P/N: 15G065107000AK V1.0

Quick Installation Guide

EP2C622D24LM / EP2C621D24LM-AB

www.asrockrack.com

EP2C622D24LM EP2C621D24LM-AB

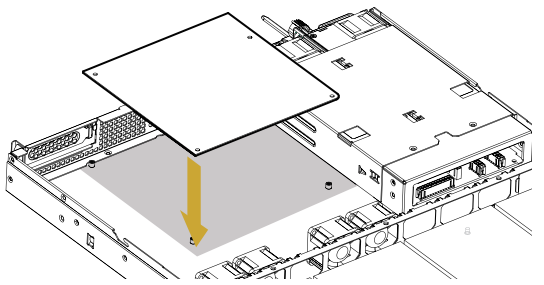
The server board User's Manual is available for download from the ASRock Rack's official website at http://www.asrockrack.com.

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

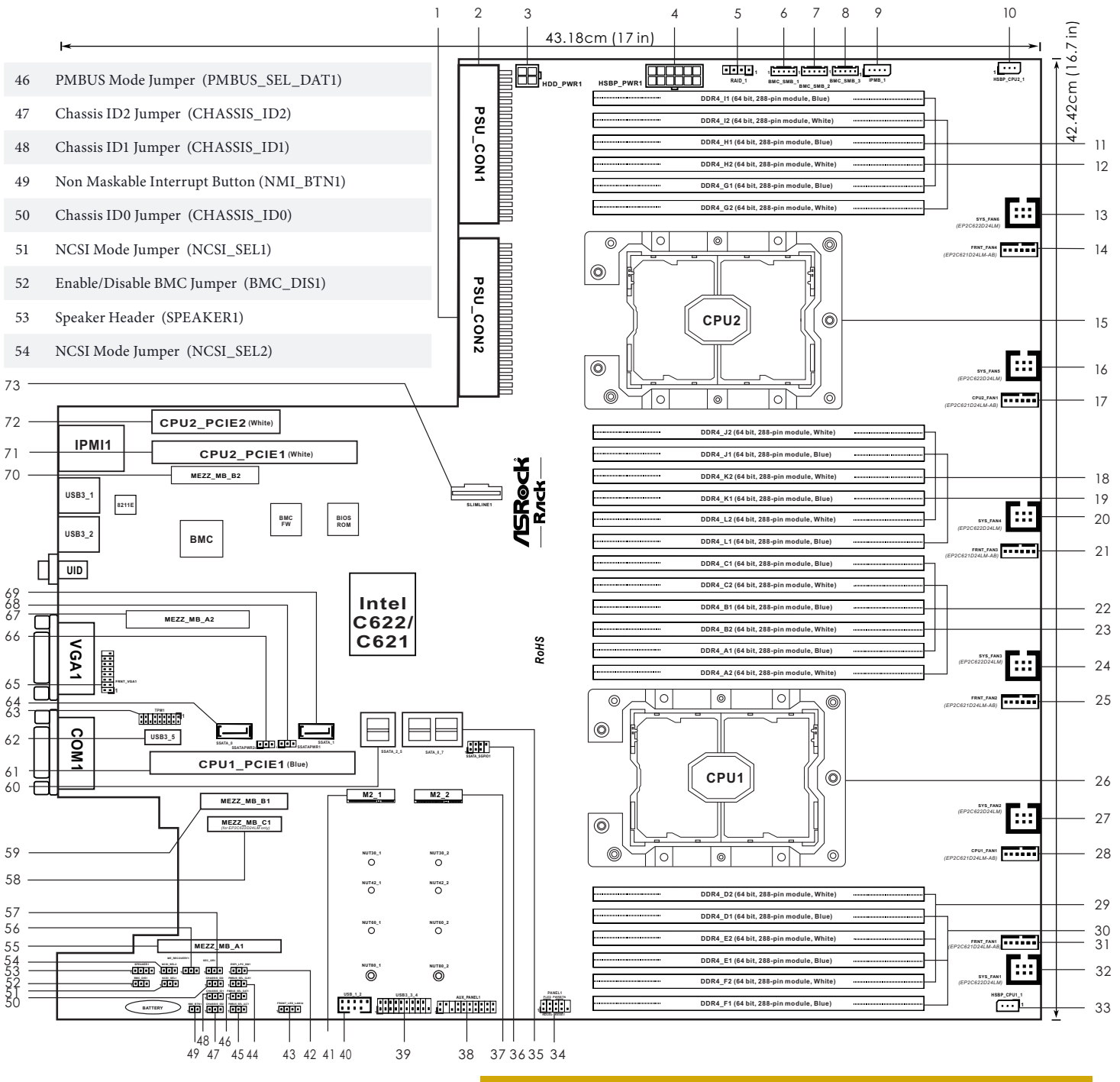
1. Unplug the power cord from the wall socket before touching any components.
2. To avoid damaging the server board's components due to static electricity, NEVER place your server board directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before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

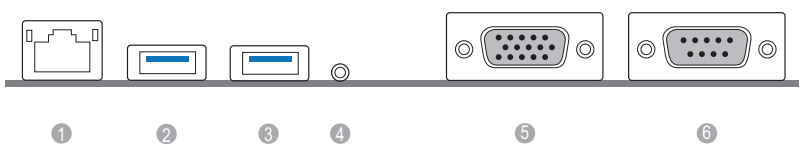


2 Motherboard Layout



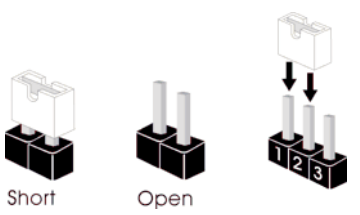
1	PSU Connector 2 (PSU_CON2)
2	PSU Connector 1 (PSU_CON1)
3	HDD Power Connetor (HDD_PWR1)
4	Backplane Power Connector (HSBP_PWR1)
5	Virtual RAID On CPU Header (RAID_1)
6	BMC SMBus Header 1 (BMC_SMB_1)
7	BMC SMBus Header 2 (BMC_SMB_2)
8	BMC SMBus Header 3 (BMC_SMB_3)
9	Intelligent Platform Management Bus header (IPMB_1)
10	Backplane PCI Express Hot-Plug Connector (HSBP_CPU2_1)
11	3 x 288-pin DDR4 DIMM Slots (DDR4_G1, DDR_H1, DDR4_I1, Blue)
12	3 x 288-pin DDR4 DIMM Slots (DDR4_G2, DDR_H2, DDR4_I2, White)
13	System Fan Connector (SYS_FAN6) *(EP2C622D24LM)*
14	Front Fan Connector (FRNT_FAN4) *(EP2C621D24LM-AB)*
15	CPU Socket 2 LGA-3647 (Socket P) (CPU2)
16	System Fan Connector (SYS_FAN5) *(EP2C622D24LM)*
17	CPU Fan Connector (CPU2_FAN1) *(EP2C621D24LM-AB)*
18	3 x 288-pin DDR4 DIMM Slots (DDR4_J2, DDR_K2, DDR4_L2, White)
19	3 x 288-pin DDR4 DIMM Slots (DDR4_J1, DDR_K1, DDR4_L1, Blue)
20	System Fan Connector (SYS_FAN4) *(EP2C622D24LM)*
21	Front Fan Connector (FRNT_FAN3) *(EP2C621D24LM-AB)*
22	3 x 288-pin DDR4 DIMM Slots (DDR4_A1, DDR_B1, DDR4_C1, Blue)
23	3 x 288-pin DDR4 DIMM Slots (DDR4_A2, DDR_B2, DDR4_C2, White)
24	System Fan Connector (SYS_FAN3) *(EP2C622D24LM)*
25	Front Fan Connector (FRNT_FAN2) *(EP2C621D24LM-AB)*
26	CPU Socket 1 LGA-3647 (Socket P) (CPU1)
27	System Fan Connector (SYS_FAN2) *(EP2C622D24LM)*
28	CPU Fan Connector (CPU1_FAN1) *(EP2C621D24LM-AB)*
29	3 x 288-pin DDR4 DIMM Slots (DDR4_D2, DDR_E2, DDR4_F2, White)
30	3 x 288-pin DDR4 DIMM Slots (DDR4_D1, DDR_E1, DDR4_F1, Blue)
31	Front Fan Connector (FRNT_FAN1) *(EP2C622D24LM-AB)*
32	System Fan Connector (SYS_FAN1) *(EP2C621D24LM)*
33	Backplane PCI Express Hot-Plug Connector (HSBP_CPU1_1)
34	System Panel Header (PANEL1)
35	Mini SAS HD Connector (SATA_0_7)
36	SSATA SGPIO Connector (SSATA_SGPIO1)
37	M.2 Socket (M2_2) (Type 2230/2242/2260/2280)
38	Auxiliary Panel Header (AUX_PANEL1)
39	USB 3.0 Header (USB3_3_4)
40	USB 2.0 Header (USB_1_2)
41	M.2 Socket (M2_1) (Type 2230/2242/2260/2280)
42	ESPI / LPC Switch Jumper (ESPI_LPC_SW1)
43	Front LAN LED Header (FRONT_LED_LAN34)
44	PMBUS Mode Jumper (PMBUS_SEL_CLK1)
45	PMBUS Mode Jumper (PMBUS_SEL_ALT1)
46	PMBUS Mode Jumper (PMBUS_SEL_DAT1)
47	Chassis ID2 Jumper (CHASSIS_ID2)
48	Chassis ID1 Jumper (CHASSIS_ID1)
49	Non Maskable Interrupt Button (NMI_BTN1)
50	Chassis ID0 Jumper (CHASSIS_ID0)
51	NCSI Mode Jumper (NCSI_SEL1)
52	Enable/Disable BMC Jumper (BMC_DIS1)
53	Speaker Header (SPEAKER1)
54	NCSI Mode Jumper (NCSI_SEL2)
55	Mezzanine Card Slot (MEZZ_MB_A1)
56	ME Recovery Jumper (ME_RECOVERY1)
57	Security Override Jumper (SEC_OR1)
58	Mezzanine Card Slot (MEZZ_MB_C1) *(EP2C622D24LM)*
59	Mezzanine Card Slot (MEZZ_MB_B1)
60	Mini SAS HD Connector (SSATA_2_5)
61	PCI Express 3.0 Slot (CPU1_PCIE1)
62	Vertical Type A USB 3.0 (USB3_5)
63	TPM Header (TPM1)
64	SATA DOM Connector (SSATA_0)
65	Front VGA Header (FRONT_VGA1)
66	SATA DOM Power Jumper (SSATAPWR2)
67	Mezzanine Card Slot (MEZZ_MB_A2)
68	SATA DOM Power Jumper (SSATAPWR1)
69	SATA DOM Connector (SSATA_1)
70	Mezzanine Card Slot (MEZZ_MB_B2)
71	PCI Express 3.0 Slot (CPU2_PCIE1)
72	PCI Express 3.0 Slot (CPU2_PCIE2)
73	Slimline NVMe Connector (SLIMLINE1)

3 I/O Panel



No.	Description	No.	Description
1	IPMI LAN Header (IPMI1)	4	UID Switch (UID)
2	USB 3.0 Port (USB3_1)	5	VGA Header (VGA1)
3	USB 3.0 Port (USB3_2)	6	Serial Port (COM1)

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.

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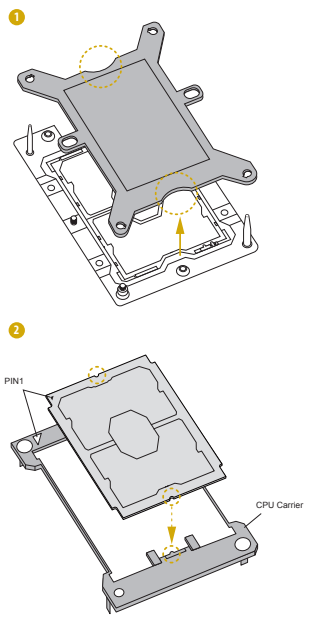
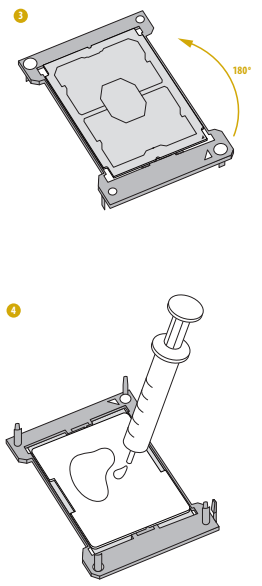
5 Install the Processor and Heatsink

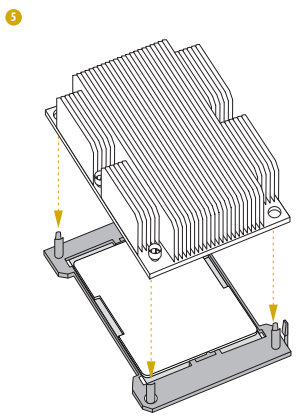
Remove the CPU socket cover. Align and install the processor on the carrier.



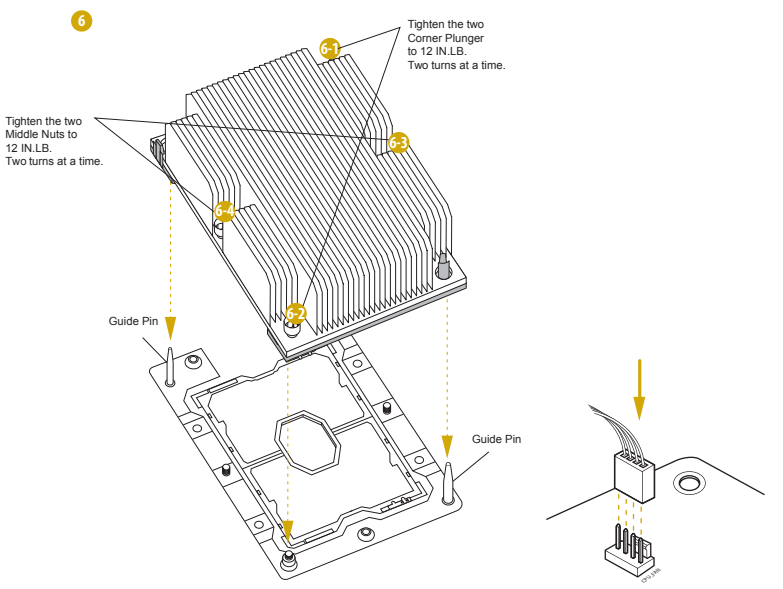
Carefully flip the carrier assembly. Apply a thermal paste .



Then install the heatsink to the carrier assembly and make sure the arrow is located in the correct direction.



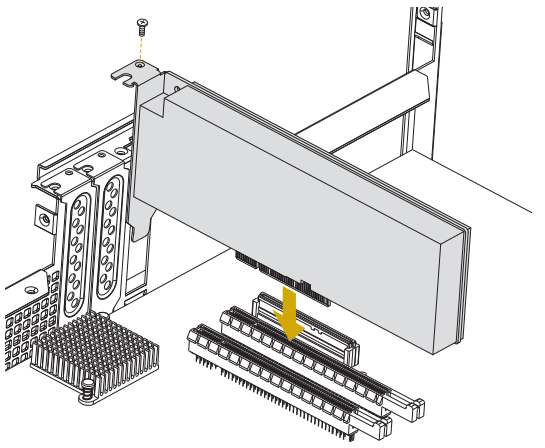
Install the heatsink. Tighten the screws in a sequential order (6-1>6-2>6-3>6-4). When dissembling the heatsink, loosen the screws in reverse order (6-4>6-3>6-2>6-1). Connect the CPU fan to the CPU FAN connector.



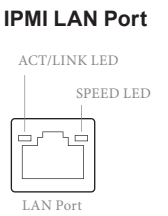
We recommend using the CPU Installation tool to avoid CPU pin-bent problem.

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.



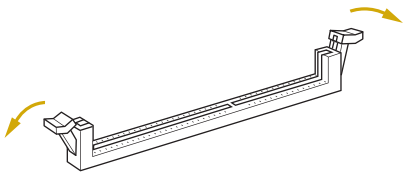
7 LAN Port LED Indications



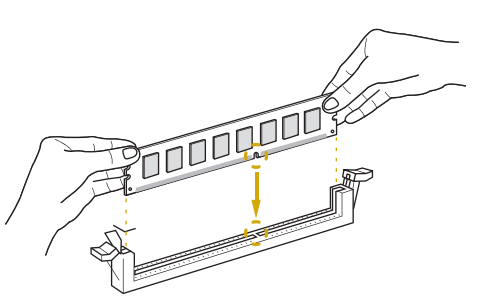
Activity / Link LED		Speed LED	
Status	Description	Status	Description
Off	No Link	Off	10M bps connection or no link
Blinking Yellow	Data Activity	Yellow	100M bps connection
On	Link	Green	1Gbps connection

8 Install the Memory

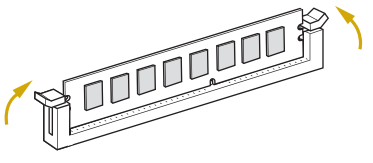
1. Unlock a DIMM slot by pressing the module clips outward.



2. Insert the memory module.



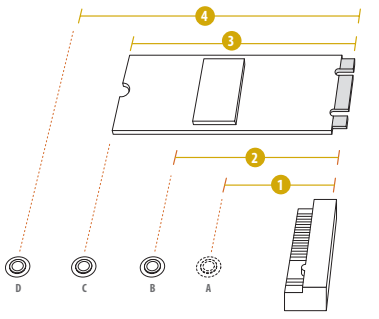
3. Lock the clips.



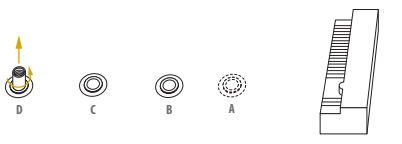
9 M.2_SSD (NGFF) Module Installation

1. Find the corresponding nut location to be used.

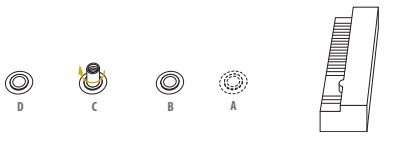
No.	1	2	3	4
Nut Location	A	B	C	D
PCB Length	3cm	4.2cm	6cm	8cm
Module Type	Type2230	Type 2242	Type2260	Type 2280



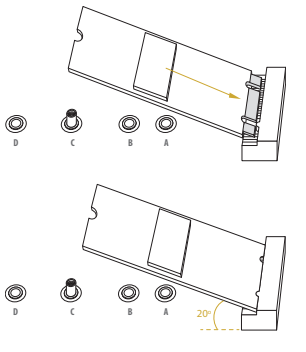
2. Move the standoff based on the module type and length.



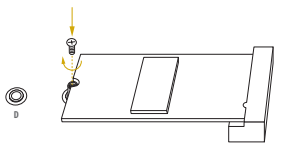
3. Peel off the yellow protective film on the nut. Hand tighten the standoff into the desired location.



4. Align and gently insert the M.2 module into the slot.

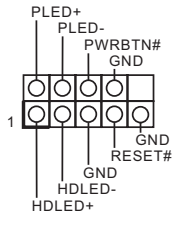
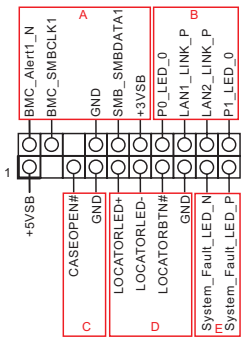


5. Tighten the screw with a screwdriver to secure the module into place. Please do not overtighten the screw.



10 Headers

System Panel



Auxiliary Panel