



P/N: 15G065159000AK V1.0

Quick Installation Guide

ROMED8HM3



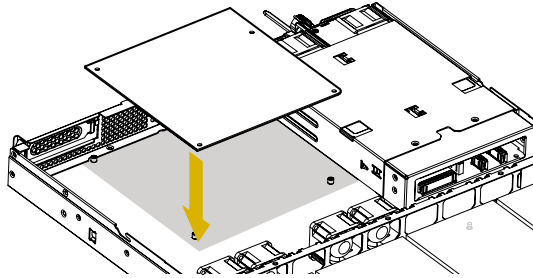
The server board User's Manual is available for download from the ASRock Rack's official website at <http://www.asrockrack.com>.

Take note of the following precautions before you install server board components or change any server board settings.

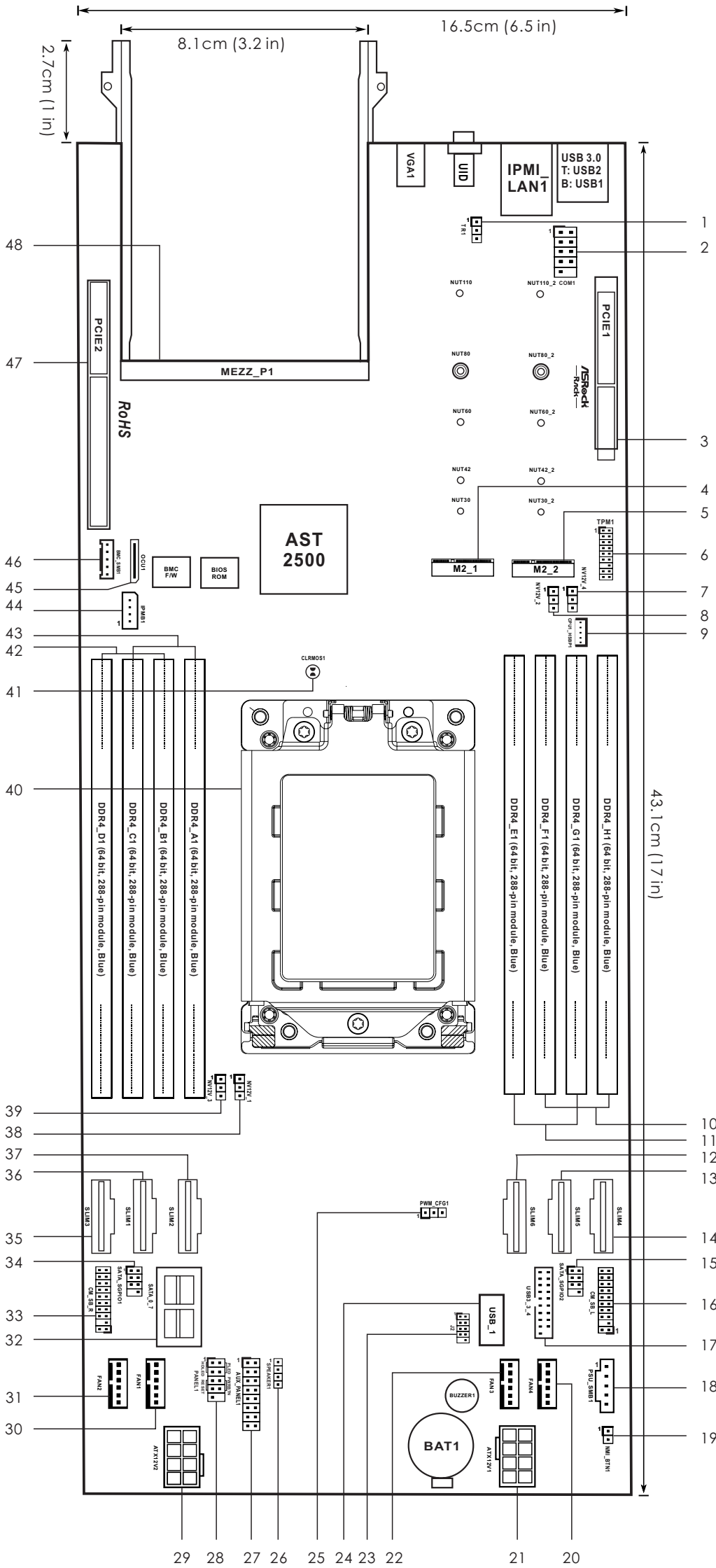
1. Unplug the power cord from the wall socket before touching any components.
2. To avoid damaging the server board's components due to static electricity, NEVER place your server board directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before you handle the components.
3. Hold components by the edges and do not touch the ICs.
4. Whenever you uninstall any component, place it on a grounded anti-static pad or in the bag that comes with the component.
5. When placing screws into the screw holes to secure the server board to the chassis, please do not over-tighten the screws! Doing so may damage the server board.

1 Install the Server Board

- 1 Insert the server board into the chassis.
- 2 Affix the screws clockwise into the mounting holes in all of the corners of the server board.
Do not over-tighten the screws



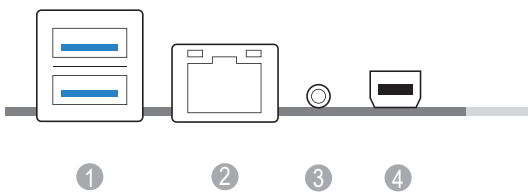
2 Motherboard Layout



No.	Description
1	Thermal Sensor Header (TR1)
2	Serial Port Header (COM1)
3	PCI Express 4.0 x16 Slot (PCIE1)
4	M.2 Socket (M2_1) (Type 2230 / 2242 / 2260 / 2280 / 22110)
5	M.2 Socket (M2_2) (Type 2230 / 2242 / 2260 / 2280 / 22110)
6	TPM Header (TPM1)
7	NVDIMM Power Mode Jumper (NV12V_4)
8	NVDIMM Power Mode Jumper (NV12V_2)
9	Backplane PCI Express Hot-Plug Connector (CPU1_HSBP1)
10	2 x 288-pin DDR4 DIMM Slots (DDR4_F1, DDR4_H1)
11	2 x 288-pin DDR4 DIMM Slots (DDR4_E1, DDR4_G1)
12	Slimline NVMe x8 Connector (SLIM6)
13	Slimline NVMe x8 Connector (SLIM5)
14	Slimline NVMe x8 Connector (SLIM4)
15	SATA SGPIO Connector (SATA_SGPIO2)
16	CM Board Standby Power Header (CM_SB_L)
17	USB 3.1 Gen1 Header (USB3_3_4)
18	PSU SMBus (PSU_SMB1)
19	Non Maskable Interrupt Button (NMI_BTN1)
20	System Fan Connector (FAN4)
21	ATX 12V Power Connector (ATX12V1)
22	System Fan Connector (FAN3)
23	Front Panel Board Header (J2)

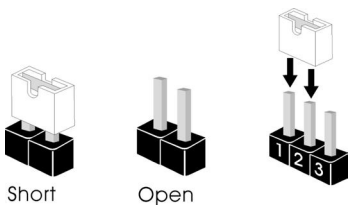
No.	Description
24	Vertical Type A USB 2.0 (USB_1)
25	PWM Configuration Header (PWM_CFG1)
26	Speaker Header (SPEAKER1)
27	Auxiliary Panel Header (AUX_PANEL1)
28	System Panel Header (PANEL1)
29	ATX 12V Power Connector (ATX12V2)
30	System Fan Connector (FAN1)
31	System Fan Connector (FAN2)
32	Mini SAS HD Connector (SATA_0_7)
33	CM Board Standby Power Header (CM_SB_R)
34	SATA SGPIO Connector (SATA_SGPIO1)
35	Slimline NVMe x8 Connector (SLIM3)
36	Slimline NVMe x8 Connector (SLIM1)
37	Slimline NVMe x8 Connector (SLIM2)
38	NVDIMM Power Mode Jumper (NV12V_1)
39	NVDIMM Power Mode Jumper (NV12V_3)
40	AMD Socket SP3 (LGA 4094) (CPU1)
41	Clear CMOS Pad (CLRMOS1)
42	2 x 288-pin DDR4 DIMM Slots (DDR4_B1, DDR4_D1)
43	2 x 288-pin DDR4 DIMM Slots (DDR4_A1, DDR4_C1)
44	Intelligent Platform Management Bus Header (IPMB1)
45	OCuLink x4 Connector (OCU1)
46	BMC SMBus Header (BMC_SMB1)
47	PCI Express 4.0 x24 Slot (PCIE2)
48	Mezzanine Card Slot (MEZZ_P1)

3 I/O Panel



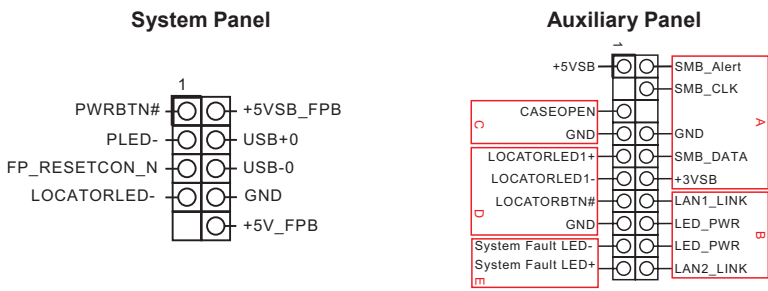
No.	Description
1	USB 3.1 Gen1 Ports (USB3_1_2)
2	LAN RJ-45 Port (IPMI_LAN1)
3	UID Switch (UID)
4	Mini DisplayPort (VGA1)

4 Jumper Cap On/Off



When the jumper cap is placed on the pins, the jumper is "Short". If no jumper cap is placed on the pins, the jumper is "Open".
The illustration shows a 3-pin jumper whose pin1 and pin2 are "Short" when a jumper cap is placed on these 2 pins.

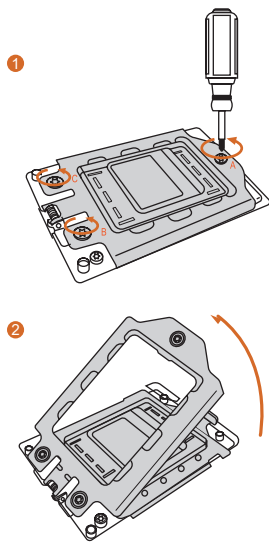
5 Headers



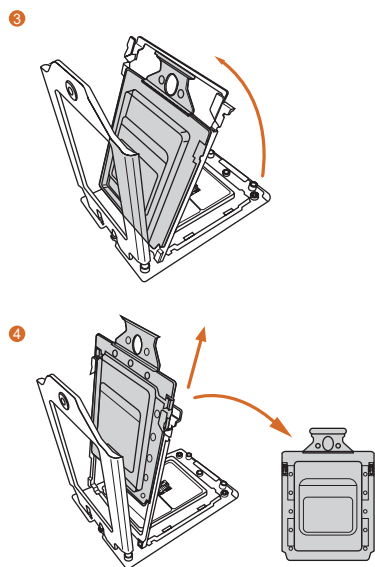


6 Install the Processor and Heatsink

Locate the three torx screws on the CPU socket and unscrew them according to the order A→B→C. Open the first retention cover.

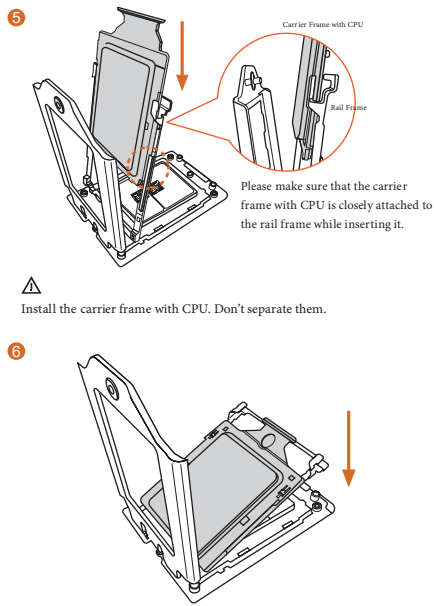


Open the second bracket. Take out the internal plastic cover.

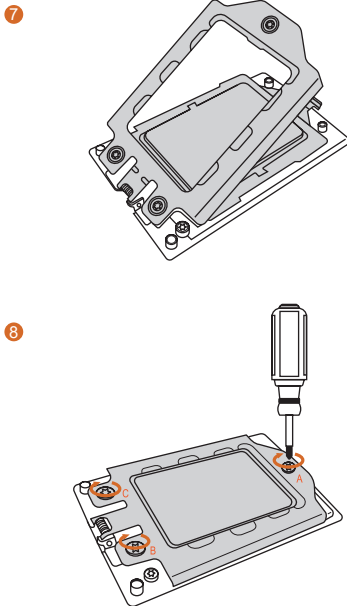


We recommend using the CPU Installation tool to avoid CPU pin-bent problem.

Install CPU along with the carrier frame, do not separate them. Please make sure the carrier frame with CPU is closely attached to the rail frame while inserting it.

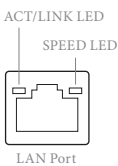


Close the bracket that holds the CPU. Close the retention cover. Fasten the torx screw according to the order A→B→C.



7 LAN Port LED Indications

IPMI LAN Port



Activity / Link LED		Speed LED	
Status	Description	Status	Description
Off	No Link	Off	10M bps connection or no link
Blinking Yellow	Data Activity	Yellow	100M bps connection
On	Link	Green	1Gbps connection

9 Install the PCIE Card (with a Riser Card)

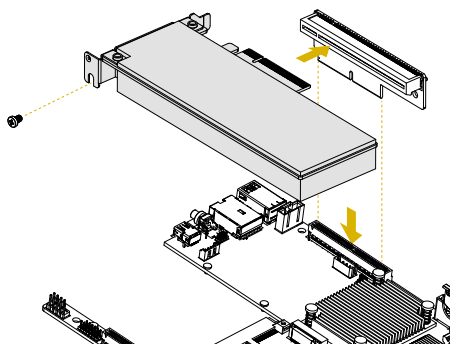
1 Remove the bracket facing the slot that you intend to use on the chassis. Keep the screw for later use.

2 Install the PCIE card to the riser card.

If you have any queries related to the riser card, please contact our local sales representative or technical support team.

3 Align the riser-card assembly connector with the slot on the system board. Press firmly until the riser-card assembly is completely seated on the slot.

4 Fasten the card to the chassis with the screw.



*Images shown are for illustrative purposes only and may differ depending on model.

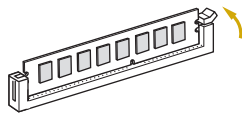
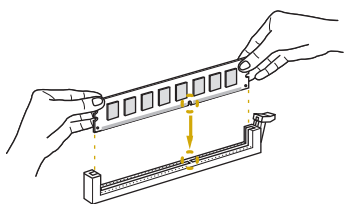
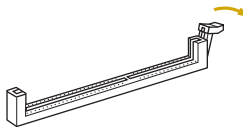
Slot	Generation	Mechanical	Electrical	Source
PCIE1	4.0	x16	x16	CPU1
PCIE2	4.0	x24	x24	CPU1

10 Install the Memory

1 Unlock a DIMM slot by pressing the module clip outward.

2 Insert the memory module.

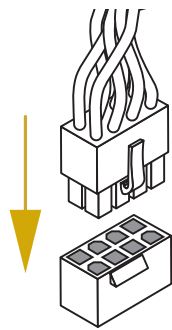
3 Lock the clip.



A single memory module should be installed in the C1 socket.

CPU1								
	A1	B1	C1	D1	E1	F1	G1	H1
1 DIMM			Populated					
2 DIMMS			Populated	Populated				
4 DIMMS	Populated	Populated					Populated	Populated
8 DIMMS	Populated	Populated	Populated	Populated	Populated	Populated	Populated	Populated

8 Install the Power Cables



CM Board Standby Power

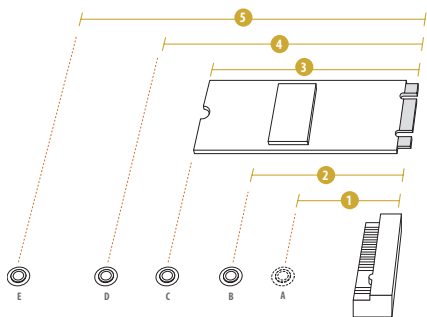
CM_SB_L	
BMC_ALERT1_N	SYS_BMC_RESET
BMC_SMBCLK1	HotSwap_PGOOD
BMC_SMBDATA1	NODE_ID_2
PSON#	NODE_ID_1
FAST_TROTTLE_N	PSU_FAN_FAIL_N
NODE_PRSN#	N/A
GND	N/A
GND	+12VSB
GND	+12VSB
GND	+12VSB

CM_SB_R	
BMC_ALERT1_N	SYS_BMC_RESET
BMC_SMBCLK1	HotSwap_PGOOD
BMC_SMBDATA1	NODE_ID_2
PSON#	NODE_ID_1
FAST_TROTTLE_N	PSU_FAN_FAIL_N
NODE_PRSN#	BMC_CM_USB_DN
GND	BMC_CM_USB_DP
GND	+12VSB
GND	+12VSB
GND	+12VSB

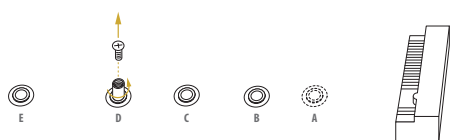
11 M.2_SSD (NGFF) Module Installation

1 Find the corresponding nut location to be used.

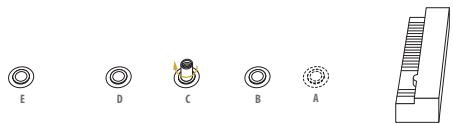
1	2	3	4	5
A	B	C	D	E
3cm	4.2cm	6cm	8cm	11cm
Type2230	Type 2242	Type2260	Type 2280	Type 22110



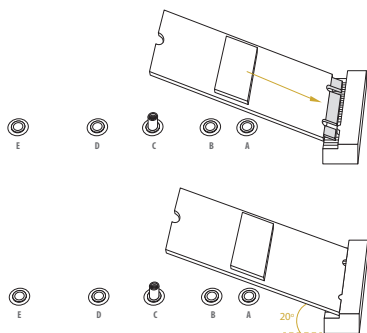
2 Move the standoff based on the module type and length.



3 Peel off the yellow protective film on the nut. Hand tighten the standoff into the desired location.



4 Gently insert the M.2 module into the slot.



5 Tighten the screw with a screwdriver to secure the module into place. Please do not overtighten the screw.

