



P/N: 15G065298001AK V1.1

Quick Installation Guide

W790D8UD-1L1N2T/BCM | W790D8UD-1L1N



W790D8UD-1L1N2T/BCM



W790D8UD-1L1N

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

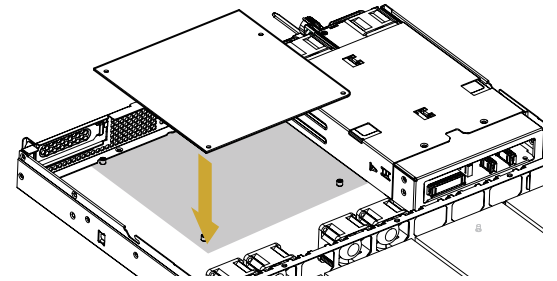
Take note of the following precautions before you install server board components or change any server board settings.

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 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.

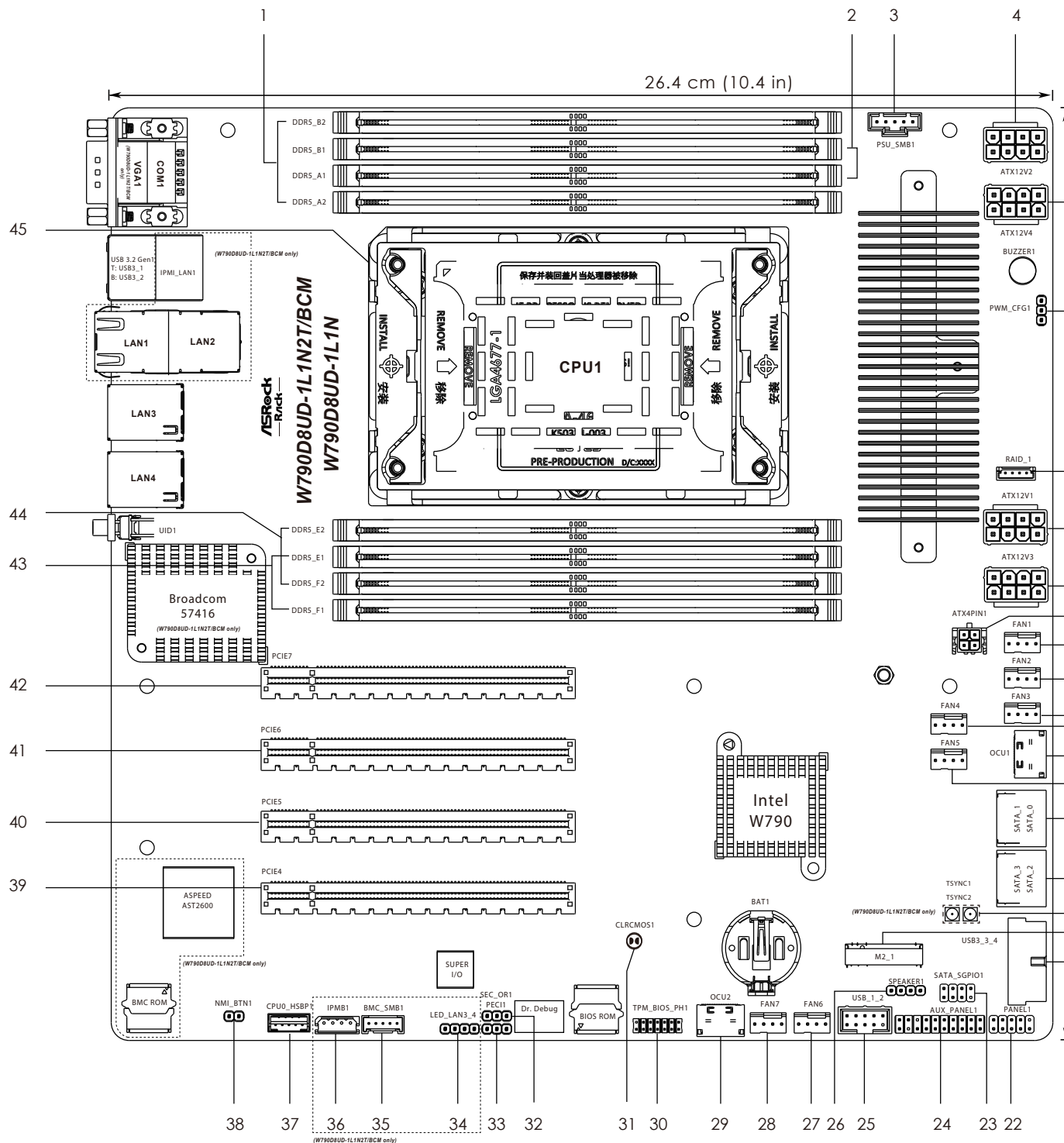
1 Install the Server Board

- 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

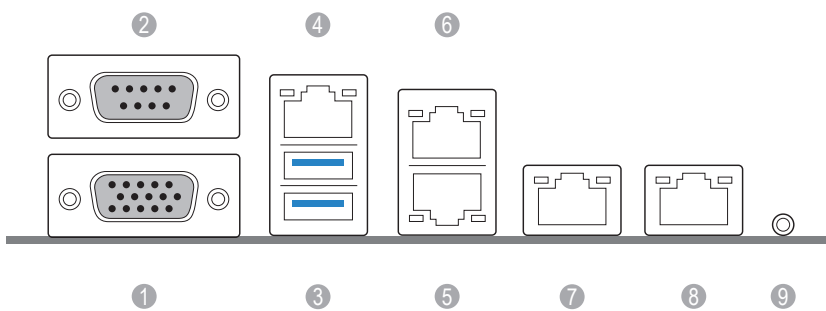


2 Motherboard Layout



No.	Description
1	2 x 288-pin DDR5 DIMM Slots (DDR5_A1, DDR5_B1)
2	2 x 288-pin DDR5 DIMM Slots (DDR5_A2, DDR5_B2)
3	PSU SMBus Header (PSU_SMB1)
4	ATX 12V Power Connector (ATX12V2)
5	ATX 12V Power Connector (ATX12V4)
6	PWM Configuration Header (PWM_CFG1)
7	Virtual RAID On CPU Header (RAID_1)
8	ATX 12V Power Connector (ATX12V1)
9	ATX 12V Power Connector (ATX12V3)
10	Micro-Fit ATX 4Pin Power Connector (ATX4PIN1)
11	System Fan Connector (FAN1)
12	System Fan Connector (FAN2)
13	System Fan Connector (FAN3)
14	System Fan Connector (FAN4)
15	OCuLink x4 Connector (OCU1)
16	System Fan Connector (FAN5)
17	SATA3 Connectors (SATA_1)(Upper), (SATA_0)(Lower)
18	SATA3 Connectors (SATA_3)(Upper), (SATA_2)(Lower)
19	TGPIO Headers (TSYNC1, TSYNC2) (W790D8UD-1L1N2T/BCM only)
20	M-key M.2 Socket (M2_1) (Type 2280)
21	USB 3.2 Gen1 Header (USB3_3_4)
22	System Panel Header (PANEL1)
23	SATA SGPIO Header (SATA_SGPIO1)
24	Auxiliary Panel Header (AUX_PANEL1)
25	USB 2.0 Header (USB_1_2)
26	Speaker Header (SPEAKER1)
27	System Fan Connector (FAN6)
28	System Fan Connector (FAN7)
29	OCuLink x4 Connector (OCU2)
30	SPI TPM Header (TPM_BIOS_PH1)
31	Clear CMOS Pad (CLRCMOS1)
32	Security Override Jumper (SEC_OR1)
33	CPU PECI Mode Jumper (PECI1)
34	LAN LED Connector (LED_LAN3_4) (W790D8UD-1L1N2T/BCM only)
35	BMC SMBus Header (BMC_SMB1) (W790D8UD-1L1N2T/BCM only)
36	Intelligent Platform Management Bus Header (IPMB1) (W790D8UD-1L1N2T/BCM only)
37	Backplane PCI Express Hot-Plug Connector (CPU0_HSBP1)
38	Non Maskable Interrupt Button (NMI_BTN1)
39	PCI Express 5.0 x16 Slot (PCIE4)
40	PCI Express 5.0 x16 Slot (PCIE5)
41	PCI Express 5.0 x16 Slot (PCIE6)
42	PCI Express 5.0 x16 Slot (PCIE7)
43	2 x 288-pin DDR5 DIMM Slots (DDR5_E1, DDR5_F1)
44	2 x 288-pin DDR5 DIMM Slots (DDR5_E2, DDR5_F2)
45	LGA 4677 CPU Socket (CPU1)

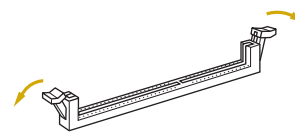
3 I/O Panel



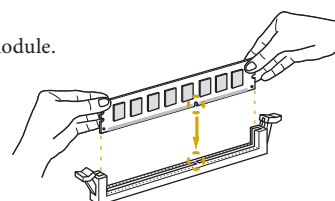
No.	Description	No.	Description
1	VGA Port (VGA1) (W790D8UD-1L1N2T/BCM only)	6	10G LAN RJ-45 Port (LAN2) (W790D8UD-1L1N2T/BCM only)
2	Serial Port (COM1)	7	1G LAN RJ-45 Port (LAN3)
3	USB 3.2 Gen1 Ports (USB3_1_2)	8	2.5G LAN RJ-45 Port (LAN4)
4	LAN RJ-45 Port (IPMI_LAN1) (W790D8UD-1L1N2T/BCM only)	9	UID Switch (UID1)
5	10G LAN RJ-45 Port (LAN1) (W790D8UD-1L1N2T/BCM only)		

4 Install the Memory

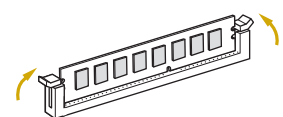
- 1 Unlock a DIMM slot by pressing the module clips outward.



- 2 Insert the memory module.

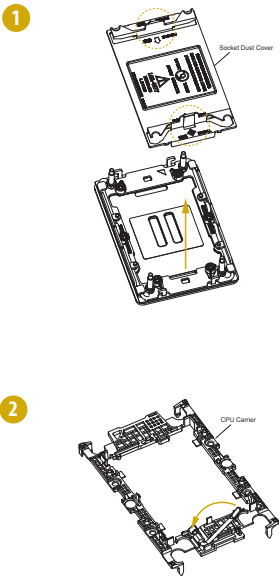


- 3 Lock the clips.

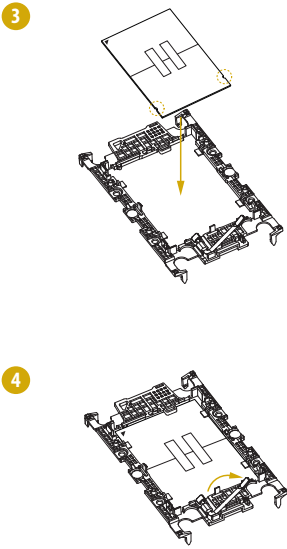


5 Install the Processor and Heatsink

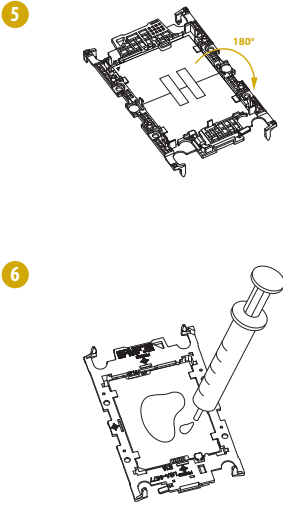
Remove the CPU socket cover and open the socket lever.



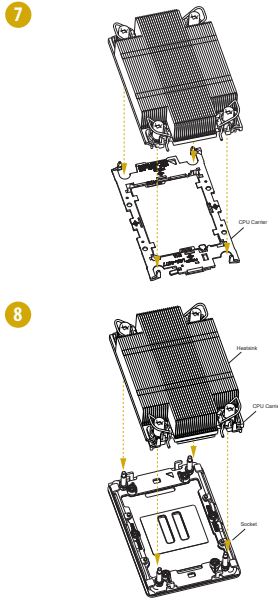
Align and install the processor on the carrier and make sure the arrow is located in the correct direction. Close the socket lever.



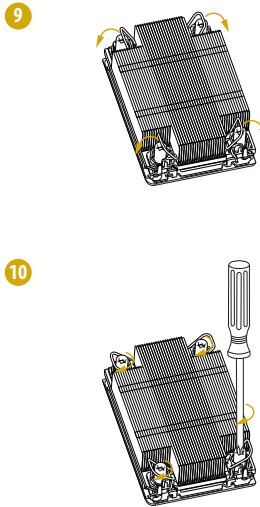
Carefully flip the carrier assembly. Apply a thermal paste.



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



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

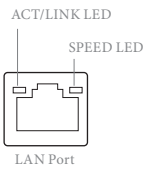


We recommend using the CPU Installation tool to avoid CPU pin-bent problem.

6 LAN Port LED Indications

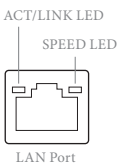
IPMI LAN Port

(W790D8UD-1L1N2T/BCM only)



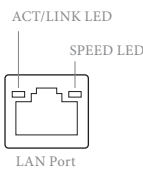
Activity / Link LED		Speed LED	
Status	Description	Status	Description
Off	No Link	Off	10Mbps connection or no link
Blinking Yellow	Data Activity	Orange	100Mbps connection
On	Link	Green	1Gbps connection

1G LAN Port



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

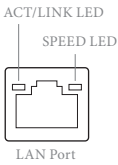
2.5G LAN Port



Activity / Link LED		Speed LED	
Status	Description	Status	Description
Off	No Link	Off	10Mbps connection or no link
Blinking Yellow	Data Activity	Orange	100Mbps connection
On	Link	Green	2.5Gbps connection

10G LAN Port

(W790D8UD-1L1N2T/BCM only)

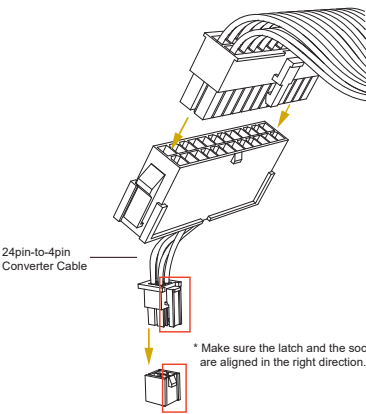
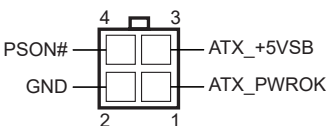


Activity / Link LED		Speed LED	
Status	Description	Status	Description
Off	No Link	Off	100Mbps connection or no connection
Blinking Green	Data Activity	Orange	1Gbps connection
On	Link	Green	10Gbps connection

9 Install the Power Cables

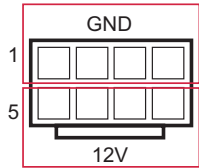
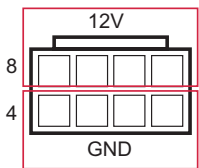
ATX4PIN1

Micro-Fit Power Connector



* Make sure the latch and the socket are aligned in the right direction.

ATX12V

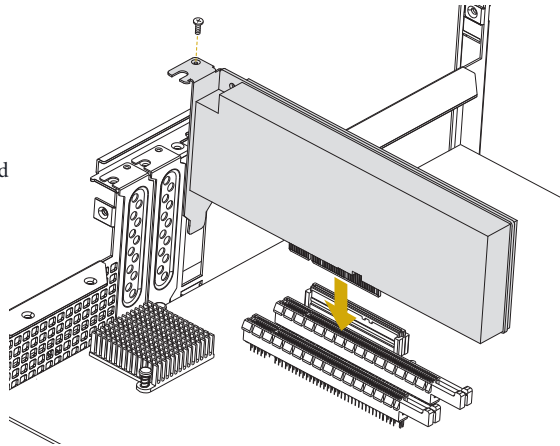


7 Install the PCIE Card

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

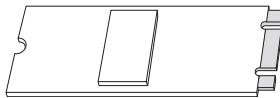
2 Align the card connector with the slot and press firmly until the card is completely seated on the slot.

3 Fasten the card to the chassis with the screw.

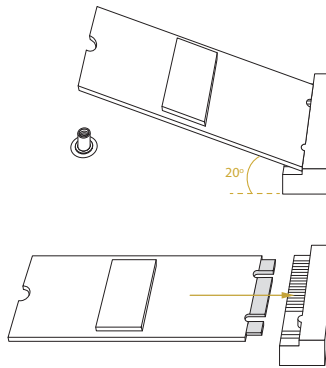


8 M.2 SSD Module Installation

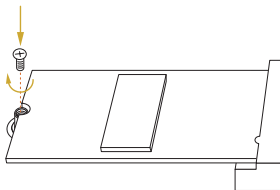
1 Prepare a M.2 SSD module and the screw.



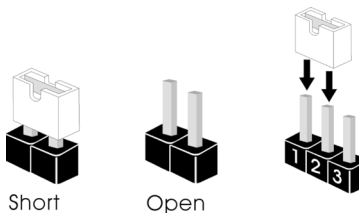
2 Gently insert the M.2 SSD module into the M.2 slot. Please be aware that the M.2 SSD module only fits in one orientation.



3 Tighten the screw with a screwdriver to secure the module into place. Please do not overtighten the screw as this might damage the module.



10 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.