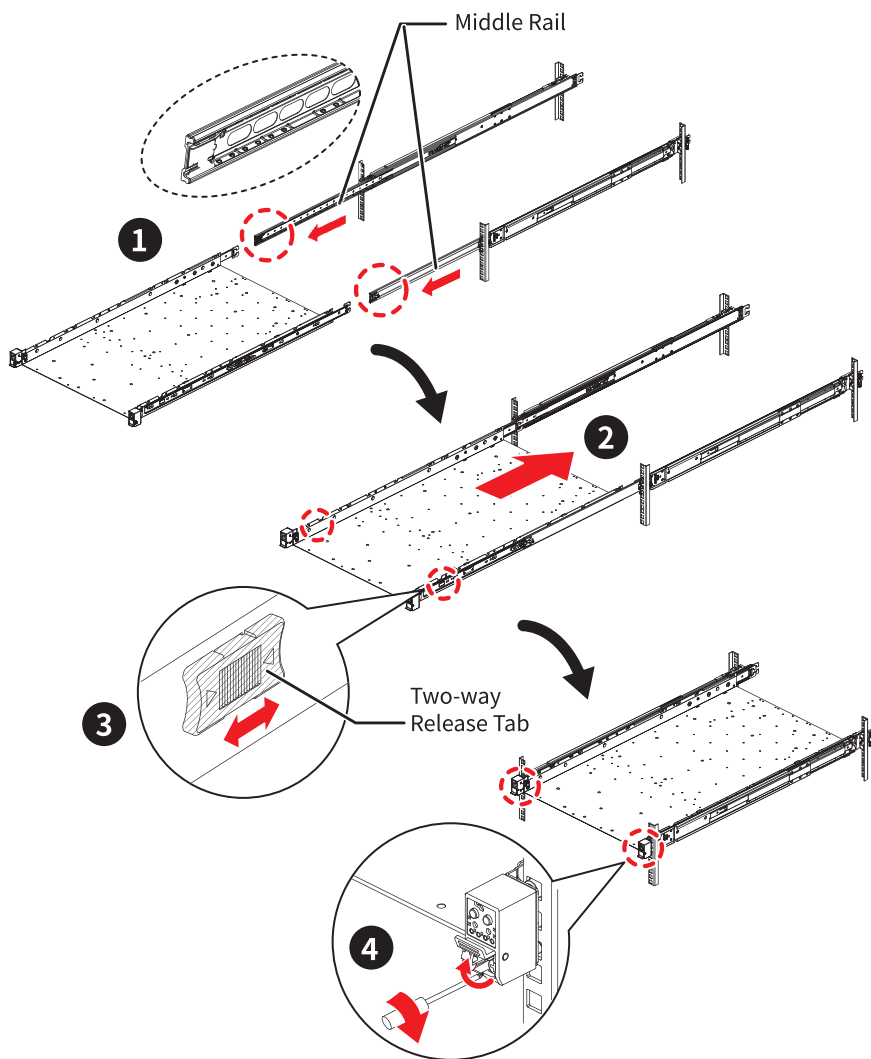


Fig. 31

7.6 Removing Chassis from Rack

- Remove the mounting screws securing the chassis to the rack.
- Slide the release tabs forward on both sides to disengage the inner rails from the rack brackets.

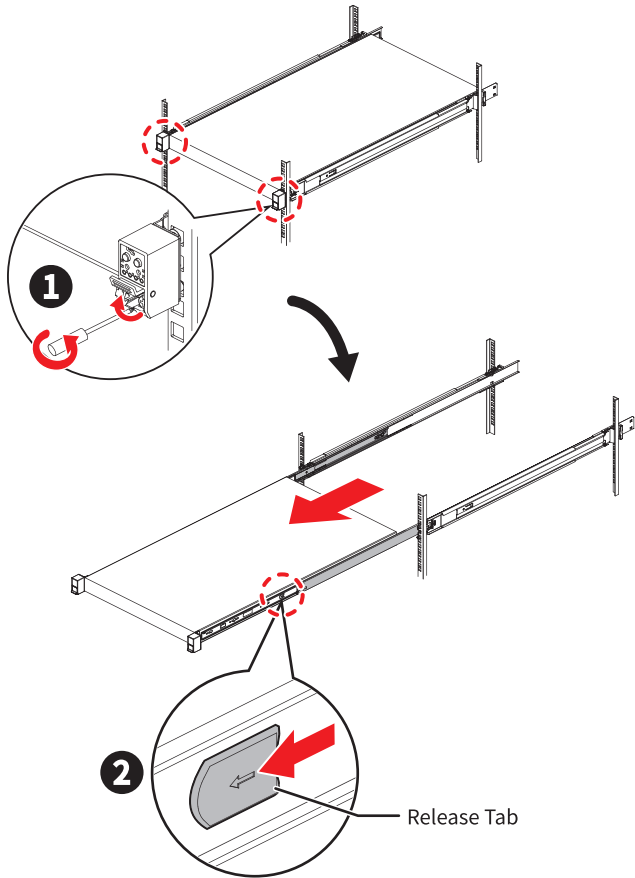


Fig. 32

7.7 Detaching Outer Rail Bracket from Rack Frame

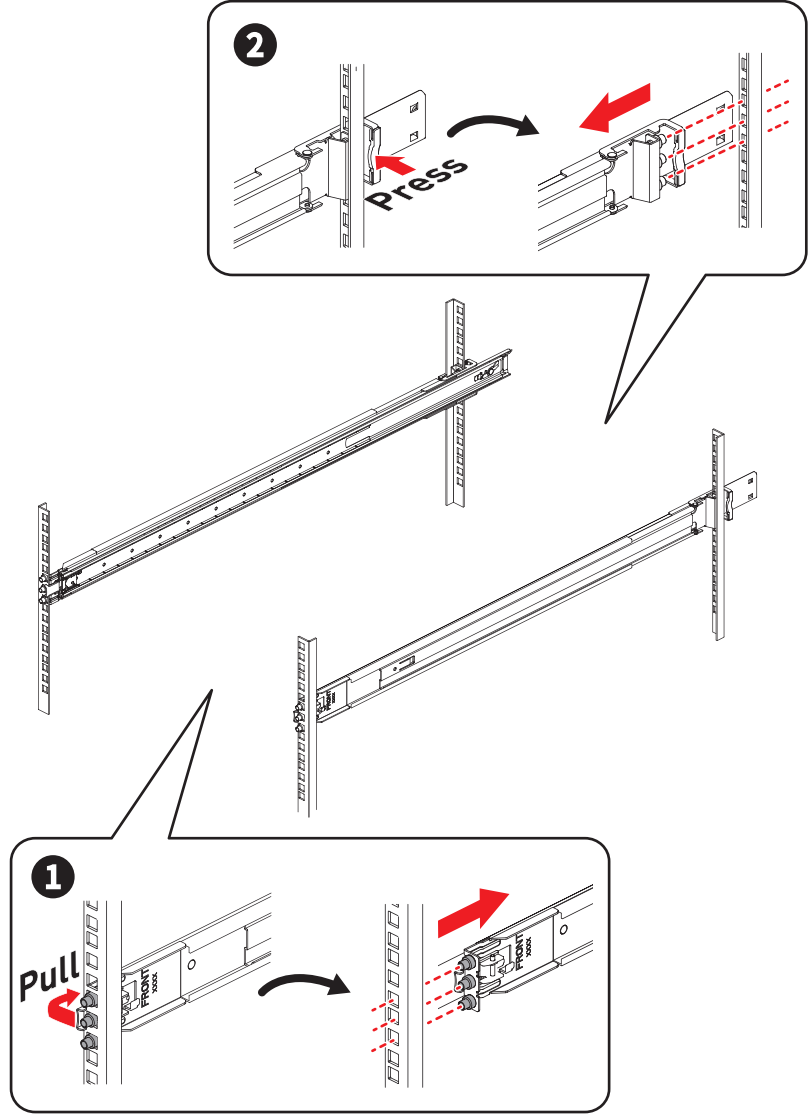


Fig. 33

7.8 Detaching Inner Rail from Chassis

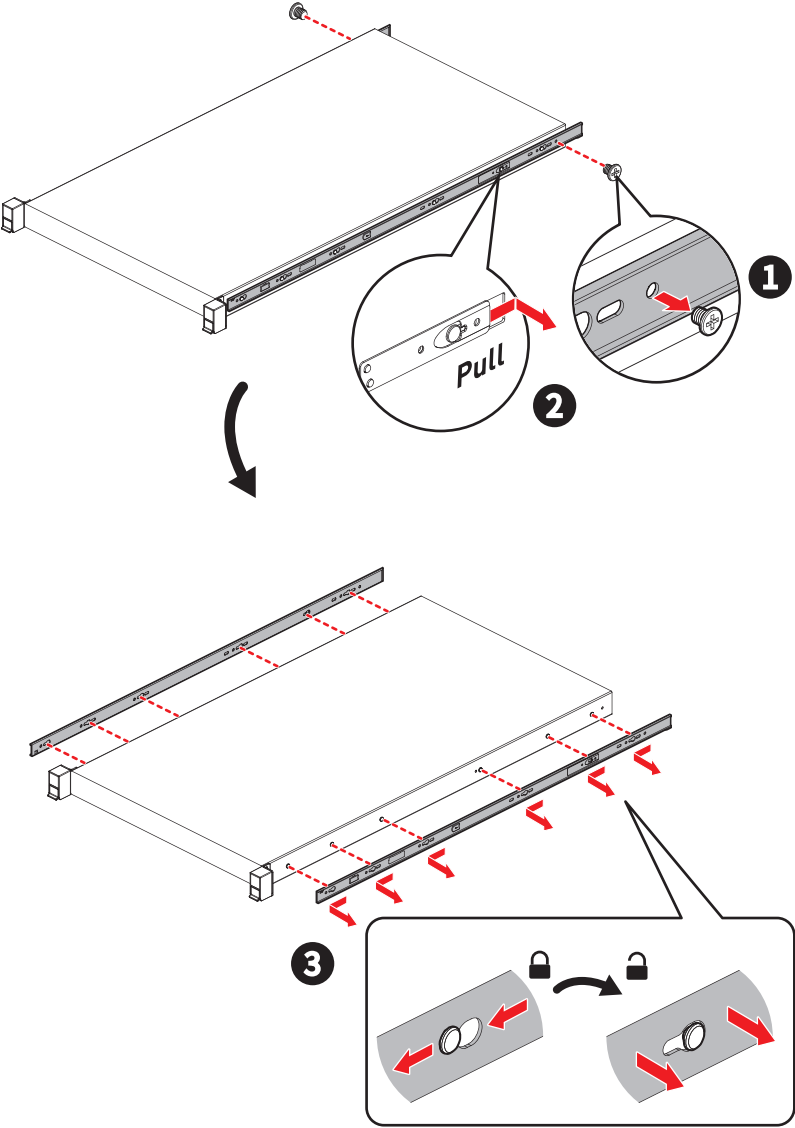


Fig. 34(a)

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.

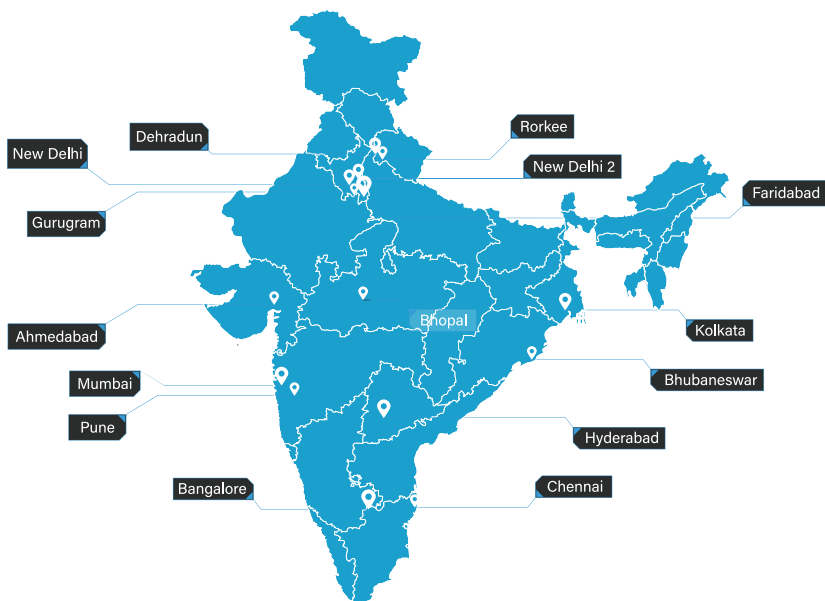
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