



P/N: 15G065205000AK V1.0

Quick Installation Guide

ROME2D16HM3



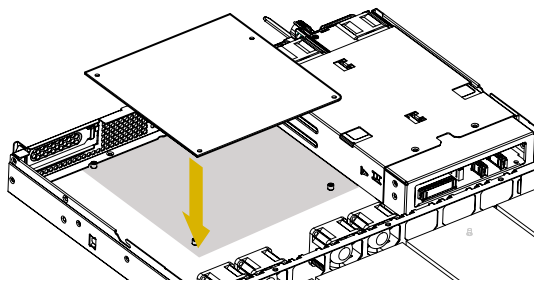
The server board User's Manual is available for download from the ASRock Rack's official website at <http://www.asrockrack.com>.

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

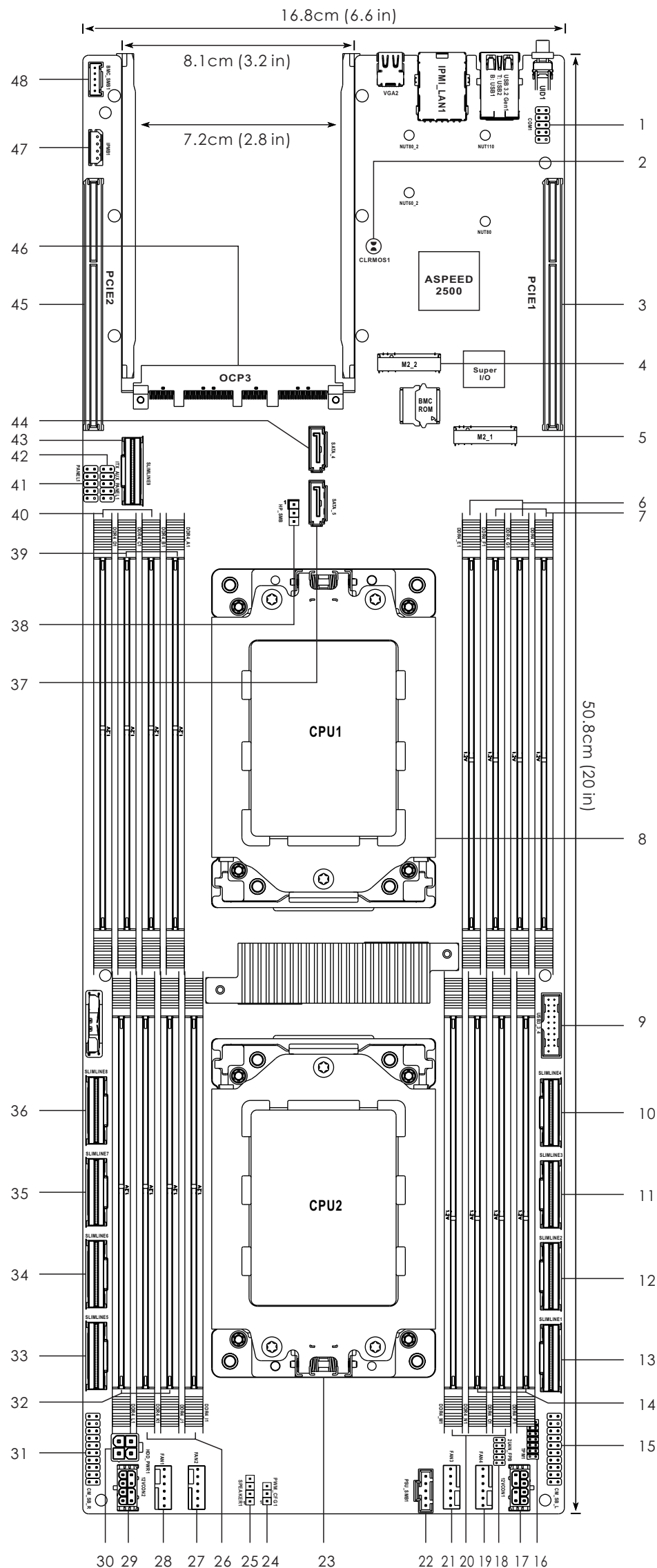
1. Unplug the power cord from the wall socket before touching any components.
2. To avoid damaging the server board's components due to static electricity, NEVER place your server board directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before 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



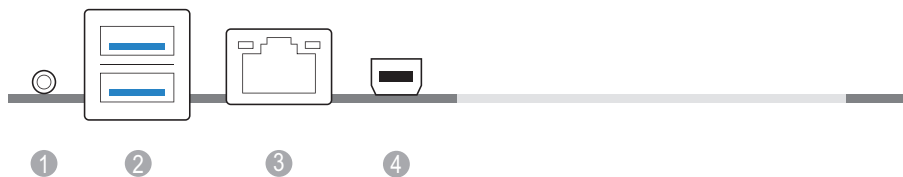
2 Motherboard Layout



No.	Description
1	Serial Port Header (COM1)
2	Clear CMOS Pad (CLRMOS1)
3	PCI Express 4.0 x24 Slot (PCIE1)
4	M.2 Socket (M2_2) (Type 2260 / 2280)
5	M.2 Socket (M2_1) (Type 2280 / 22110)
6	2 x 288-pin DDR4 DIMM Slots (DDR4_E1, DDR4_G1)
7	2 x 288-pin DDR4 DIMM Slots (DDR4_F1, DDR4_H1)
8	AMD Socket SP3 (LGA 4094) (CPU1)
9	USB 3.2 Gen1 Header (USB3_3_4)
10	Slimline SAS Connector (SLIMLINE4)
11	Slimline SAS Connector (SLIMLINE3)
12	Slimline SAS Connector (SLIMLINE2)
13	Slimline SAS Connector (SLIMLINE1)
14	2 x 288-pin DDR4 DIMM Slots (DDR4_J1, DDR4_L1)
15	CM Board Standby Power Header (CM_SB_L)
16	TPM Header (TPM1)
17	Micro-Hi Power Connector (12VCON1)
18	Front Panel Board Header (J2)
19	System Fan Connector (FAN4)
20	2 x 288-pin DDR4 DIMM Slots (DDR4_J1, DDR4_L1)
21	System Fan Connector (FAN3)
22	PSU SMBus (PSU_SMB1)
23	AMD Socket SP3 (LGA 4094) (CPU2)
24	PWM Configuration Header (PWM_CFG1)

No.	Description
25	Speaker Header (SPEAKER1)
26	2 x 288-pin DDR4 DIMM Slots (DDR4_M1, DDR4_O1)
27	System Fan Connector (FAN2)
28	System Fan Connector (FAN1)
29	Micro-Hi Power Connector (12VCON2)
30	HDD Power Connector (HDD_PWR1)
31	CM Board Standby Power Header (CM_SB_R)
32	2 x 288-pin DDR4 DIMM Slots (DDR4_N1, DDR4_P1)
33	Slimline SAS Connector (SLIMLINE5)
34	Slimline SAS Connector (SLIMLINE6)
35	Slimline SAS Connector (SLIMLINE7)
36	Slimline SAS Connector (SLIMLINE8)
37	SATA3 Connector (SATA_5)
38	Hot Plug Detect Header (HP_SMB)
39	2 x 288-pin DDR4 DIMM Slots (DDR4_A1, DDR4_C1)
40	2 x 288-pin DDR4 DIMM Slots (DDR4_B1, DDR4_D1)
41	System Panel Header (PANEL1)
42	Auxiliary Panel Header (AUX_PANEL1)
43	Slimline SAS Connector (SLIMLINE9)
44	SATA3 Connector (SATA_4)
45	PCI Express 4.0 x24 Slot (PCIE2)
46	Mezzanine Card Slot (OCP3)
47	Intelligent Platform Management Bus Header (IPMB1)
48	BMC SMBus Header (BMC_SMB1)

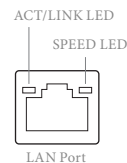
3 I/O Panel



No.	Description	No.	Description
1	UID Switch (UID)	3	LAN RJ-45 Port (IPMI_LAN1)
2	USB 3.2 Gen1 Ports (USB3_1_2)	4	Mini DisplayPort (VGA1)

4 LAN Port LED Indications

IPMI LAN Port

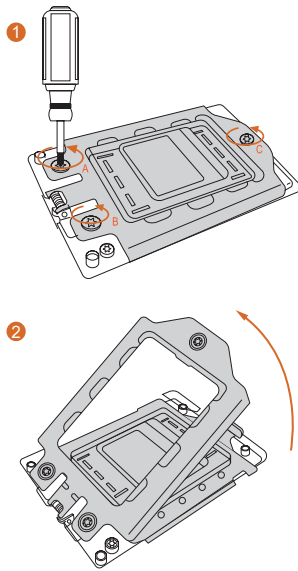


Activity / Link LED		Speed LED	
Status	Description	Status	Description
Off	No Link	Off	10M bps connection or no link
Blinking Yellow	Data Activity	Yellow	100M bps connection
On	Link	Green	1Gbps connection

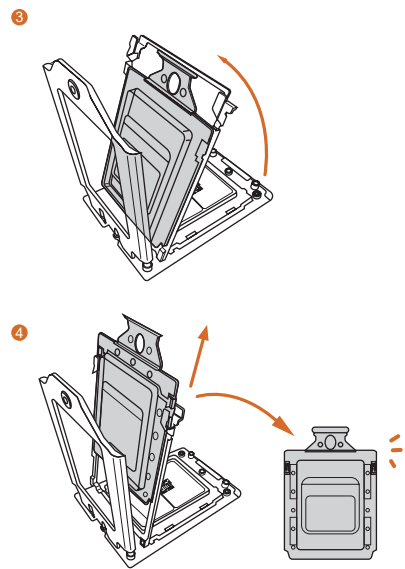


5 Install the Processor and Heatsink

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

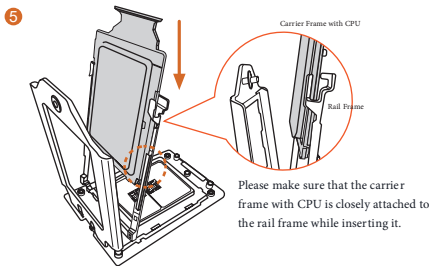


Open the second bracket. Take out the internal plastic cover.

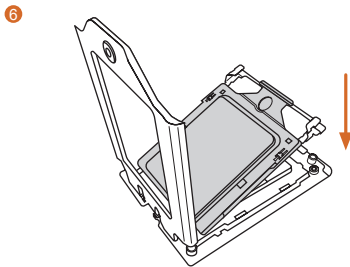


We recommend using the CPU Installation tool to avoid CPU pin-bent problem.

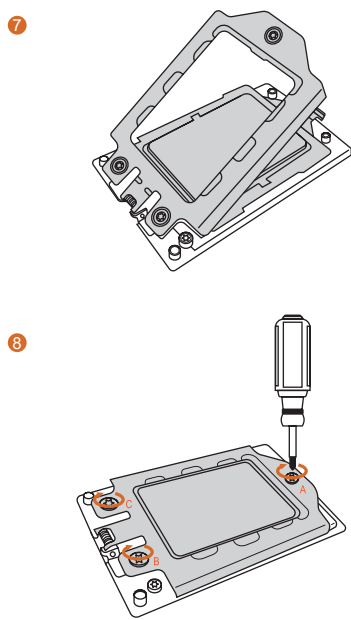
Install CPU along with the carrier frame, do not separate them. Please make sure the carrier frame with CPU is closely attached to the rail frame while inserting it.



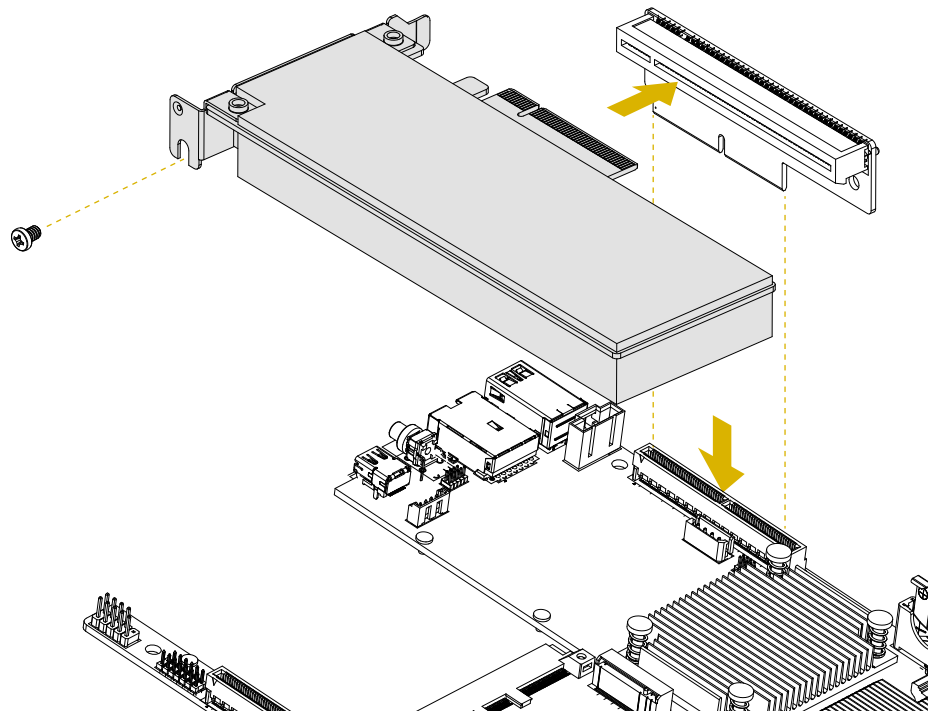
⚠ Install the carrier frame with CPU. Don't separate them.



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



6 Install the PCIE Card (with a Riser Card)



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

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

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.

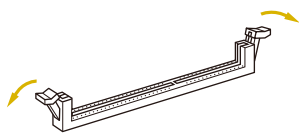
If you have any queries related to the riser card, please contact our local sales representative or technical support team.

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.

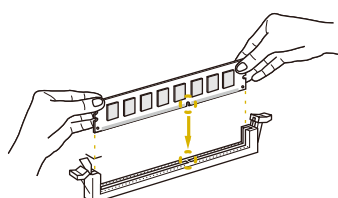
4 Fasten the card to the chassis with the screw.

9 Install the Memory

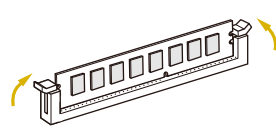
1 Unlock a DIMM slot by pressing the module clips outward.



2 Insert the memory module.

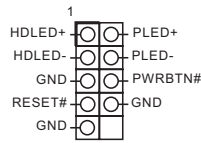


3 Lock the clips.

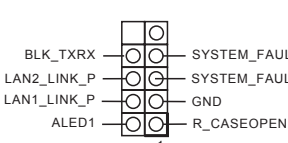


7 Panel Headers

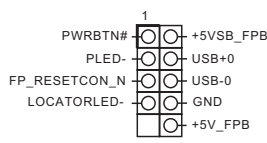
System Panel



Auxiliary Panel



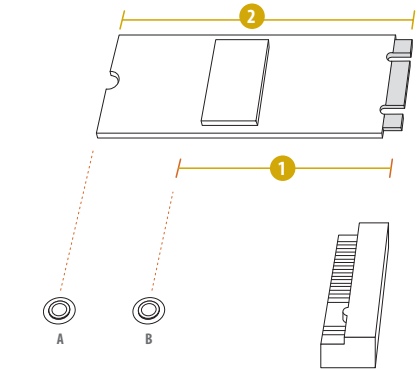
Front Panel Board



8 M.2 SSD Module Installation

1 Find the corresponding nut location to be used.

The diagrams in this documentation are for reference only.
The actual supported M.2 type varies per motherboard.



M2_1:

No.	1	2
Nut Location	A	B
PCB Length	8cm	11cm
Module Type	Type2280	Type22110

M2_2:

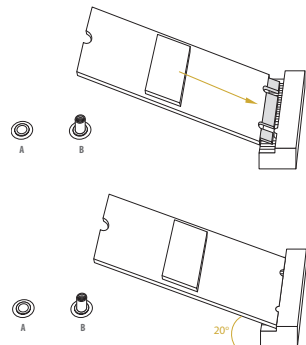
No.	1	2
Nut Location	A	B
PCB Length	6cm	8cm
Module Type	Type2260	Type2280

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

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



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



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

