S1102-01
S1102-02

MS-S336

Server System

User Guide

Contents

Regulatory Notices....4

Safety Information....7

System Specifications....9

System Overview....11

- S1102-01....11
- S1102-02....12

Motherboard Block Diagram....15

System LED Indicators....16

Motherboard Overview....17

Motherboard Connectors....18

- Storage Connectors....18
- Expansion Slots....20
- Power Connectors....21
- Cooling Connectors....23
- USB Connectors....24
- Other Connectors and Components....25

Motherboard Jumpers....31

Motherboard LEDs....32

Getting Started....33

- Necessary Tools....33
- Safety Precautions....33

System Setup....34

Drive Bay....34

- Installing 3.5"/2.5" Storage Drive....34

System Cover....35

- Removing System Cover....35

Revision

V2.0, 2025/06

CPU & Cooler 36
Removing Preinstalled Liquid Cooling Module 37
Installing CPU 38
Installing Liquid Cooling Module 39
Installing Heatsink 40
Memory 41
DIMMA1~2, DIMMB1~2: DDR5 DIMM Slots 41
Recommended Memory Population 41
Installing Memory Modules 42
M.2 M Key 43
Installing M.2 M Key 43
Air Duct 44
Installing Air Duct 44
Slide Rail 46
Disassembling Slide Rail 46
Installing Inner Rail to System 47
Retracting Outer Rail Bracket 48
Attaching Outer Rail Bracket to Rack Frame 48
Installing System into Rack 49
Detaching Outer Rail Bracket from Rack Frame 50
Detaching Inner Rail from System 50

Regulatory Notices

WEEE Statement



Under the European Union ("EU") Directive on Waste Electrical and Electronic Equipment, Directive 2012/19/EU, products of "electrical and electronic equipment" cannot be discarded as municipal waste anymore and manufacturers of covered electronic equipment will be obligated to take back such products at the end of their useful life.

CE Conformity



Hereby, Micro-Star International CO., LTD declares that this device is in compliance with the essential safety requirements and other relevant provisions set out in the European Directive.

FCC-A Radio Frequency Interference Statement



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Notice 1

The changes or modifications not expressly approved by the party responsible for compliance could void the user' s authority to operate the equipment.

Notice 2

Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Chemical Substances Information

In compliance with chemical substances regulations, such as the EU REACH Regulation (Regulation EC No. 1907/2006 of the European Parliament and the Council), MSI provides the information of chemical substances in products at:

https://csr.msi.com/global/index

Battery Information

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

- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.
- Avoid disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, which can 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.

European Union:



Batteries, battery packs, and accumulators should not be disposed of as unsorted household waste. Please use the public collection system to return, recycle, or treat them in compliance with the local regulations.

BSMI:



廢電池請回收
For better environmental protection, waste batteries should be collected separately for recycling or special disposal.

California, USA:



The button cell battery may contain perchlorate material and requires special handling when recycled or disposed of in California.
For further information please visit:
http://www.dtsc.ca.gov/hazardouswaste/perchlorate/

Environmental Policy



- The product has been designed to enable proper reuse of parts and recycling and should not be thrown away at its end of life.
- Users should contact the local authorized point of collection for recycling and disposing of their end-of-life products.
- Visit the MSI website and locate a nearby distributor for further recycling information.
- Users may also reach us at gpcontdev@msi.com for information regarding proper disposal, take-back, recycling, and disassembly of MSI products.
- Please visit <https://us.msi.com/page/recycling> for information regarding the recycling of your product in the US.

Copyright and Trademarks Notice

Copyright © Micro-Star Int' l Co., Ltd. All rights reserved. The MSI logo used is a registered trademark of Micro-Star Int' l Co., Ltd. All other marks and names mentioned may be trademarks of their respective owners. No warranty as to accuracy or completeness is expressed or implied. MSI reserves the right to make changes to this document without prior notice.

Technical Support

If a problem arises with your product and no solution can be obtained from the user' s manual, please contact your place of purchase or local distributor. Alternatively, please visit https://eps.msi.com/support for further guidance.

Safety Information

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

General Safety Instructions

- Always read the safety instructions carefully.
- Keep this User Guide 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.

Electrical Safety

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 easily accessible at all times. 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).

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 circuitry remain active until AC/DC power is removed.

Assembly and Installation

This equipment must be installed in restricted access areas by qualified personnel to comply with safety standards set by the NEC and IEC 62368-1, Third Edition, for Information Technology Equipment.

Lifting and Placement

- WARNING: This server is heavy.
- 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.
- Exercise caution when installing or removing the server from the rack, as it may become unstable when not fastened to the rails.

Hot Surfaces

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

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 pack in fire or water.

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.

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.

When to Contact Service Personnel

Seek immediate assistance from qualified personnel if any of the following occurs:

- The power cord or plug is damaged.
- Liquid has entered the equipment.
- The equipment has been exposed to moisture.
- The equipment does not function as described in the User Guide.
- The equipment has been dropped or physically damaged.
- The equipment shows visible signs of breakage.

System Specifications

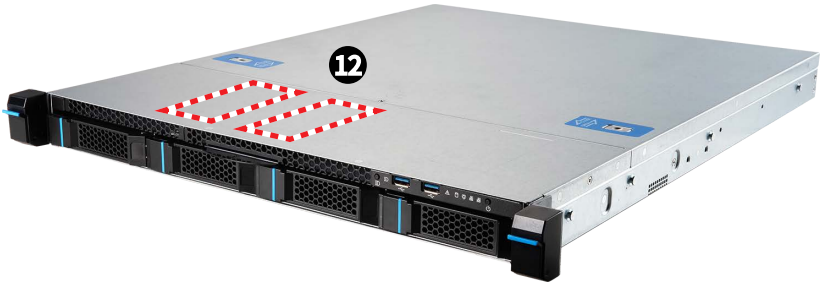
SKUs	S1102-01	S1102-02
Form factor	1U	
Dimensions	438.5mm(17.26”) W x 43.5mm(1.71”)H x **547.6mm(21.56”)D**	438.5mm(17.26”) W x 43.5mm(1.71”)H x **660mm(26”)D**
Processor	Single AMD Ryzen™ 7000/9000 Series and EPYC™ 4004/4005 Series Processor, **TDP up to 105W**	Single AMD Ryzen™ 7000/9000 Series and EPYC™ 4004/4005 Series Processor, **TDP up to 170W**
Socket	1 x AMD Socket AM5	
Chipset	AMD B650 Chipset	
Networking	• 2 x 10GbE RJ45 LAN ports - Intel® Ethernet controller X710-AT2 - JLAN1~2 support NCSI* * Only one NCSI LAN port can be enabled at a time, either JLAN1 or JLAN2.	
Graphics	1 x VGA Port (from AST2600 BMC)	
Memory	• 4 x DDR5 DIMM slots, 2DPC, ECC/non-ECC UDIMM - Max Frequency: 5600 MT/s (1DPC) and 3600 MT/s (2DPC) - Max Capacity per DIMM: 48GB	
Drive Bays	• 4 x 2.5”/ 3.5” SATA 3.0 hot-swap drive bays (front) • 2 x 2.5” SATA 2.0 drive bays (internal)	
Internal Storage	• 2 x M.2 M-Key (PCIe 4.0 x4, 2280/ 22110) - M2_1*: Choose either M2_1 or PCIE_4 for the desired function. - M2_2: Supports PCIe 4.0 x4 *The M2_1 and PCIE_4 slots cannot operate simultaneously. You can use the **JSEL_M1 jumper** to select which one to enable.	
Expansion Slots	• 1x PCIe slot - PCIE_16*: PCIe 4.0 x16 signal with riser kit, FHHL (111.28mm x 167.65mm) * The PCIE_16 expansion slot supports PCIe 5.0 x16 signal without a riser kit.	
USB	7 x USB 3.2 Gen 1 Type-A ports (2 x front, 4 x rear, 1 x internal)	
Front Panel	• 2 x USB 3.2 Gen 1 Type-A ports • 1 x System power button • 1 x UID button • 1 x UID LED • 5 x Status LEDs (Power/ HDD/ Alarm/ 2 x LANs)	
Rear Panel	• 2 x 10GbE RJ45 LAN ports • 1 x GbE RJ45 LAN port (Mgmt.) • 4 x USB 3.2 Gen 1 Type-A ports • 1 x COM port (DB9) • 1 x VGA port • 1 x UID LED button	

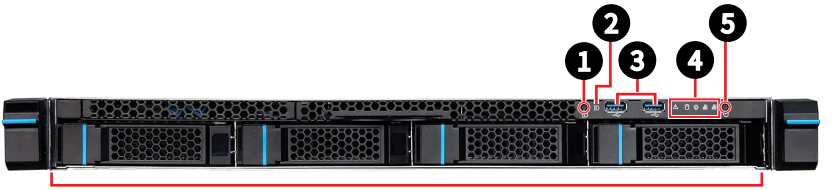
Continued on next column

SKUs	S1102-01	S1102-02
TPM	1 x TPM header (with SPI interface)	
Security	• TPM 2.0	
Server Management	• 1 x 1GbE RJ45 port for Mgmt. (Realtek® RTL8211FD-CG) • ASPEED AST2600 with AMI MegaRAC based firmware - Supports IPMI 2.0 and DMTF Redfish® API	
Cooling	• **1 x Vapor chamber air cooling module** (for max **105W** CPU) • **4 x 4028 system fans**	• **1 x Closed-loop liquid cooling module** (for max **170W** CPU) • **7 x 4028 system fans**
Environment	• Operating Temperature: 0°C ~ 35°C • Non-operating Temperature: -20°C ~ 70°C • Non-operating Relative Humidity: 5% ~ 85% (non-condensing)	
Power Supply	(1+1) **450W** Redundant PSU 80+ Platinum	(1+1) **600W** Redundant PSU 80+ Platinum
Certification	CE, FCC (Class A)	

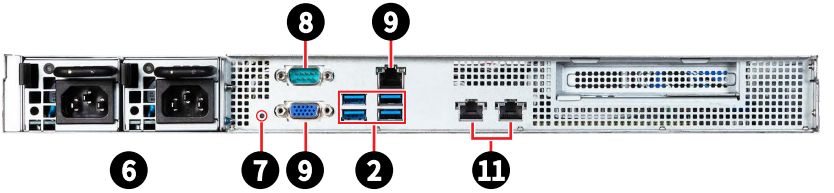
System Overview

S1102-01





4 x 2.5/ 3.5” SATA 3.0
Hot-Swap Drive Bays

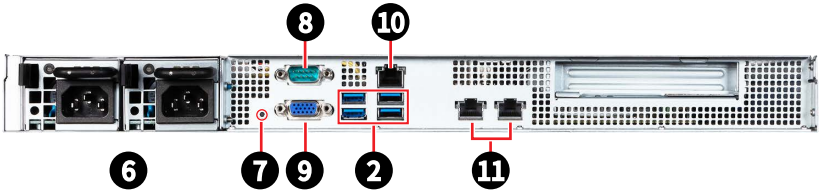


S1102-02





4 x 2.5/ 3.5” SATA 3.0
Hot-Swap Drive Bays

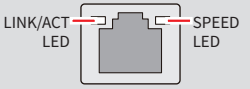


❶	**UID Button** The UID (Unit Identification) button help users identify and locate a system, especially in high-density rack environments.
❷	**UID LED**
❸	**USB 3.2 Gen 1 Type-A Port** This connector is provided for USB peripheral devices. (Speed up to 5 Gbps)
❹	**System Status LED** **HDD Activity LED** **Power LED** **LAN1/2 Activity LED** ***Important*** *The **LAN2 activity LED** indicates activity for ports JLAN1-2, while the **LAN1 activity LED** remains inactive. For the LED status, please refer to the "**System LED Indicators**" section.*
❺	**System Power Button**
❻	**Power Supply Unit**
❼	**UID LED Button** The UID (Unit Identification) LED button help users identify and locate a system, especially in high-density rack environments.
❽	**COM Port** A COM port, also called a serial port or DB9 connector, is a communication interface for transferring data between a computer and external devices such as barcode scanners, printers, and credit card machines. It' s commonly used for **initial system configuration and diagnostics** on server boards and for connecting legacy devices that lack modern interfaces. Users can connect a specially configured serial cable to establish a serial connection.
❾	**VGA Port** The DB15-pin female connector is provided for monitors.

Continued on next column

⑩ GbE RJ45 LAN port (Mgmt.)

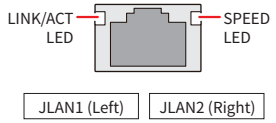
The standard RJ45 LAN jack is provided for connection to the Local Area Network (LAN). You can connect a network cable to it.



LED	Status	Description
Link/ Activity LED	Off	No link
	Green	Linked
	Blinking	Data activity
Speed LED	Off	10 Mbps
	Orange	100 Mbps
	Green	1 Gbps

⑪ 10GbE RJ45 LAN ports

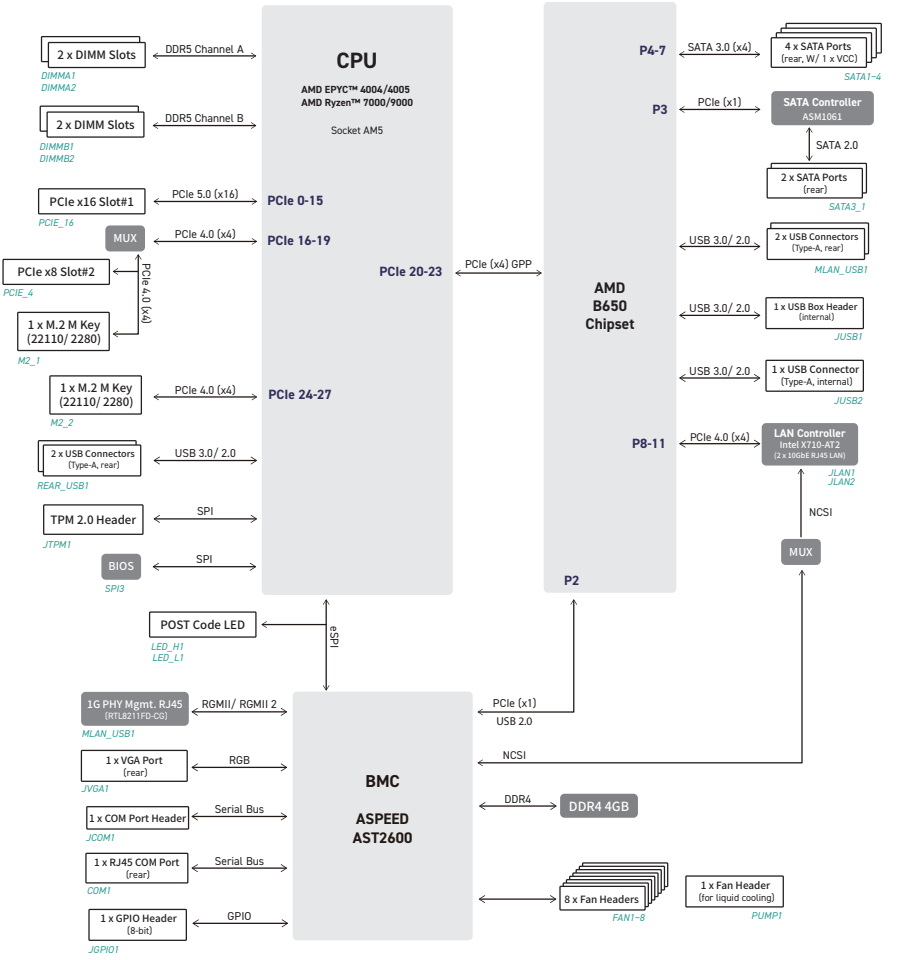
The standard RJ45 LAN jack is provided for connection to the Local Area Network (LAN). You can connect a network cable to it.



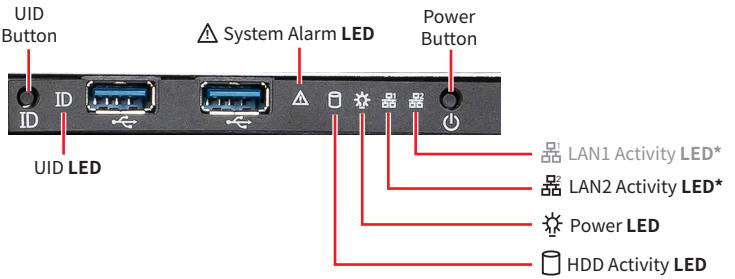
LED	Status	Description
Link/ Activity LED	Off	No link
	Green	Linked
	Blinking	Data activity
Speed LED	Off	10 Mbps
	Orange	1 Gbps
	Green	10 Gbps

⑫ 2.5” SATA 2.0 Internal Drive Bay

Motherboard Block Diagram



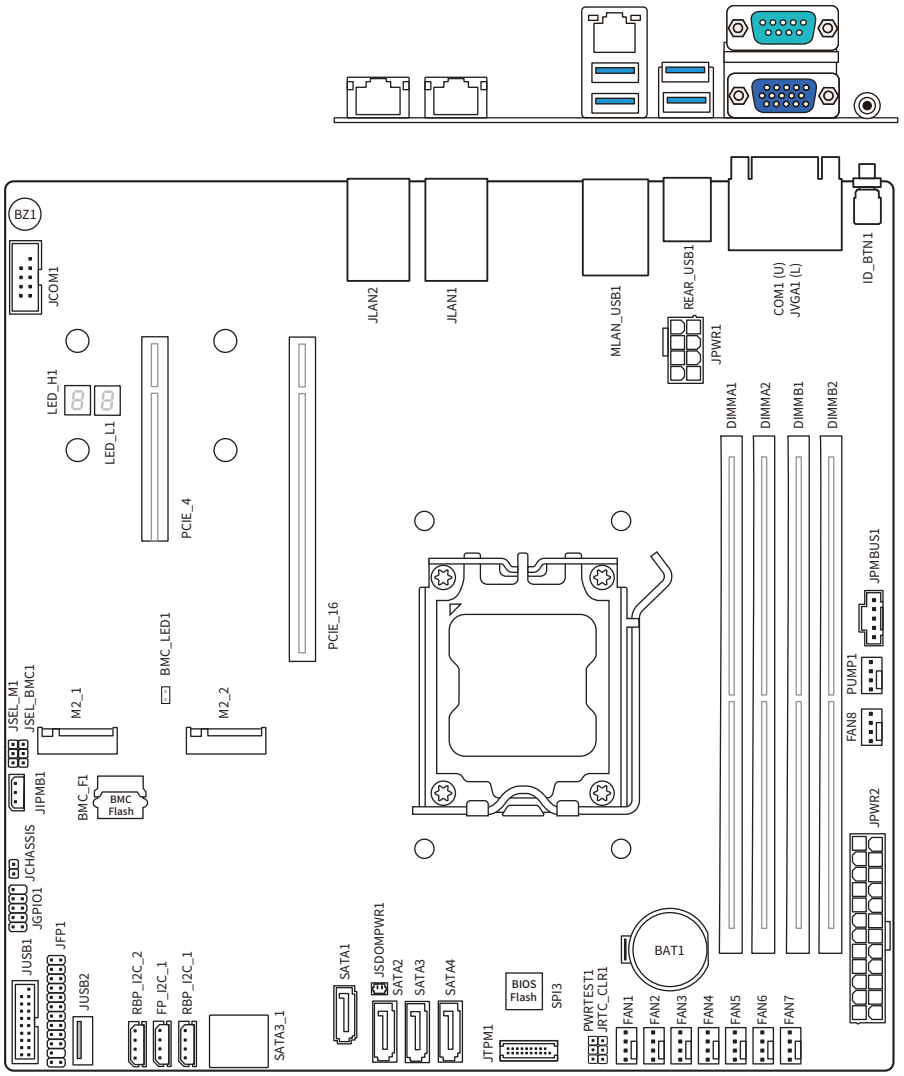
System LED Indicators



LED	LED State	Description
Power LED	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
UID LED	Blue	Identify active via command or button
	Off	No identification
System Alarm LED	Red	System has failed
	Off	System is running/ normal operation
LAN1/2 Activity LED*	Green	LAN link is established
	Blinking	LAN activity is occurring
	Off	LAN link is not established
HDD Activity LED	Yellow	HDD present, no activity
	Blinking	HDD accessing
	Off	No HDD activity

*The **LAN2 activity LED** indicates activity for ports JLAN1-2, while the **LAN1 activity LED** remains inactive.

Motherboard Overview



Motherboard Connectors

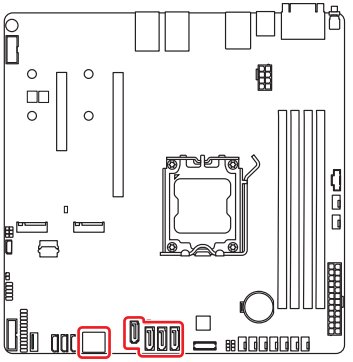
Storage Connectors

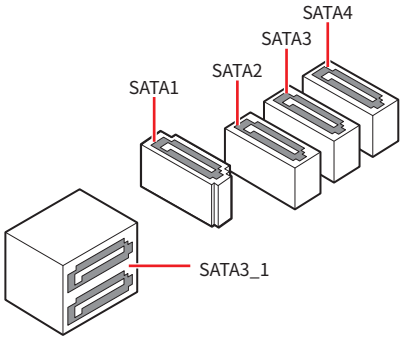
SATA1~4: SATA 3.0 6Gb/s Ports

These connectors are SATA 6Gb/s interface ports, it can connect to SATA devices.

SATA3_1: SATA 2.0 3Gb/s Ports

These connectors are SATA 3Gb/s interface ports, it can connect to SATA devices.



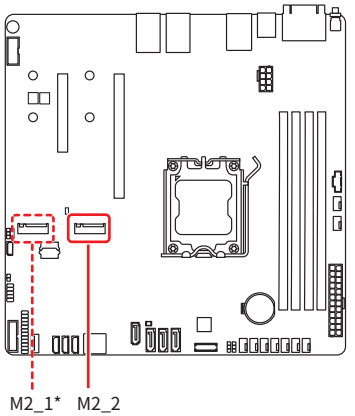


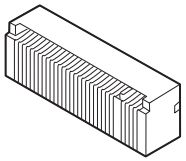
Important

- *Please do not fold the SATA cable at a 90-degree angle. Data loss may result during transmission otherwise.*
- *SATA cables have identical plugs on either sides of the cable. However, it is recommended that the flat connector be connected to the motherboard for space saving purposes.*

M2_1~2: M.2 Slots (M Key, PCIe 4.0, 22110/ 2280)

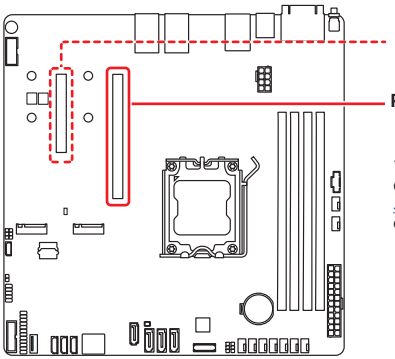
The M.2 slot supports solid-state drive (SSD). For Installation procedure, please refer to **“System Setup > M.2 M Key”**.





*M2_1: The M2_1 and PCIE_4 slots cannot operate simultaneously. You can use the JSEL_M1 jumper to select which one to enable.

Expansion Slots



PCIE_4*: PCIe 4.0 x 8 slot (Gen 4 x 4 signal from CPU)

PCIE_16: PCIe 5.0 x 16 slot (Gen 5 x 16 signal from CPU)

*PCIE_4: The PCIE_4 and M2_1 slots cannot operate simultaneously. You can use the JSEL_M1 jumper to select which one to enable.

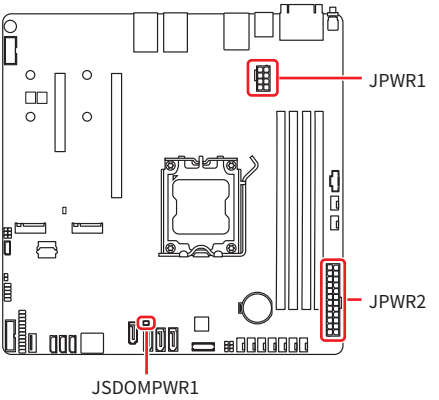
PCIE_4, PCIE_16: PCIe Expansion Slots

The PCI Express(Peripheral Component Interconnect Express) slots support PCIe interface expansion cards.

Important

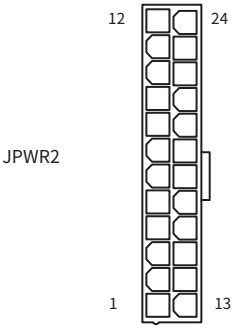
When adding or removing expansion cards, make sure that you unplug the power supply first. Meanwhile, read the documentation for the expansion card to configure any necessary hardware or software settings for the expansion card, such as jumpers, switches or BIOS configuration.

Power Connectors



JPWR2: 24-pin Main Power Connector

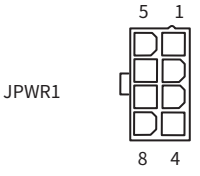
This connector allows you to connect an ATX power supply.



1	+3.3V	13	+3.3V
2	+3.3V	14	-12V
3	GND	15	GND
4	+5V	16	PS-ON#
5	GND	17	GND
6	+5V	18	GND
7	GND	19	GND
8	PWR OK	20	Res
9	5VSB	21	+5V
10	+12V	22	+5V
11	+12V	23	+5V
12	+3.3V	24	GND

JPWR1: 8-Pin 12V Power Connector

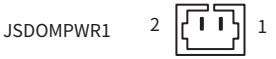
This connector allows you to connect an ATX power supply.



1	GND	5	P12V
2	GND	6	P12V
3	GND	7	P12V
4	GND	8	P12V

JSDOMPWR1: 2-pin SATA DOM Power Connector

This connector is used to provide power to SATA DOM devices.

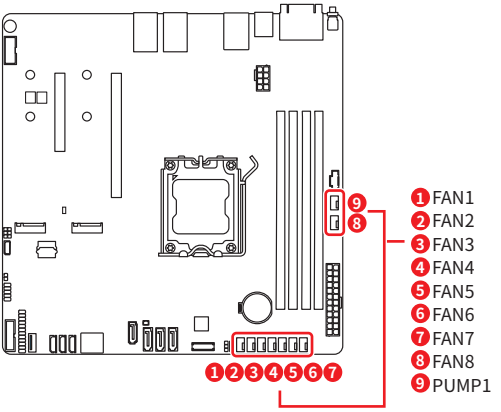


1	GND
2	P5V

Important

Make sure that all power connectors are securely connected to the power supply to ensure stable operation of the motherboard.

Cooling Connectors



FAN1~8, PUMP1: Fan Connectors

The fan connector supports system cooling fans with +12V. When connecting the wire to the connectors, always note that the red wire is the positive and should be connected to the +12V; the black wire is Ground and should be connected to GND.

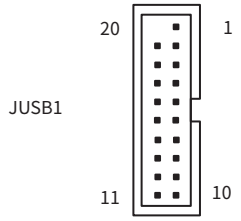
FAN1~8 	1	GND
	2	P12V
	3	FAN_TACH
	4	BMC_PWM

PUMP1 	1	GND
	2	P12V
	3	N/A
	4	BMC_PWM

USB Connectors

JUSB1: USB 3.2 Gen 1 Header

This header is backward-compatible with USB 2.0 devices and supports data transfer rate up to **5 Gbps**.

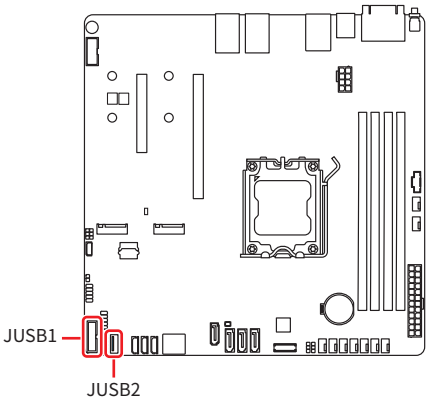


1	USB_VCC1	11	USB2_ESD_DP9
2	USB3_ESD_RX4N	12	USB2_ESD_DN9
3	USB3_ESD_RX4P	13	GND
4	GND	14	USB3_ESD_TX5P
5	USB3_ESD_TX4N	15	USB3_ESD_TX5N
6	USB3_ESD_TX4P	16	GND
7	GND	17	USB3_ESD_RX5P
8	USB2_ESD_DN8	18	USB3_ESD_RX5N
9	USB2_ESD_DP8	19	USB_VCC2
10	NC	20	No pin

JUSB2: USB 3.2 Gen 1 Type-A Port

The USB (Universal Serial Bus) port is for attaching USB devices such as keyboards, mouse, or other USB-compatible devices. USB 3.2 Gen 1 supports data transfer rates up to **5 Gbps**.

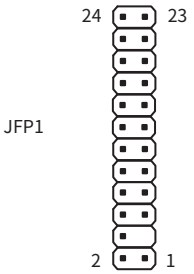




Other Connectors and Components

JFP1: Front Panel Header

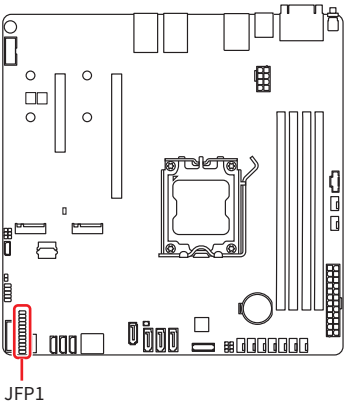
The front panel header is provided for electrical connection to the front panel switches and LEDs.



1	PWR_LED+	2	FP_PWR
3	N/A	4	SYS_ID_LED+
5	PWR_LED-	6	SYS_ID_LED-
7	HDD_ACT_LED+	8	SYS_FAULT_LED1-
9	HDD_ACT_LED-	10	SYS_FAULT_LED2-
11	PWR_BTN	12	**NIC#1**_ACT_LED+
13	PWR_BTN_GND	14	**NIC#1**_ACT_LED-
15	RST_BTN	16	SMB_SDA
17	RST_BTN_GND	18	SMB_SCL
19	SYS_ID_BTN	20	CHASSIS_INTRUSION
21	WIRE_TEMP_SENSOR	22	**NIC#2**_ACT_LED+
23	NMI_BTN	24	**NIC#2**_ACT_LED-

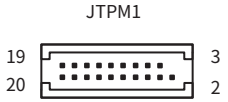
Important

*The server board is equipped with one or two types of NIC chips for different SKUs. The first type, **NIC#1**, is controlled by Intel® I210-AT and manages 1GbE RJ45 ports (JLANCONN1), but it **does not apply to this system**. The second type, **NIC#2**, is controlled by Intel® X710-AT2 and manages 10GbE RJ45 ports (JLAN1~2).*

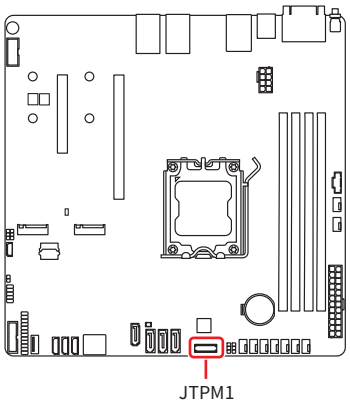


JTPM1: SPI TPM Header

This header connects to a TPM (Trusted Platform Module) (optional). Please refer to the TPM security platform manual for more details.

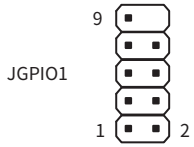


1	N/A	2	SPI_LOC_ROM_CS_N
3	CPU_RSMEST_L	4	N/A
5	GND	6	PVDD_P1V8_AUX
7	SPI_LOC_ROM_CLK	8	SPI_CPU0_WP_L
9	SPI_CPU0_HOLD_L	10	SPI_LOC_ROM_MISO
11	N/A	12	SPI_LOC_ROM_MOSI
13	CPU_SPI_TPM_CS_N	14	GND
15	PVDD_P1V8_AUX	16	GND
17	CPU_TPM_SPI_IRQ_N	18	PVDD_P1V8_AUX
19	TPM_RESET_N	20	PVDD_P1V8_AUX



JGPIO1: GPIO Header

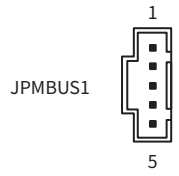
This header is provided for the General-Purpose Input/Output (GPIO) peripheral module.



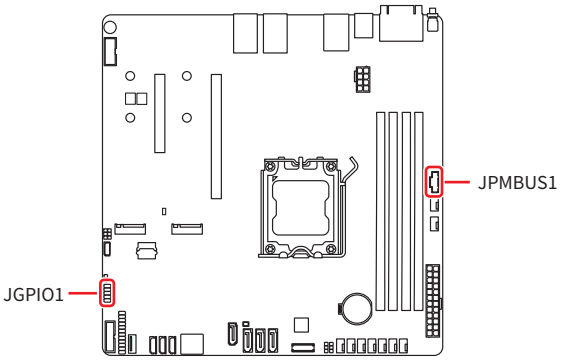
1	USER_GPIO0	2	USER_GPIO1
3	USER_GPIO2	4	USER_GPIO3
5	USER_GPIO4	6	USER_GPIO5
7	USER_GPIO6	8	USER_GPIO7
9	GND	10	No pin

JPMBUS1: PMBus Header

Power Management Bus (PMBus) is a variant of the System Management Bus (SMBus) which is targeted at digital management of power supplies.

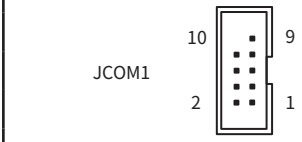


1	JPMBUS1_LVC3_SCL
2	JPMBUS1_LVC3_SDA
3	SMB_PMBUS_ALERT_N
4	GND
5	P3V3_AUX



JCOM1: COM Port Header

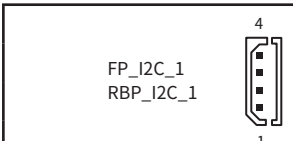
This header is a 16550A high speed communications port that sends/receives 16 bytes FIFOs. You can attach a serial device to it.



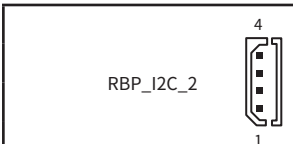
1	NDCD#_B	2	NSIN_B
3	NSOUT_B	4	NDTR_B
5	GND	6	NDSR#_B
7	NRTS_B	8	NCTS#_B
9	NRTS#_B	10	No pin

FP_I2C_1, RBP_I2C_1~2: I2C Headers

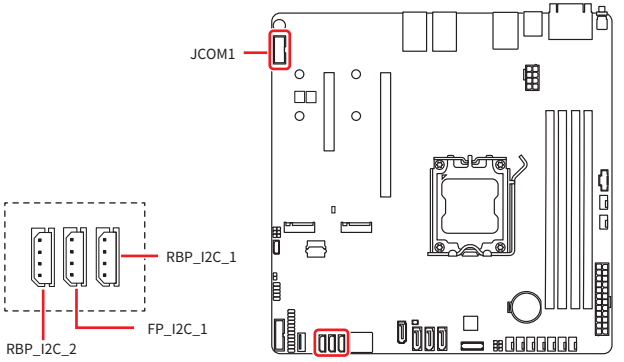
I2C headers connect to the System Management Bus (SMBus). **FBP_I2C_1** is for the front HDD backplane, **RBP_I2C_1** is for the rear HDD backplane, and **RBP_I2C_2** is for the MSI liquid module leakage sensor solution (**S1102-02**).



1	NC
2	I2C_CLK
3	I2C_DAT
4	GND

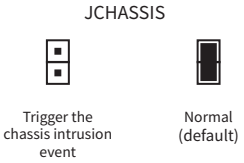


1	P3V3
2	N/A
3	GPIO control
4	GND



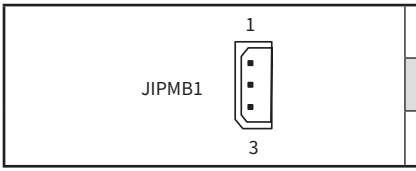
JCHASSIS: Chassis Intrusion Header

This header connects to the chassis intrusion switch cable. If the chassis is opened, the chassis intrusion mechanism will be activated. The system will record this status and show a warning message on the screen. To clear the warning, you must enter the BIOS utility and clear the record.

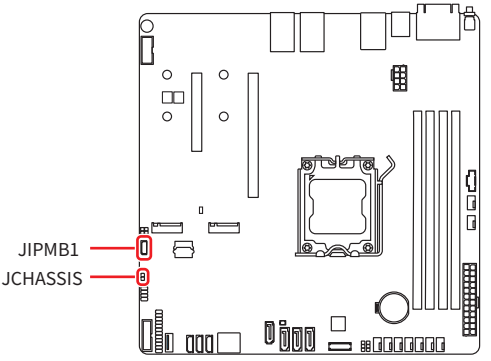


JIPMB1: IPMB Header

Intelligent Platform Management Bus (IPMB) header is used to connect various management components, such as Baseboard Management Controller (BMC).

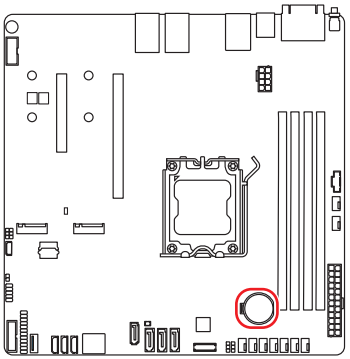


1	SMB_IPMB_DAT
2	GND
3	SMB_IPMB_CLK



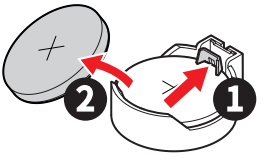
BAT1: CMOS Battery

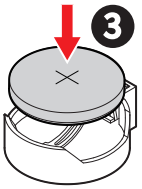
If the CMOS battery is out of charge, the time in the BIOS will be reset and the data of system configuration will be lost. In this case, you need to replace the CMOS battery.



Replacing CMOS battery

1. Push the retainer clip to free the battery.
2. Remove the battery from the socket.
3. Install the new CR2032 coin-cell battery with the **+** sign facing up. Ensure that the retainer holds the battery securely.





WARNING

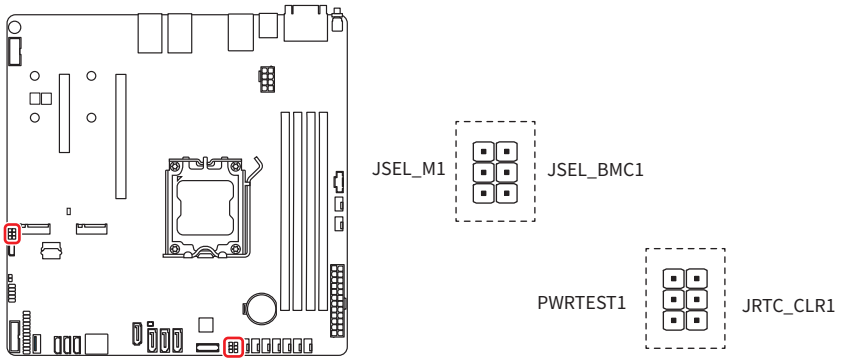
KEEP OUT OF REACH OF CHILDREN

- *Swallowing can lead to chemical burns, perforation of soft tissue, can death.*
- *Severe burns can occur within 2 hours of ingestion.*
- *If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.*

Motherboard Jumpers

Important

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

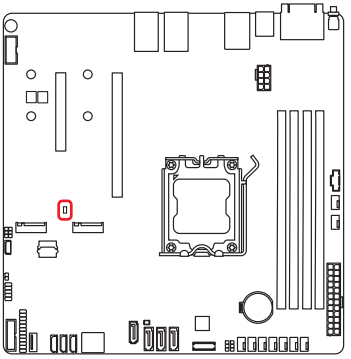


Jumper Name	Default Setting	Description
JSEL_M1	1	1-2: M.2_1 enabled, PCIE_4 disabled (Default) 2-3: PCIE_4 enabled, M.2_1 disabled
JSEL_BMC1	1	1-2: Using CPU (Default) 2-3: Using BMC
PWRTEST1	1	1-2: Normal (Default) 2-3: Power test
JRTC_CLR1	1	1-2: Normal (Default) 2-3: Clear CMOS

Motherboard LEDs

BMC_LED1: BMC Heartbeat LED

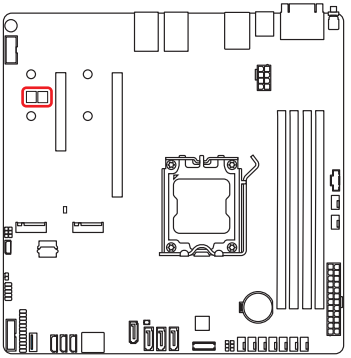
This LED indicates the BMC (Baseboard Management Controller) status.

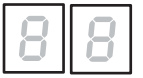


Status	Description
Off	BMC is not activated
Blinking	BMC is functioning normally

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).





Hexadecimal Character Table

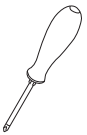
Hexadecimal	0	1	2	3	4	5	6	7
LED display	0	1	2	3	4	5	6	7
Hexadecimal	8	9	A	B	C	D	E	F
LED display	8	9	A	b	C	d	E	F

Getting Started

Important

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

Necessary Tools



Screwdriver



Pliers



Tweezers



Anti-Static Gloves

Safety Precautions

The following precautions should be observed while handling the system:

- Place the system on a flat and stable surface.
- Do not place the system in environments subject to mist, smoke, vibration, excessive dust, salty or greasy air, or other corrosive gases and fumes.
- Do not drop or jolt the system.
- Do not use a power adapter other than the one enclosed with the system.
- Disconnect the power cord before performing any installation procedures on the system.
- Do not perform any maintenance with wet hands.
- Prevent foreign substances, such as water, other liquids or chemicals, from entering the system while performing installation procedures.
- Use a grounded wrist strap before handling system components such as CPU, Memory, HDD, expansion cards, etc.
- Place system components on a grounded anti-static pad or on the bed that came with the components whenever the components are separated from the system.

System Setup

Important

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

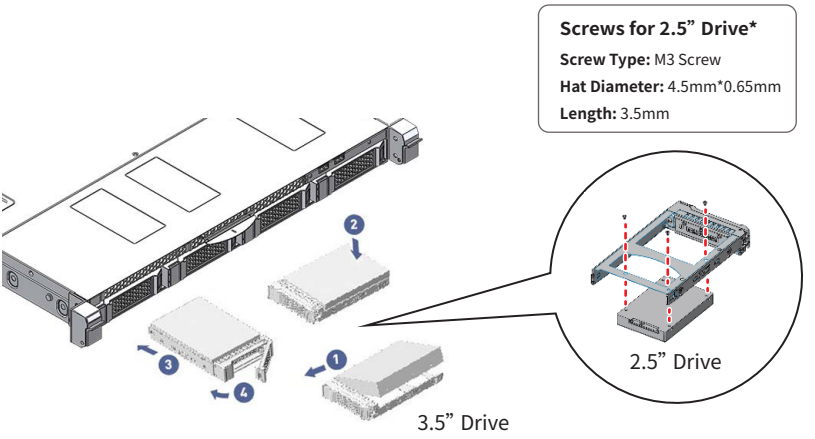
Drive Bay

Installing 3.5"/2.5" Storage Drive

1. Engage two embossed pins on the carrier into the side dimples on the 3.5” drive.

- *For 2.5” drive, align the drive with the screw holes on the tray and secure it with screws*.*

2. Carefully push down on the other side of the 3.5” drive until another two embossed pins lock into place.
3. With the lever open, insert the drive carrier horizontally into the drive bay until the locking lever engages.
4. Push the lever in to lock the carrier in place.



*Screws for 2.5” drive are not included in the package.

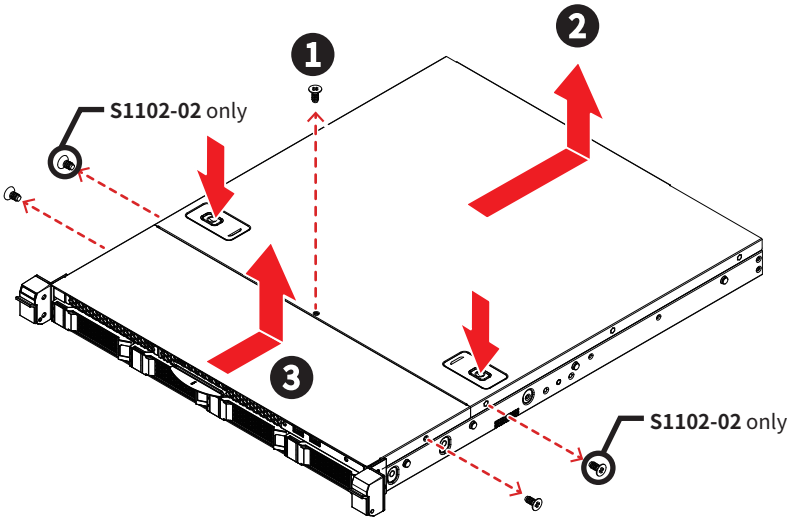
System Cover

Removing System Cover

1. Loosen and remove the **screws** securing the system on both sides and the top.

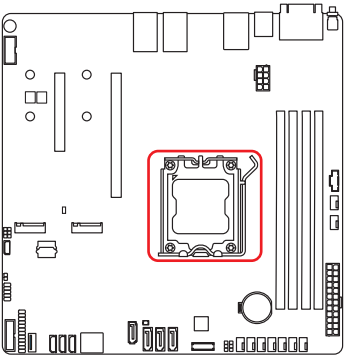
- *Screws securing the rear top cover on both sides are only present in the **S1102-02** SKU.*

2. Press down on the **release latches** on both sides of the rear top cover, then slide it towards the back of the system to remove it.
3. Slide the front top cover towards the back of the system to remove it.



CPU & Cooler

Use appropriate ground straps, gloves and ESD mats to protect yourself from electrostatic discharge (ESD) while installing the processor.



Important

- ***Overheating*** *will seriously damage the CPU and system. Always make sure the cooling fan can work properly to protect the CPU from overheating. Make sure that you apply an even layer of thermal paste (or thermal tape) between the CPU and the cooler to enhance heat dissipation.*
- *While* ***replacing the CPU****, always turn off the power supply or unplug the power supply' s power cord from the grounded outlet first to ensure the safety of CPU.*
- *Confirm if your liquid cooling module is firmly installed before turning on your system.*
- *Do not touch the CPU socket pins to avoid damage.*
- *Whenever CPU is not installed, always protect your CPU socket pins with the plastic cap covered.*
- *Please refer to the documentation in the liquid cooling module package for more details about the liquid cooling module installation.*
- *Read the CPU status in BIOS.*

Removing Preinstalled Liquid Cooling Module

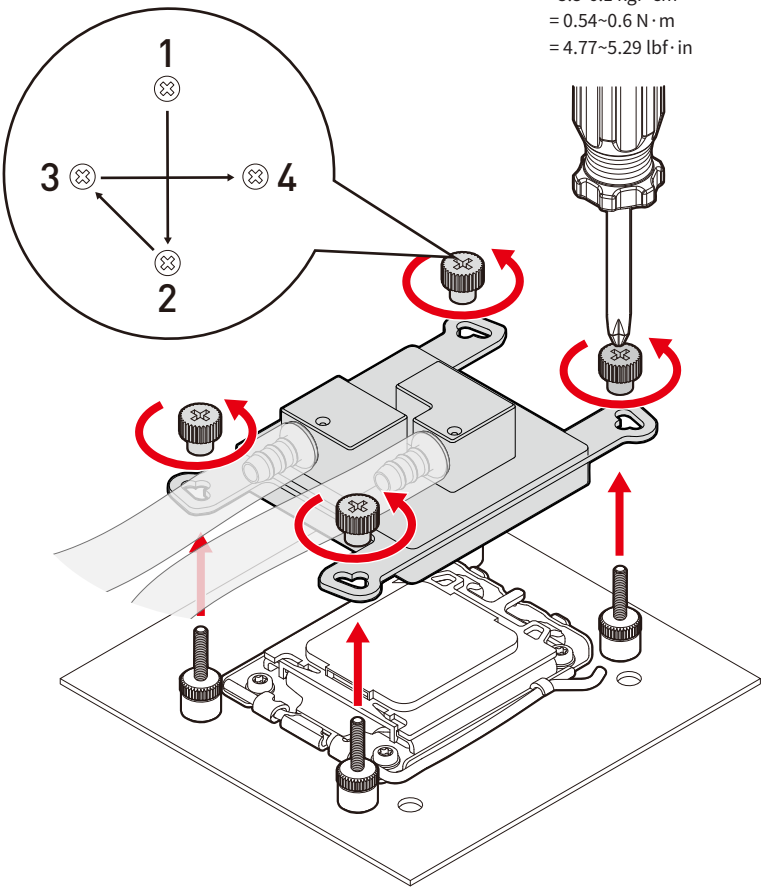
If your system comes with a preinstalled liquid cooling module, follow the instructions to remove it before proceeding with the CPU installation.

Follow the instruction below:

Remove all screws in **diagonal sequence** with a torque screwdriver.

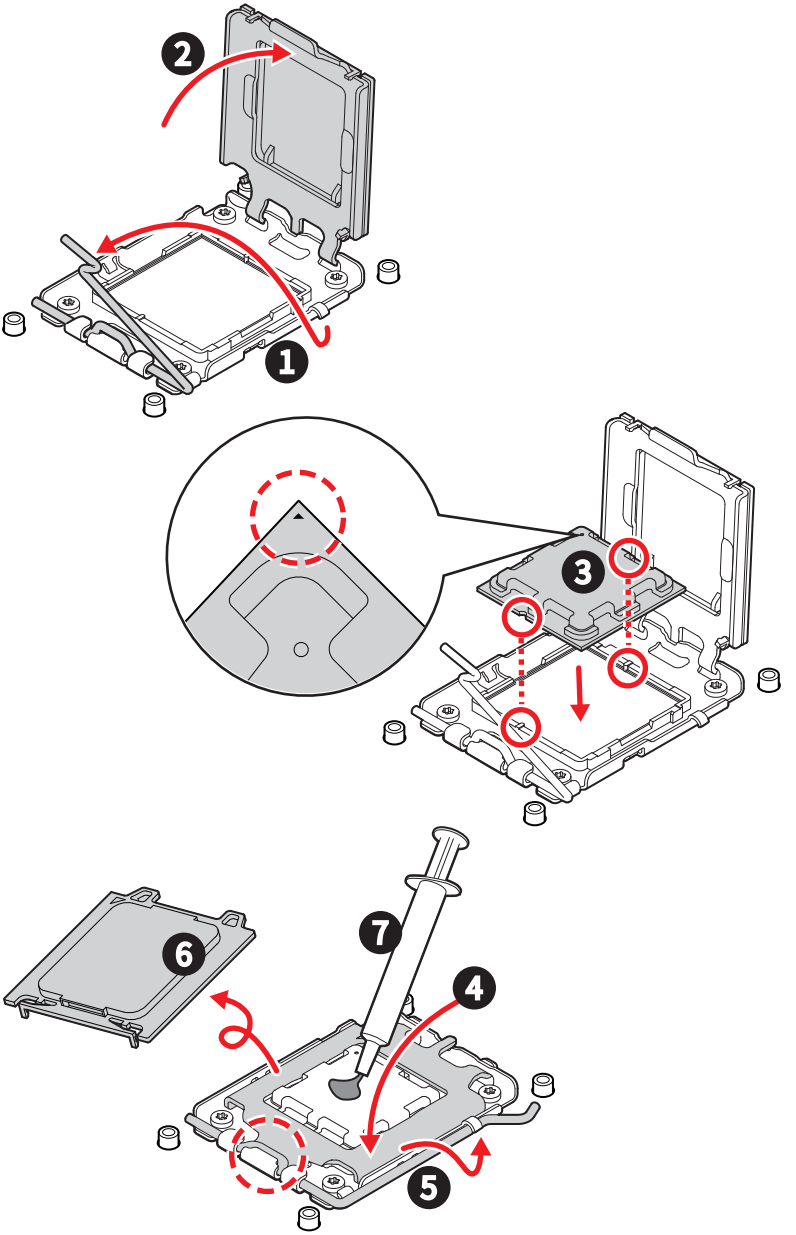
Torque:
5.5-6.1 kgf · cm*

*5.5-6.1 kgf · cm
= 0.54~0.6 N · m
= 4.77~5.29 lbf · in



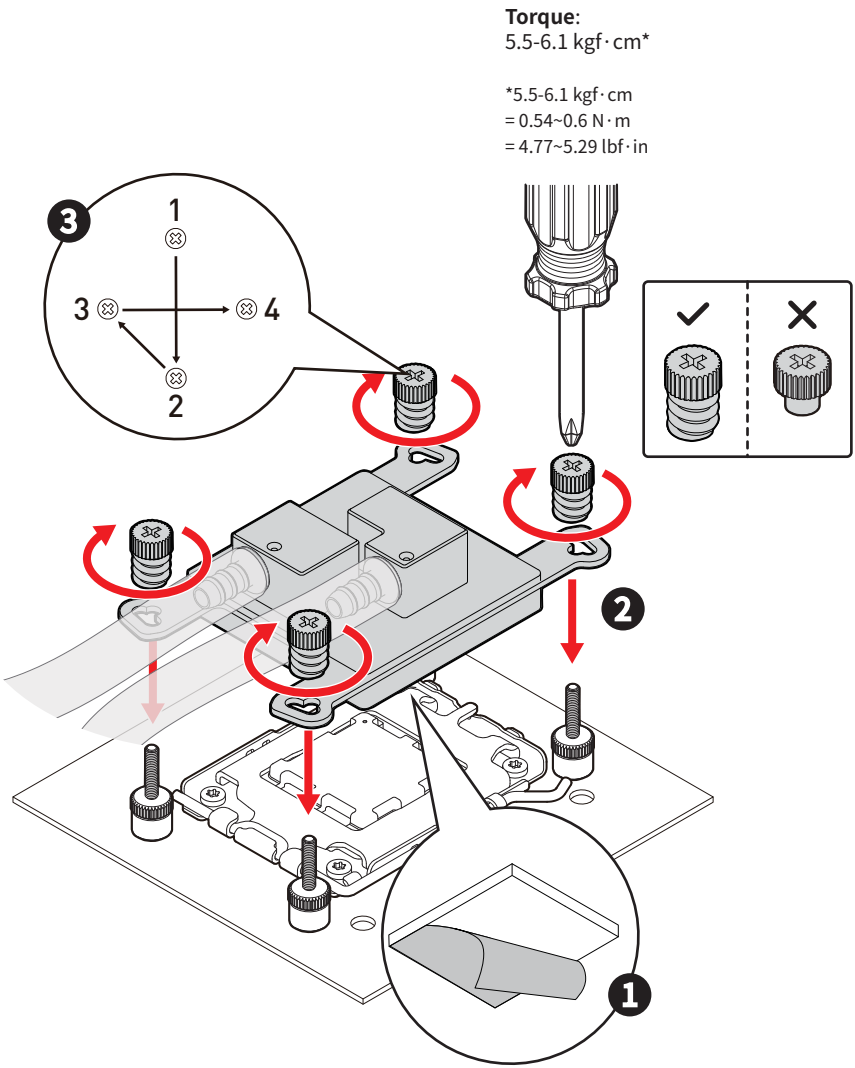
Installing CPU

Follow the steps below to install CPU:



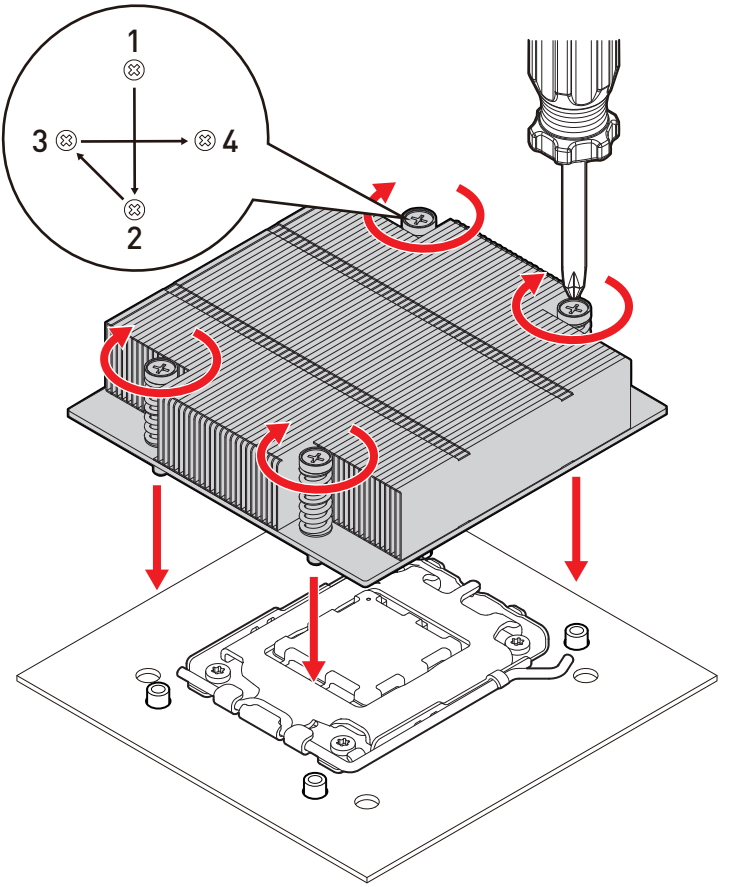
Installing Liquid Cooling Module

Follow the steps below to install liquid cooling module:



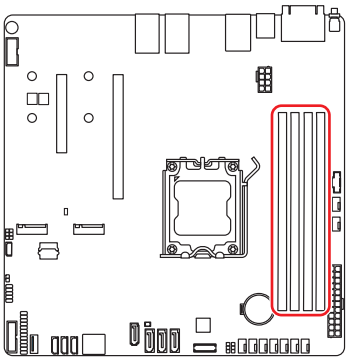
Installing Heatsink

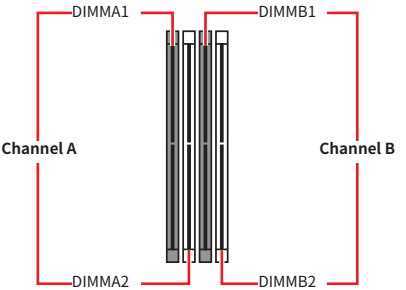
Follow the instruction below to install heatsink:



Memory

DIMMA1~2, DIMMB1~2: DDR5 DIMM Slots





Recommended Memory Population

Quantity of DIMMs		1	2			3		4
Channel A	DIMMA1				V		V	V
	DIMMA2	V	V		V	V	V	V
Channel B	DIMMB1			V		V		V
	DIMMB2		V	V		V	V	V

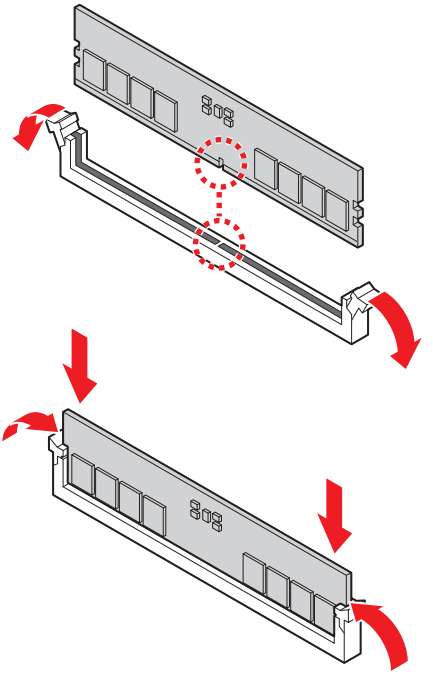
**"V" indicates a populated DIMM slot. **

Important

- *Only support **UDIMM**.*
- *There should be at least 1 DDR5 DIMM populated.*
- *Paired memory installation for Max performance.*
- *If only **1 DIMM** is populated in a channel, then populate it in the **DIMMA2** slot.*
- *Populate the same DIMM type in each channel, specifically: 1. Use the same DIMM size; 2. Use the same number of ranks per DIMM.*
- *We don't suggest other memory installation.*

Installing Memory Modules

1. Open the side clips to unlock the DIMM slot.
2. Insert the DIMM vertically into the slot, ensuring that the off-center notch at the bottom aligns with the slot.
3. Push the DIMM firmly into the slot until it clicks and the side clips automatically close.
4. Verify that the side clips have securely locked the DIMM in place.



Important

You can barely see the golden finger if the memory module is properly inserted in the DIMM slot.

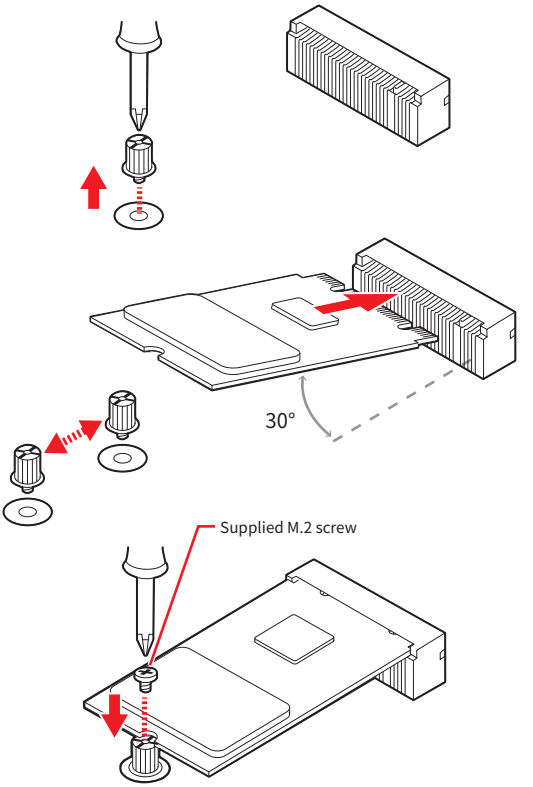
M.2 M Key

Installing M.2 M Key

Video Demonstration

Watch the video to learn how to Install M.2 SSD.

1. Loosen the M.2 riser screw from the motherboard.
2. Move and fasten the M.2 riser screw to the appropriate location according your M.2 SSD size.
3. Insert your M.2 SSD into the M.2 slot at a 30-degree angle.
4. Secure the M.2 SSD in place with the supplied M.2 screw.



Air Duct

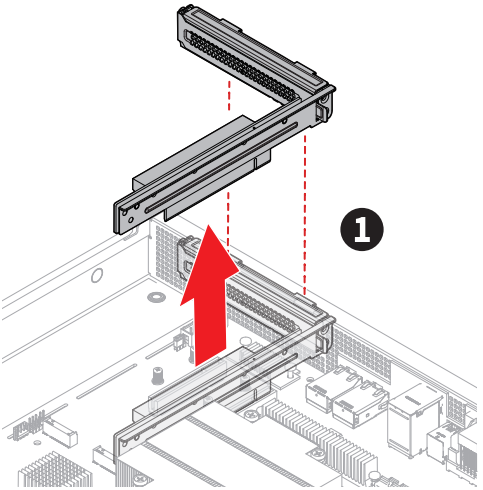
Installing Air Duct

Important

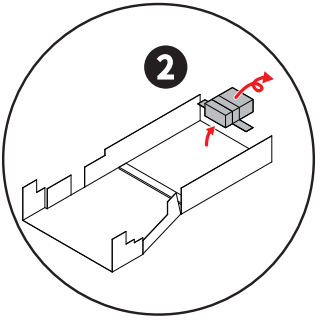
The air duct is only for SKU with heatsink.

Follow the steps below to install air duct:

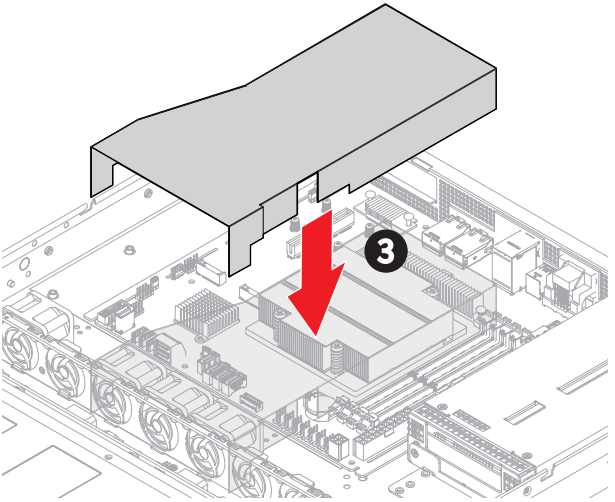
1. Remove the **riser card assembly**.



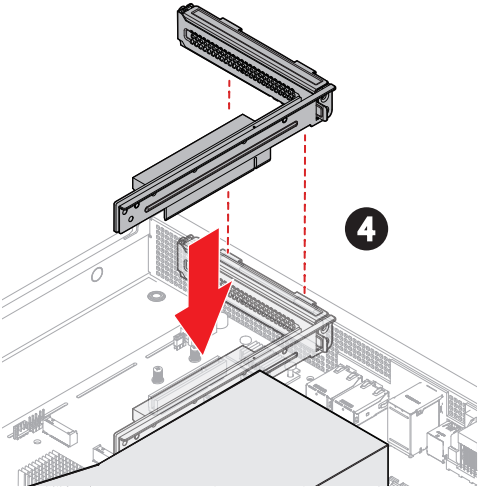
2. Flip the air duct over and remove the **polystyrene cube**.



3. Install the air duct.



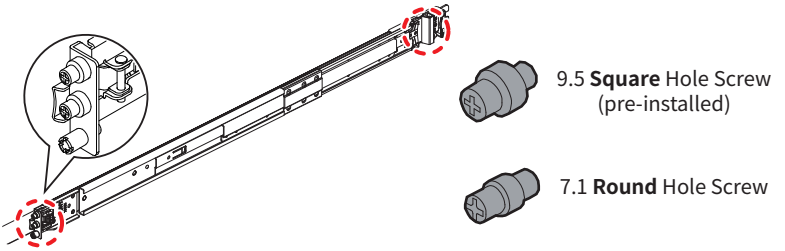
4. Reinstall the riser card assembly back into the chassis.



Slide Rail

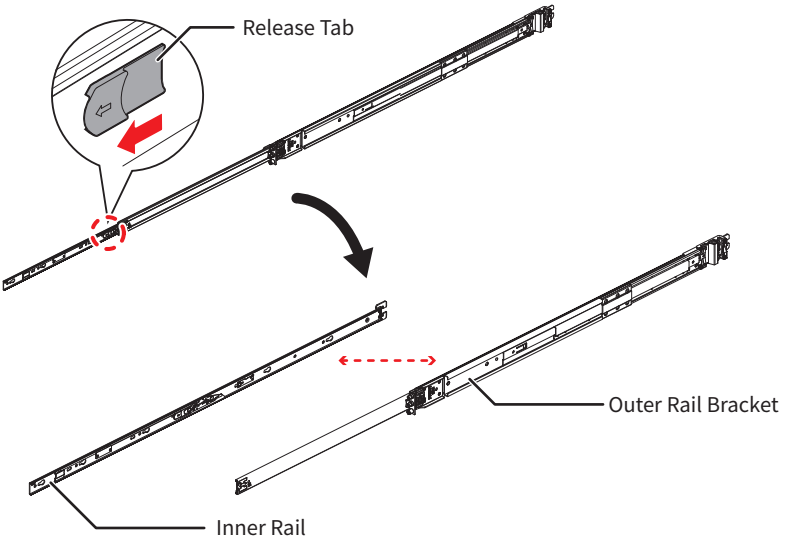
Important

*The pre-installed screws on the outer rail bracket are intended only for square rack holes. For round holes, please switch to the **"7.1 round hole screw"**.*



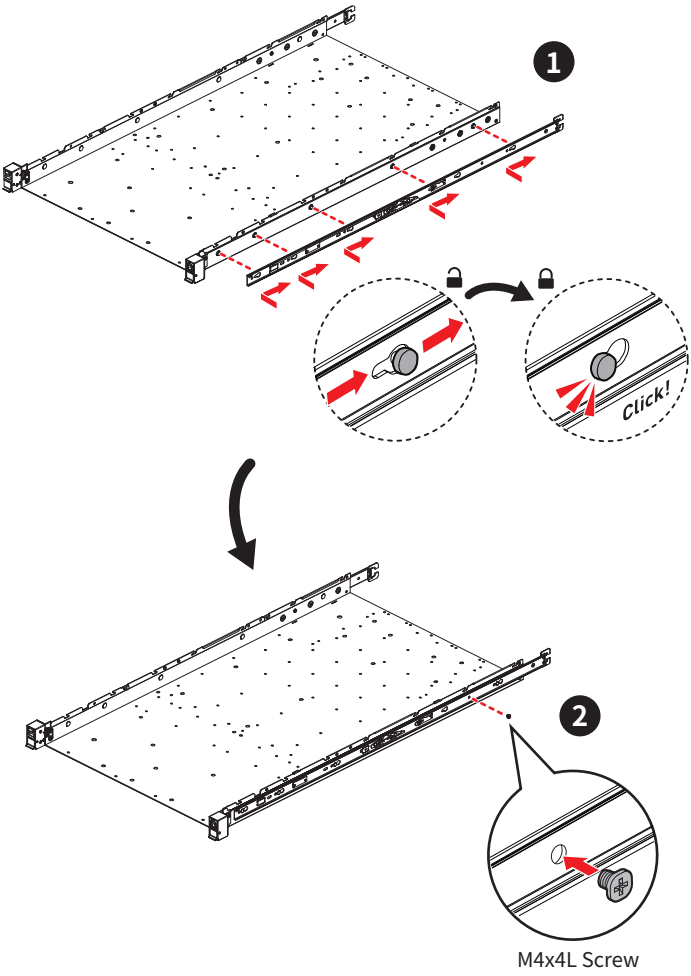
Disassembling Slide Rail

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



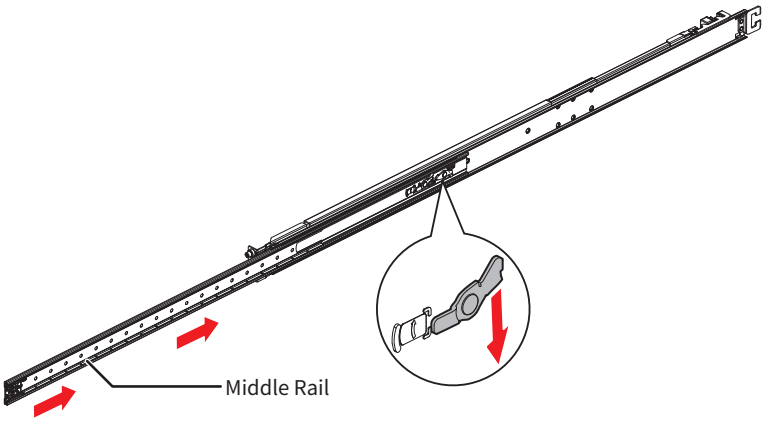
Installing Inner Rail to System

1. Align the standoffs on the side of the system with the hole on the inner rail, then **pull the inner rail backwards** till it locks into place.
2. Tighten the screw to secure the inner rail.
3. Repeat the same procedure to install the inner rail on the other side of the system.

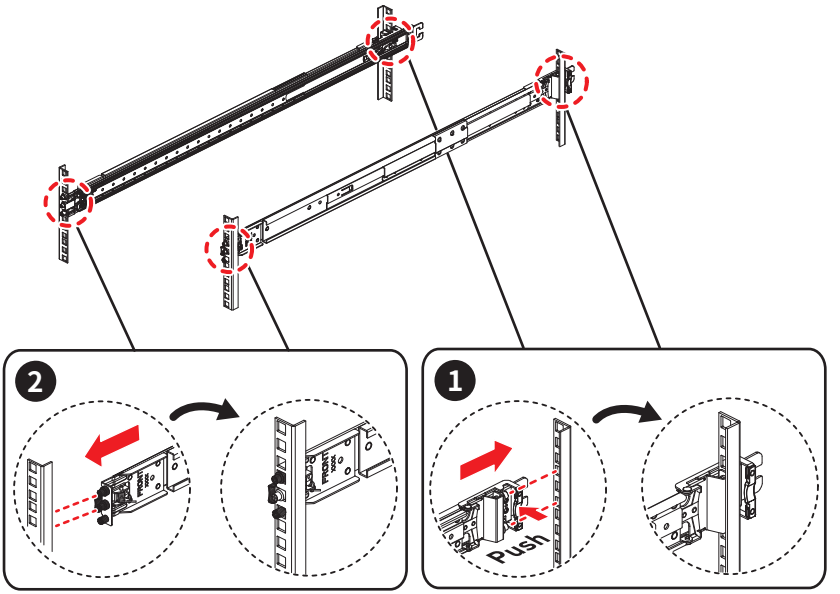


Retracting Outer Rail Bracket

Pull the latch downward to slide the middle rail back to the outer rail bracket.



Attaching Outer Rail Bracket to Rack Frame

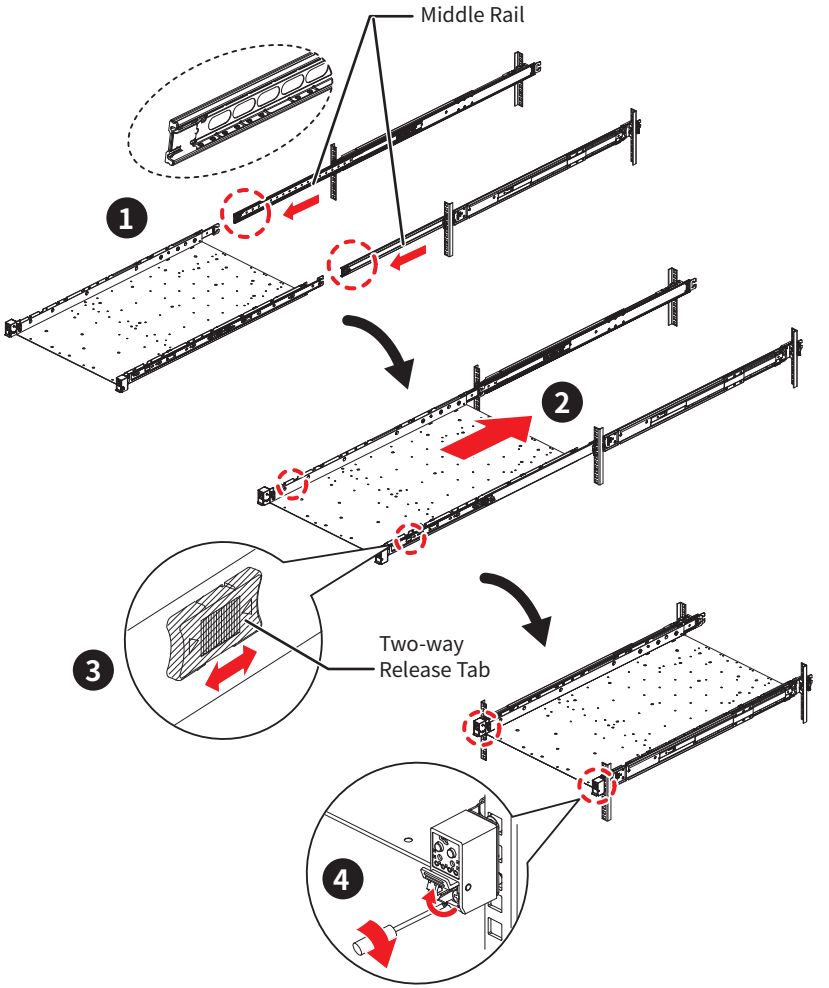


Installing System into Rack

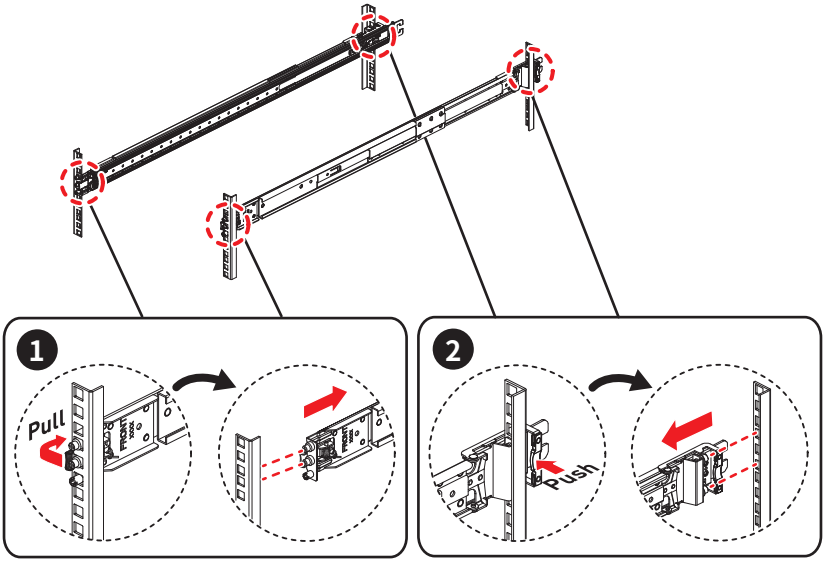
1. Pull out the middle rails till it fully extended.
2. Engage the inner rails of the system to the middle rails, then push the system forward until it stops.
3. Push the system into the rack by sliding the **two-way release tabs** forward or backward.
4. Tighten the screws to secure the system.

Important

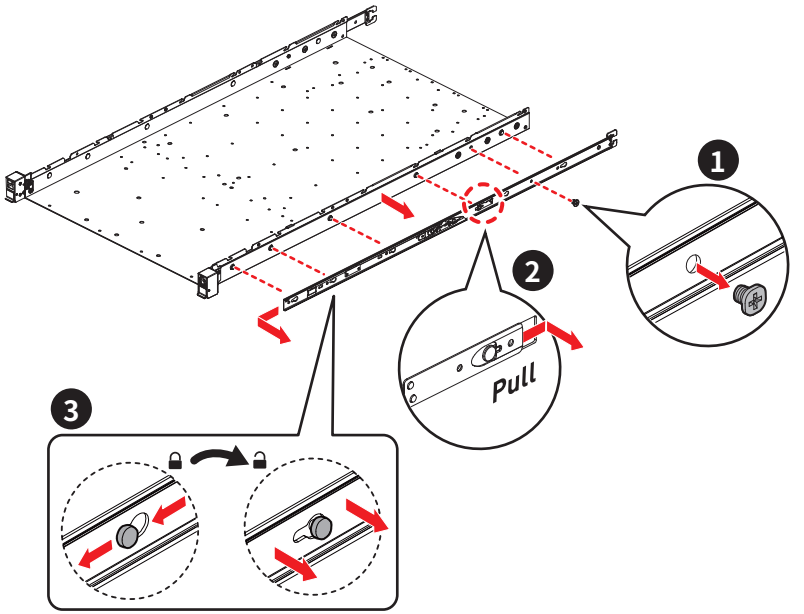
Ensure the ball bearing retainers are locked forward on each middle rail.



Detaching Outer Rail Bracket from Rack Frame



Detaching Inner Rail from System



MSI.COM

EPS.MSI.COM