

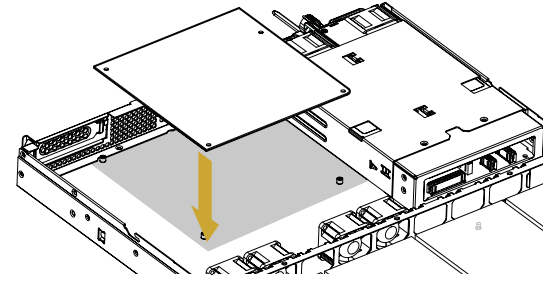
The server board User's Manual is available for download from the ASRock Rack's official website at <http://www.asrockrack.com>.

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

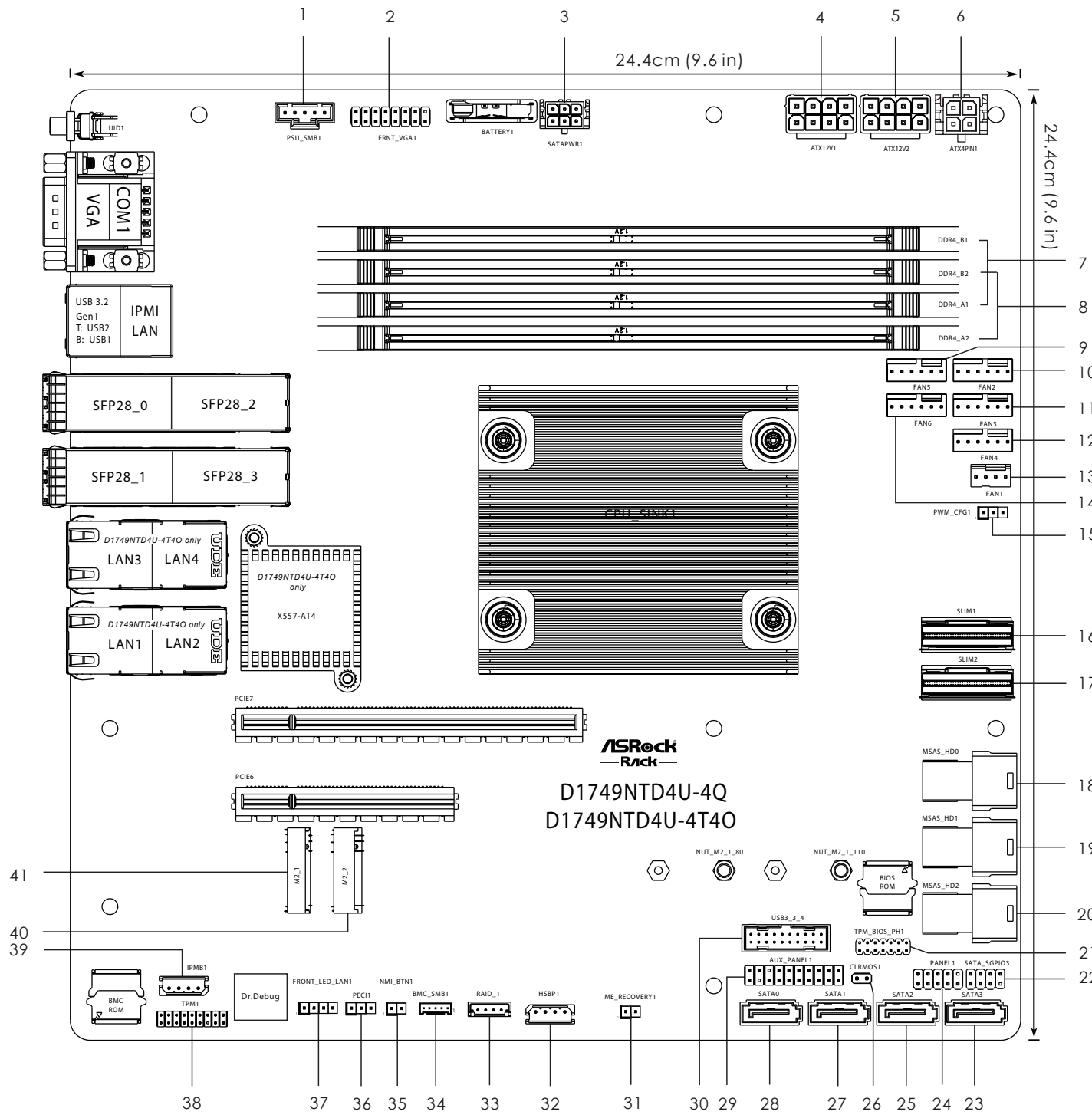
1. Unplug the power cord from the wall socket before touching any components.
2. To avoid damaging the server board's components due to static electricity, NEVER place the server board directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before handling the components.
3. Hold components by the edges and do not touch the ICs.
4. Whenever 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

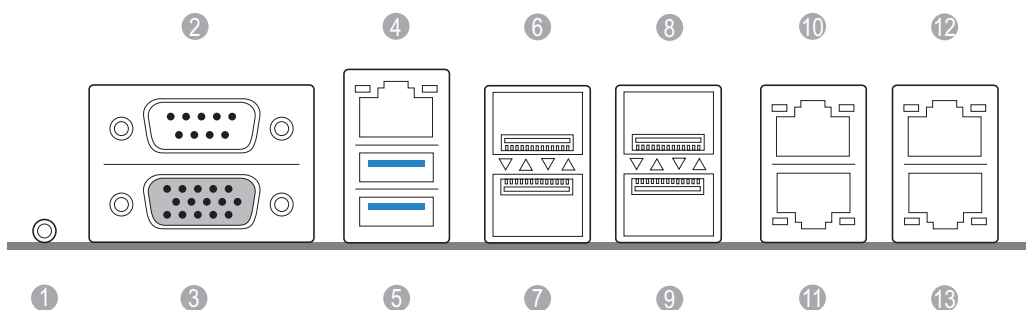


2 Motherboard Layout



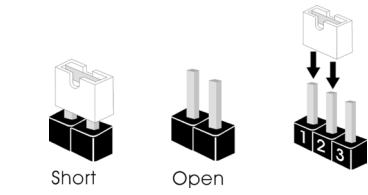
No.	Description
1	PSU SMBus (PSU_SMB1)
2	Front VGA Header (FRNT_VGA1)
3	SATA Power Connector (DC-IN Mode) (SATAPWR1)
4	ATX 12V Power Connector (ATX12V1)
5	ATX 12V Power Connector (ATX12V2)
6	Micro-Fit Power Connector (ATX4PIN1)
7	2 x 288-pin DDR4 DIMM Slots (DDR4_A1, DDR4_B1)
8	2 x 288-pin DDR4 DIMM Slots (DDR4_A2, DDR4_B2)
9	System Fan Connector (FAN5)
10	System Fan Connector (FAN2)
11	System Fan Connector (FAN3)
12	System Fan Connector (FAN4)
13	CPU Fan Connector (FAN1)
14	System Fan Connector (FAN6)
15	PWM Configuration Header (PWM_CFG1)
16	Slimline NVMe Connector (SLIM1)
17	Slimline NVMe Connector (SLIM2)
18	MINI-SAS HD Connector (MSAS_HD0)
19	MINI-SAS HD Connector (MSAS_HD1)
20	MINI-SAS HD Connector (MSAS_HD2)
21	TPM-SPI Header (TPM_BIOS_PH1)
22	SATA SGPIO Connector (SATA_SGPIO3)
23	SATA3 Connector (SATA3)
24	System Panel Header (PANEL1)
25	SATA3 Connector (SATA2)
26	Clear CMOS Jumper (CLRMOS1)
27	SATA3 Connector (SATA1)
28	SATA3 Connector (SATA0)
29	Auxiliary Panel Header (AUX_PANEL1)
30	USB 3.2 Gen1 Header (USB3_3_4)
31	ME Recovery Jumper (ME_RECOVERY1)
32	Backplane PCI Express Hot-Plug Connector (HSBP1)
33	Virtual RAID On CPU Header (RAID_1)
34	BMC SMB Header (BMC_SMB1)
35	Non Maskable Interrupt Button (NMI_BTN1)
36	CPU Peci Mode Jumper (PECI1)
37	Front LAN LED Connector (FRONT_LED_LAN1)
38	External 80 Port Debug Header (TPM1)
39	Intelligent Platform Management Bus Header (IPMB1)
40	M.2 Socket (M2_2) (Type 2280/22110)
41	M.2 Socket (M2_1) (Type 2280/22110)

3 I/O Panel



No.	Description	No.	Description
1	UID Switch (UID1)	8	10/25G SFP28 (Fiber) (SFP28_3)
2	COM Port (COM1)	9	10/25G SFP28 (Fiber) (SFP28_1)
3	VGA Port (VGA)	10	10G LAN RJ-45 Port (LAN4) (D1749NTD4U-4T4O only)
4	LAN RJ-45 Port (IPMI_LAN)	11	10G LAN RJ-45 Port (LAN3) (D1749NTD4U-4T4O only)
5	USB 3.2 Gen1 Ports (USB3_1_2)	12	10G LAN RJ-45 Port (LAN2) (D1749NTD4U-4T4O only)
6	10/25G SFP28 (Fiber) (SFP28_2)	13	10G LAN RJ-45 Port (LAN1) (D1749NTD4U-4T4O only)
7	10/25G SFP28 (Fiber) (SFP28_0)		

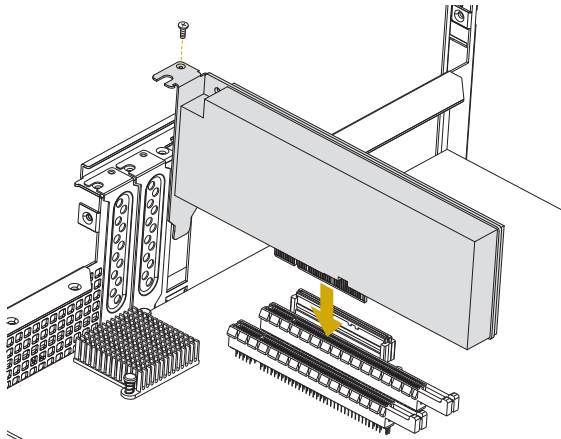
4 Jumper Cap On/Off



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.

6 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.

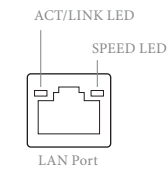


*Images shown are for illustrative purposes only and may differ depending on model.

Slot	Generation	Mechanical	Electrical	Source
PCIE6	3.0	x8	x8	CPU
PCIE7	4.0	x16	x16	CPU

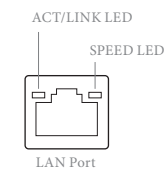
8 LAN Port LED Indications

IPMI LAN Port



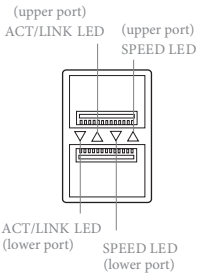
Activity / Link LED		Speed LED	
Status	Description	Status	Description
Off	No Link	Off	10Mbps connection or no link
Blinking Green	Data Activity	Yellow	100Mbps connection
On	Link	Green	1Gbps connection

10G LAN Port



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

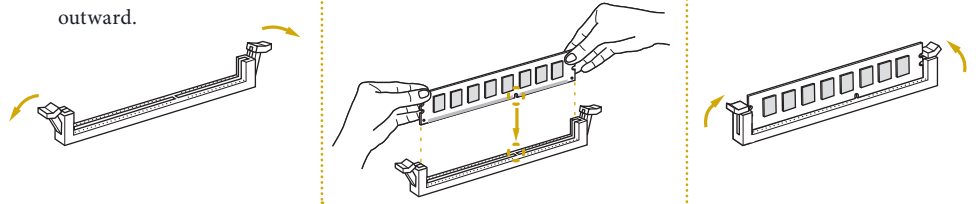
10/25G SFP28 Ports



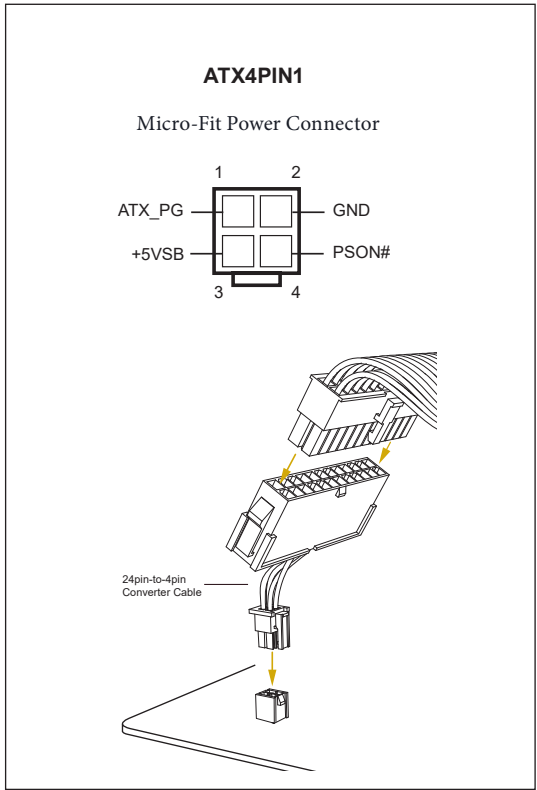
Activity / Link LED		Speed LED	
Status	Description	Status	Description
Off	No Link	Off	100Mbps connection or no link
Blinking Green	Data Activity	Orange	1Gbps connection
On	Link	Green	D1749NTD4U-4T4O: 10Gbps connection D1749NTD4U-4Q: 25Gbps connection

9 Install the Memory

- 1 Unlock a DIMM slot by pressing the module clips outward.
- 2 Insert the memory module.
- 3 Lock the clips.



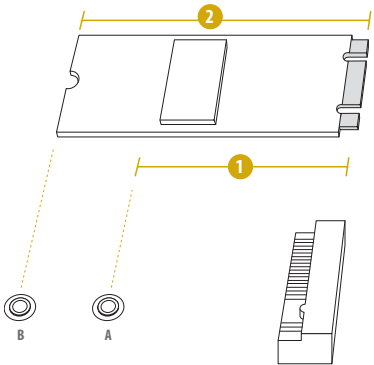
5 Power Connectors



7 M.2 SSD Module Installation

- 1 Find the corresponding nut location to be used.

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



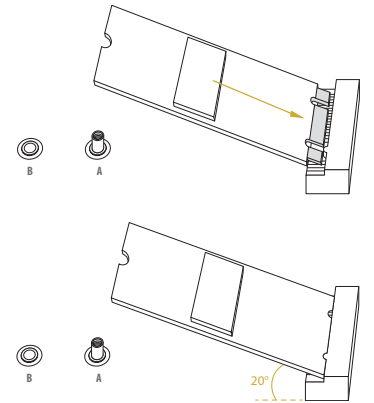
- 2 Move the standoff based on the module type and length.



- 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.

