



P/N: 15G065270000AK V1.0

Quick Installation Guide

SPC741D8QM3-NL | SPC741D8QM3-2T/X550



SPC741D8QM3-NL SPC741D8QM3-2T/X550

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.

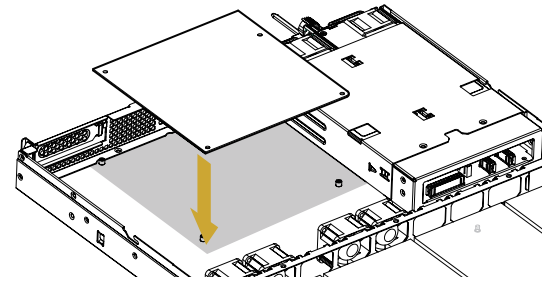
1. Unplug the power cord from the wall socket before touching any components.
2. To avoid damaging the server board's components due to static electricity, NEVER place your server board directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before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

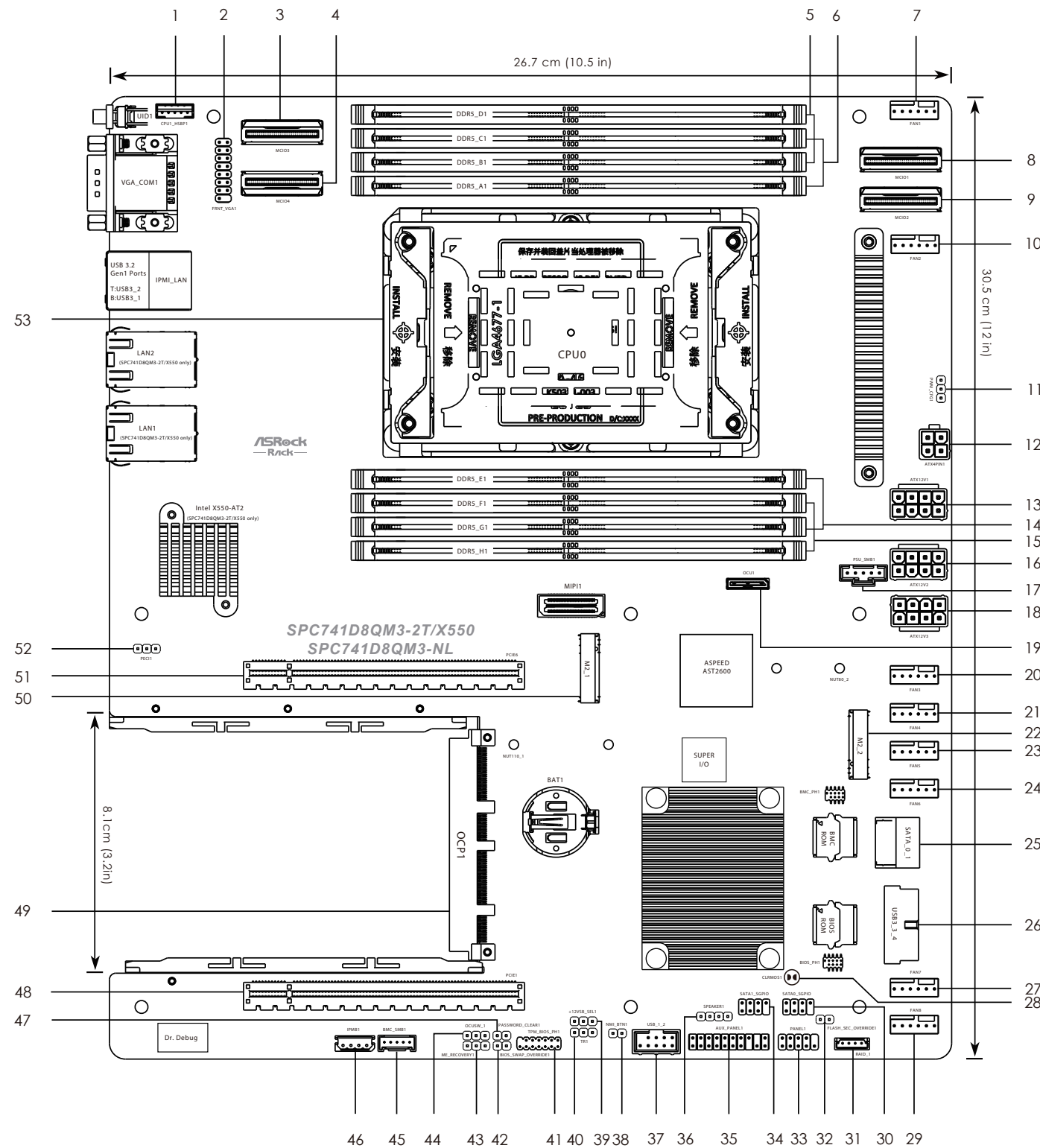
- 1 Insert the server board into the chassis.

- 2 Affix the screws clockwise into the mounting holes in all of the corners of the server board.

Do not over-tighten the screws

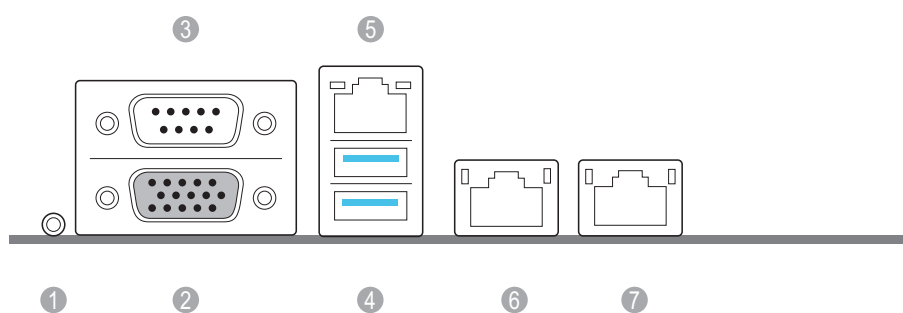


2 Motherboard Layout



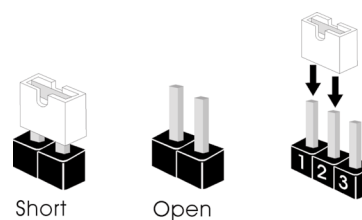
No.	Description
1	Backplane PCI Express Hot-Plug Connector (CPU1_HSBP1)
2	Front VGA Header (FRNT_VGA1)
3	Mini Cool Edge IO x8 Connector (MCIO3)
4	Mini Cool Edge IO x8 Connector (MCIO4)
5	2 x 288-pin DDR5 DIMM Slots (DDR5_B1, DDR5_D1)
6	2 x 288-pin DDR5 DIMM Slots (DDR5_A1, DDR5_C1)
7	System Fan Connector (FAN1)
8	Mini Cool Edge IO x8 Connector (MCIO1)
9	Mini Cool Edge IO x8 Connector (MCIO2)
10	System Fan Connector (FAN2)
11	PWM Configuration Header (PWM_CFG1)
12	Micro-Fit ATX 4Pin Power Connector (ATX4PIN1)
13	ATX 12V Power Connector (ATX12V1)
14	2 x 288-pin DDR5 DIMM Slots (DDR5_E1, DDR5_G1)
15	2 x 288-pin DDR5 DIMM Slots (DDR5_F1, DDR5_H1)
16	ATX 12V Power Connector (ATX12V2)
17	PSU SMBus Header (PSU_SMB1)
18	ATX 12V Power Connector (ATX12V3)
19	OCuLink Connector (OCU1)
20	System Fan Connector (FAN3)
21	System Fan Connector (FAN4)
22	M-key M.2 Socket (M2_2) (Type 22110/2280)
23	System Fan Connector (FAN5)
24	System Fan Connector (FAN6)
25	Serial ATA3 Connectors (SATA_1)(Upper), (SATA_0)(Lower)
26	USB 3.2 Gen1 Header (USB3_3_4)
27	System Fan Connector (FAN7)
28	Clear CMOS Pad (CLRMOS1)
29	System Fan Connector (FAN8)
30	SATA SGPIO Connector (SATA0_SGPIO)
31	Virtual RAID On CPU Header (RAID_1)
32	Flash Override Jumper (FLASH_SEC_OVERRIDE1)
33	System Panel Header (PANEL1)
34	SATA SGPIO Connector (SATA1_SGPIO)
35	Auxiliary Panel Header (AUX_PANEL1)
36	Speaker Header (SPEAKER1)
37	USB 2.0 Header (USB_1_2)
38	Non Maskable Interrupt Button (NMI_BTN1)
39	OCP3 +12VSB Power Jumper (+12VSB_SEL1)
40	Thermal Sensor Header (TR1)
41	SPI TPM Header (TPM_BIOS_PH1)
42	BIOS Swap Override Jumper (BIOS_SWAP_OVERRIDE1)
43	ME Recovery Jumper (ME_RECOVERY1)
44	Switch SATA and PCIE Jumper (OCUSW_1)
45	BMC SMBus Header (BMC_SMB1)
46	Intelligent Platform Management Bus Header (IPMB1)
47	Password Reset Jumper (PASSWORD_CLEAR1)
48	PCI Express 4.0 x16 Slot (PCIE1)
49	OCP 3.0 Gen5 x16 NIC Slot (OCPI)
50	M-key M.2 Socket (M2_1) (Type 2280/2260)
51	PCI Express 5.0 x16 Slot (PCIE6)
52	CPU PECI Mode Jumper (PECI1)
53	LGA 4677 CPU Socket (CPU0)

3 I/O Panel



No.	Description	No.	Description
1	UID Switch (UID1)	5	LAN RJ-45 Port (IPMI_LAN)
2	VGA Port (VGA)	6	10G LAN RJ-45 Port (LAN2) (SPC741D8QM3-2T/X550 only)
3	Serial Port (COM1)	7	10G LAN RJ-45 Port (LAN1) (SPC741D8QM3-2T/X550 only)
4	USB 3.2 Gen1 Ports (USB3_1_2)		

4 Jumper Settings

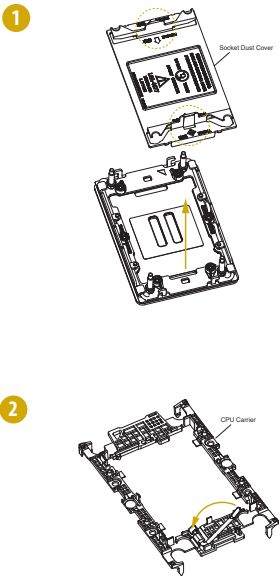


When the jumper cap is placed on the pins, the jumper is "Short". If no jumper cap is placed on the pins, the jumper is "Open".

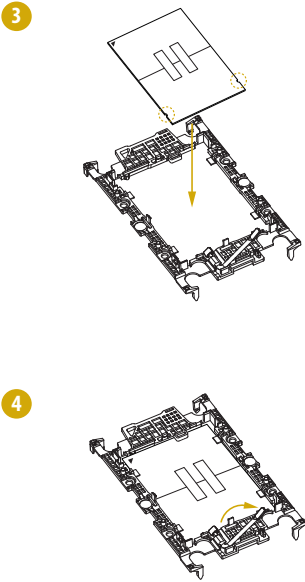
The illustration shows a 3-pin jumper whose pin1 and pin2 are "Short" when a jumper cap is placed on these 2 pins.

5 Install the Processor and Heatsink

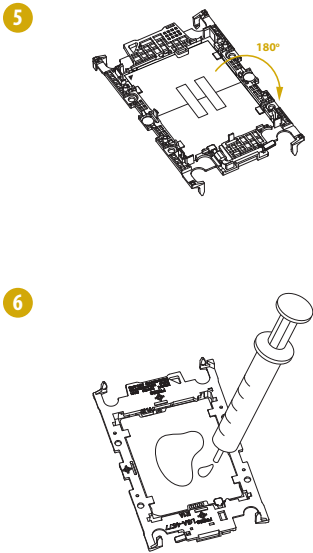
Remove the CPU socket cover and open the socket lever.



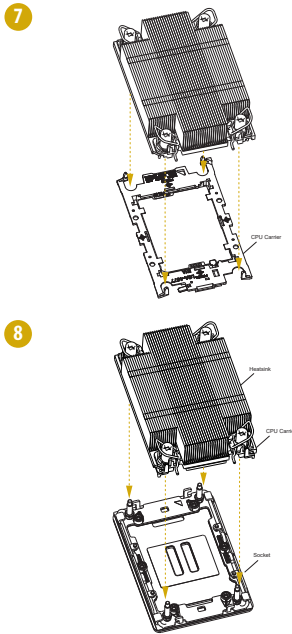
Align and install the processor on the carrier and make sure the arrow is located in the correct direction. Close the socket lever.



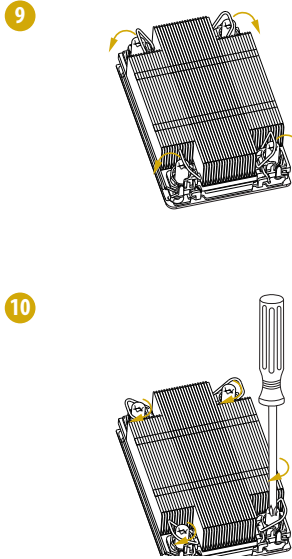
Carefully flip the carrier assembly. Apply a thermal paste.



Install the heatsink to the CPU carrier. Then install the heatsink and CPU carrier to the socket.



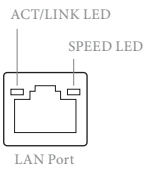
Tighten the corner fasteners. Secure the heastink to the motherboard with a screwdriver.



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

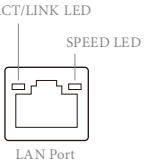
6 LAN Port LED Indications

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

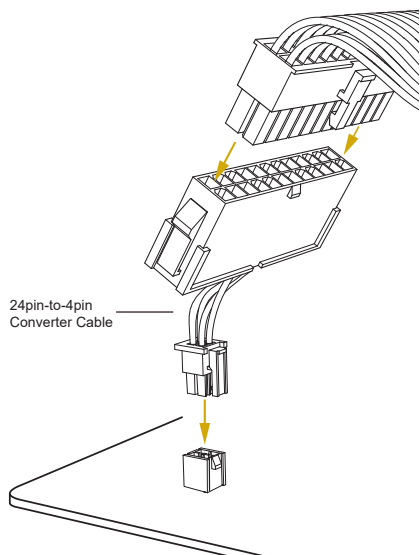
10G LAN Port



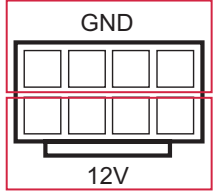
Activity / Link LED		Speed LED	
Status	Description	Status	Description
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Blinking Yellow	Data Activity	Orange	1Gbps connection
On	Link	Green	10Gbps connection

(SPC741D8QM3-2T/X550 only)

8 Install the Power Cables

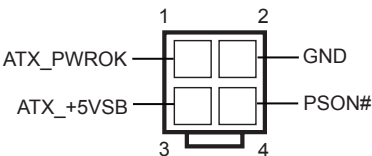


ATX12V



ATX4PIN1

Micro-Fit Power Connector

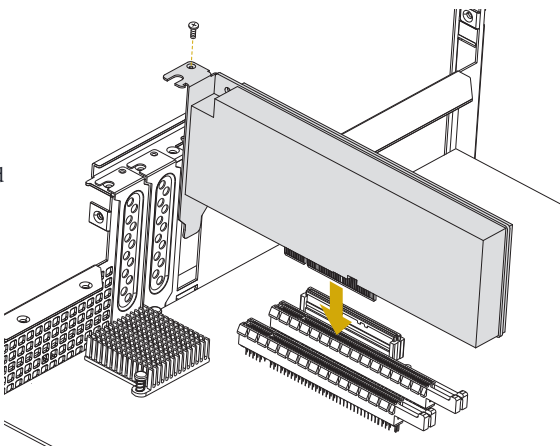


9 Install the PCIE Card

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

2 Align the card connector with the slot and press firmly until the card is completely seated on the slot.

3 Fasten the card to the chassis with the screw.



7 M.2 SSD Module Installation

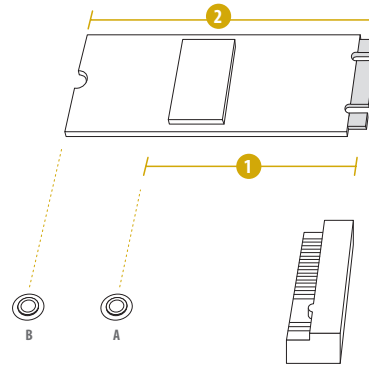
1 Find the corresponding nut location to be used.

M2_1:

1	2
A	B
6cm	8cm
Type	Type
2260	2280

M2_2:

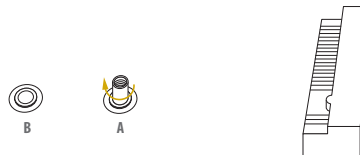
1	2
A	B
8cm	11cm
Type	Type
2280	22110



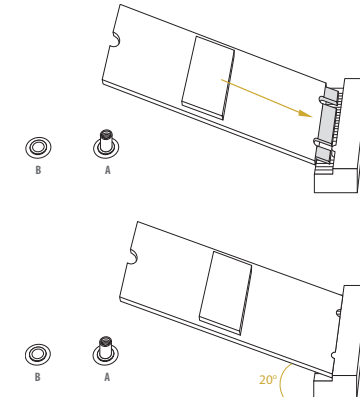
2 Move the standoff based on the module type and length.



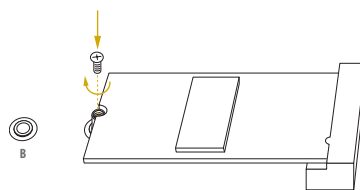
3 Peel off the yellow protective film on the nut. Hand tighten the standoff into the desired location.



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

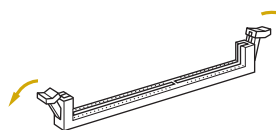


5 Tighten the screw with a screwdriver to secure the module into place. Please do not overtighten the screw.

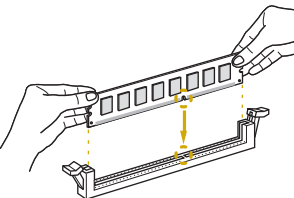


10 Install the Memory

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



2 Insert the memory module.



3 Lock the clips.

