P/N: 15G065180000AK V1.0

Quick Installation Guide

ROME2D32GM-2T

ASRock Rack
www.asrockrack.com

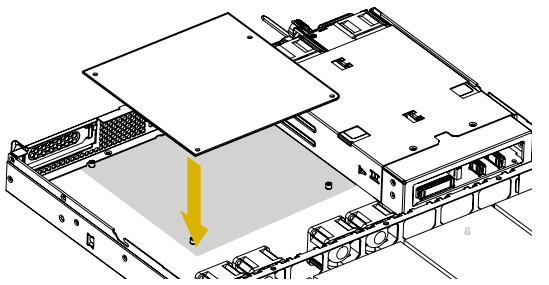
The server board User's Manual is available for download from the ASRock Rack's official website at http://www.asrockrack.com.

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

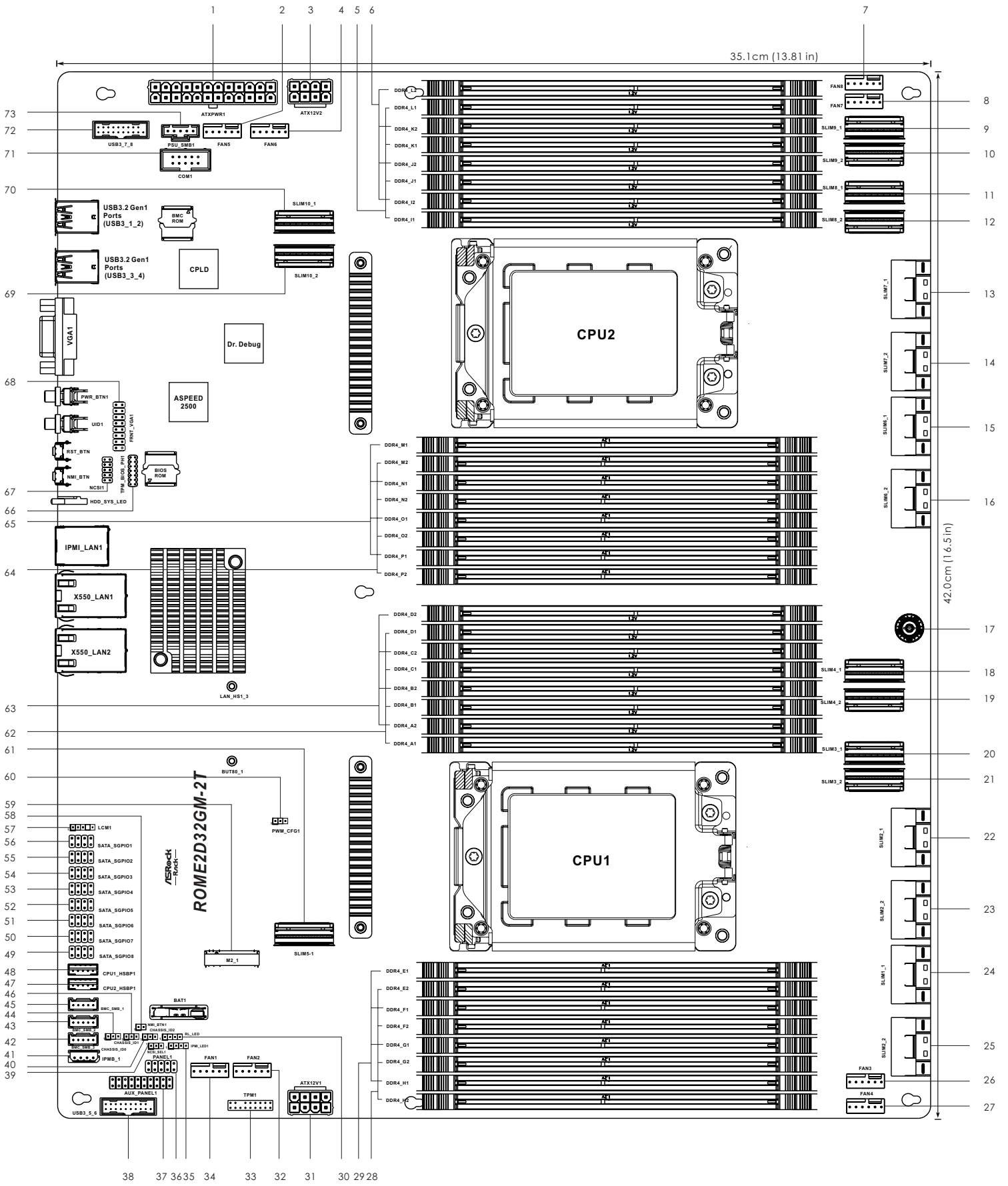
1. Unplug the power cord from the wall socket before touching any components.
2. To avoid damaging the server board's components due to static electricity, NEVER place your server board directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before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

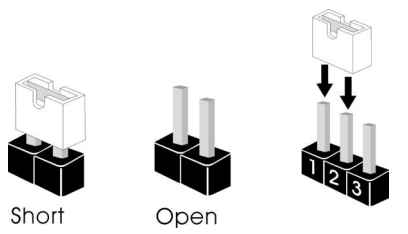


2 Motherboard Layout



No.	Description
1	ATX Power Connector (ATXPWR1)
2	System Fan Connector (FAN5)
3	ATX 12V Power Connector (ATX12V2)
4	System Fan Connector (FAN6)
5	4 x 288-pin DDR4 DIMM Slots (DDR4_I1, DDR_J1, DDR4_K1, DDR4_L1)
6	4 x 288-pin DDR4 DIMM Slots (DDR4_I2, DDR_J2, DDR4_K2, DDR4_L2)
7	System Fan Connector (FAN8)
8	System Fan Connector (FAN7)
9	SlimSAS Connector (SLIM9_1)
10	SlimSAS Connector (SLIM9_2)
11	SlimSAS Connector (SLIM8_1)
12	SlimSAS Connector (SLIM8_2)
13	SlimSAS Connector (SLIM7_1)
14	SlimSAS Connector (SLIM7_2)
15	SlimSAS Connector (SLIM6_1)
16	SlimSAS Connector (SLIM6_2)
17	Thumbscrew
18	SlimSAS Connector (SLIM4_1)
19	SlimSAS Connector (SLIM4_2)
20	SlimSAS Connector (SLIM3_1)
21	SlimSAS Connector (SLIM3_2)
22	SlimSAS Connector (SLIM2_1)
23	SlimSAS Connector (SLIM2_2)
24	SlimSAS Connector (SLIM1_1)
25	SlimSAS Connector (SLIM1_2)
26	System Fan Connector (FAN3)
27	System Fan Connector (FAN4)
28	4 x 288-pin DDR4 DIMM Slots (DDR4_E2, DDR_F2, DDR4_G2, DDR4_H2)
29	4 x 288-pin DDR4 DIMM Slots (DDR4_E1, DDR_F1, DDR4_G1, DDR4_H1)
30	Rear Panel LAN LED (RL_LED)
31	ATX 12V Power Connector (ATX12V1)
32	System Fan Connector (FAN2)
33	TPM Header (TPM1)
34	System Fan Connector (FAN1)
35	IPMI LAN LED Header (IPMI_LED1)
36	System Panel Header (PANEL1)
37	Auxiliary Panel Header (AUX_PANEL1)
38	USB 3.2 Gen1 Header (USB3_5_6)
39	NCSI Mode Jumper (NCSI_SEL1)
40	Chassis ID Jumper (CHASSIS_ID2)
41	Intelligent Platform Management Bus Header (IPMB_1)
42	BMC SMBus Header (BMC_SMB_3)
43	BMC SMBus Header (BMC_SMB_2)
44	Chassis ID Jumper (CHASSIS_ID0)
45	BMC SMBus Header (BMC_SMB_1)
46	Chassis ID Jumper (CHASSIS_ID1)
47	Backplane PCI Express Hot-Plug Connector (CPU2_HSBP1)
48	Backplane PCI Express Hot-Plug Connector (CPU1_HSBP1)
49	SATA SGPIO Connector (SATA_SGPIO8)
50	SATA SGPIO Connector (SATA_SGPIO7)
51	SATA SGPIO Connector (SATA_SGPIO6)
52	SATA SGPIO Connector (SATA_SGPIO5)
53	SATA SGPIO Connector (SATA_SGPIO4)
54	SATA SGPIO Connector (SATA_SGPIO3)
55	SATA SGPIO Connector (SATA_SGPIO2)
56	SATA SGPIO Connector (SATA_SGPIO1)
57	Liquid Crystal Module Header (LCM1)
58	Non Maskable Interrupt Button (NMI_BTN1)
59	M.2 Socket (M2_1) (Type 2280/22110)
60	PWM Configuration Header (PWM_CFG1)
61	SlimSAS Connector (SLIM5_1)
62	4 x 288-pin DDR4 DIMM Slots (DDR4_A1 DDR_B1, DDR4_C1, DDR4_D1)
63	4 x 288-pin DDR4 DIMM Slots (DDR4_A2, DDR_B2, DDR4_C2, DDR4_D2)
64	4 x 288-pin DDR4 DIMM Slots (DDR4_M2, DDR_N2, DDR4_O2, DDR4_P2)
65	4 x 288-pin DDR4 DIMM Slots (DDR4_M1, DDR_N1, DDR4_O1, DDR4_P1)
66	TPM-SPI Header (TPM_BIOS_PH1)
67	NCSI Header (NCSI1)
68	Front VGA Header (FRONT_VGA1)
69	SlimSAS Connector (SLIM10_2)
70	SlimSAS Connector (SLIM10_1)
71	COM Port Header (COM1)
72	USB 3.2 Gen1 Header (USB3_7_8)
73	PSU SMBus (PSU_SMB1)

3 Jumper Cap On/Off

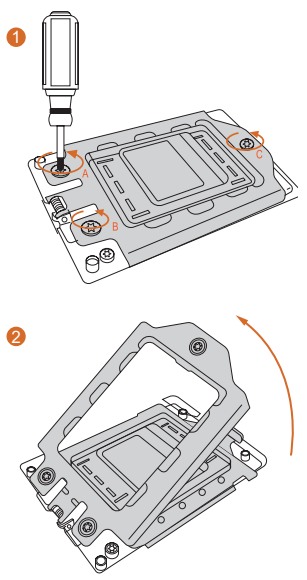


When the jumper cap is placed on the pins, the jumper is "Short". If no jumper cap is placed on the pins, the jumper is "Open".

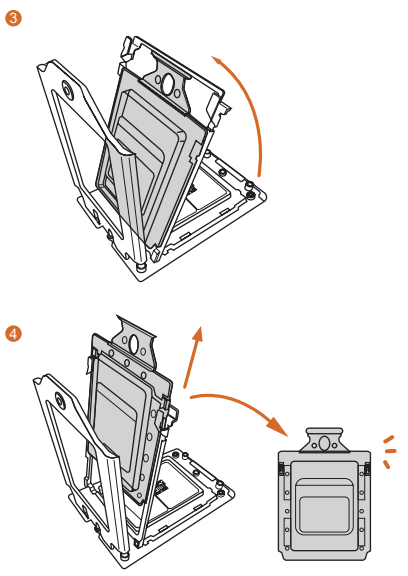
The illustration shows a 3-pin jumper whose pin1 and pin2 are "Short" when a jumper cap is placed on these 2 pins.

4 Install the Processor and Heatsink

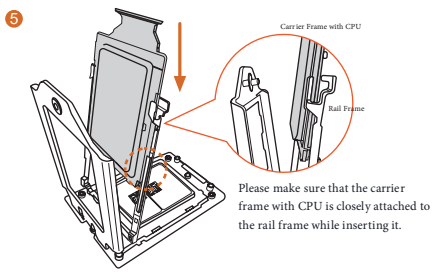
Locate the three torx screws on the CPU socket and unscrew them according to the order A→B→C. Open the first retention cover.



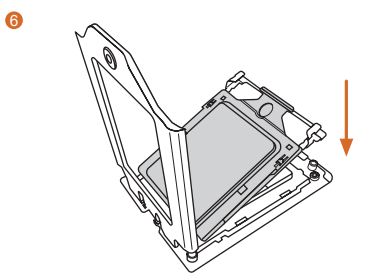
Open the second bracket. Take out the internal plastic cover.



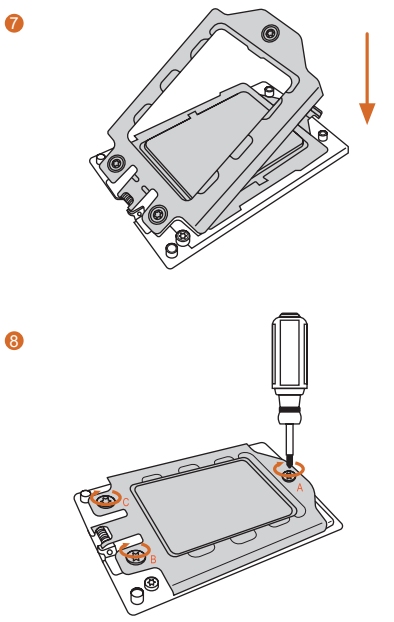
Install CPU along with the carrier frame, do not separate them. Please make sure the carrier frame with CPU is closely attached to the rail frame while inserting it.



⚠ 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.



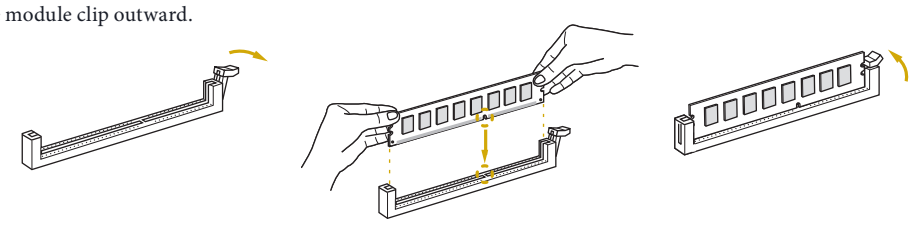
We recommend using the CPU Installation tool to avoid CPU pin-bent problem.

5 Install the Memory

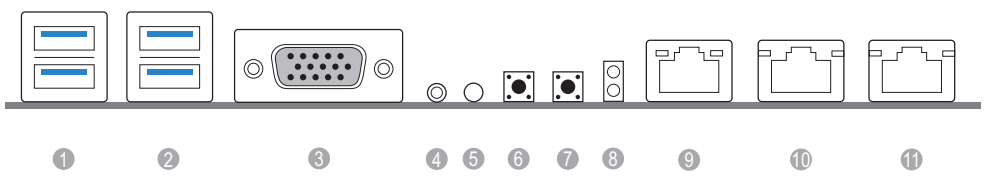
1 Unlock a DIMM slot by pressing the module clip outward.

2 Insert the memory module.

3 Lock the clip.



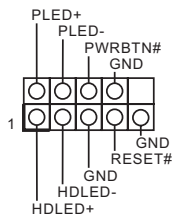
6 I/O Panel



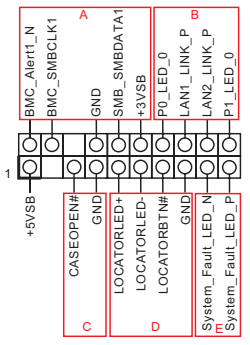
No.	Description	No.	Description
1	USB 3.2 Gen1 Ports (USB3_1_2)	7	NMI Button (NMI_BTN)
2	USB 3.2 Gen1 Ports (USB3_3_4)	8	HDD/System Fault LED (HDD_SYS_LED)
3	VGA Header (VGA1)	9	IPMI LAN Header (IPMI_LAN1)
4	UID Switch (UID)	10	10G LAN RJ-45 Port (X550_LAN1)
5	Power Switch/LED (PWR_BTN1)	11	10G LAN RJ-45 Port (X550_LAN2)
6	Reset Button (RST_BTN)		

7 Panel Headers

System Panel

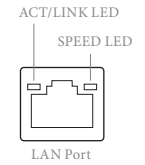


Auxiliary Panel



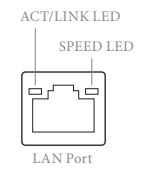
8 LAN Port LED Indications

IPMI LAN Port



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

10G LAN Port

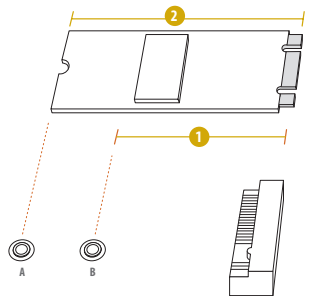


Activity / Link LED		Speed LED	
Status	**Description**	**Status**	**Description**
Off	No Link	Off	100Mbps connection or no link
Blinking Yellow	Data Activity	Yellow	1Gbps connection
On	Link	Green	10Gbps connection

9 M.2_SSD (NGFF) Module Installation

1 Find the corresponding nut location to be used.

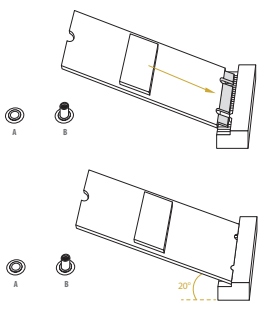
No.	1	2
Nut Location	B	A
PCB Length	8cm	11cm
Module Type	Type2280	Type22110



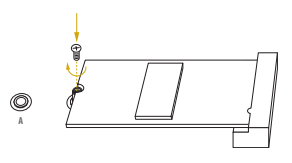
2 Move the standoff based on the module type and length.

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.



10 Install the Power Cables