



P/N: 15G06512000AK V1.0

# Quick Installation Guide EP2C621D12 WS



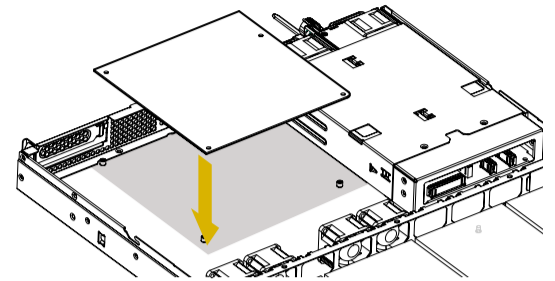
The server board User's Manual is available for download from the ASRock Rack's official website at <http://www.asrockrack.com>.

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

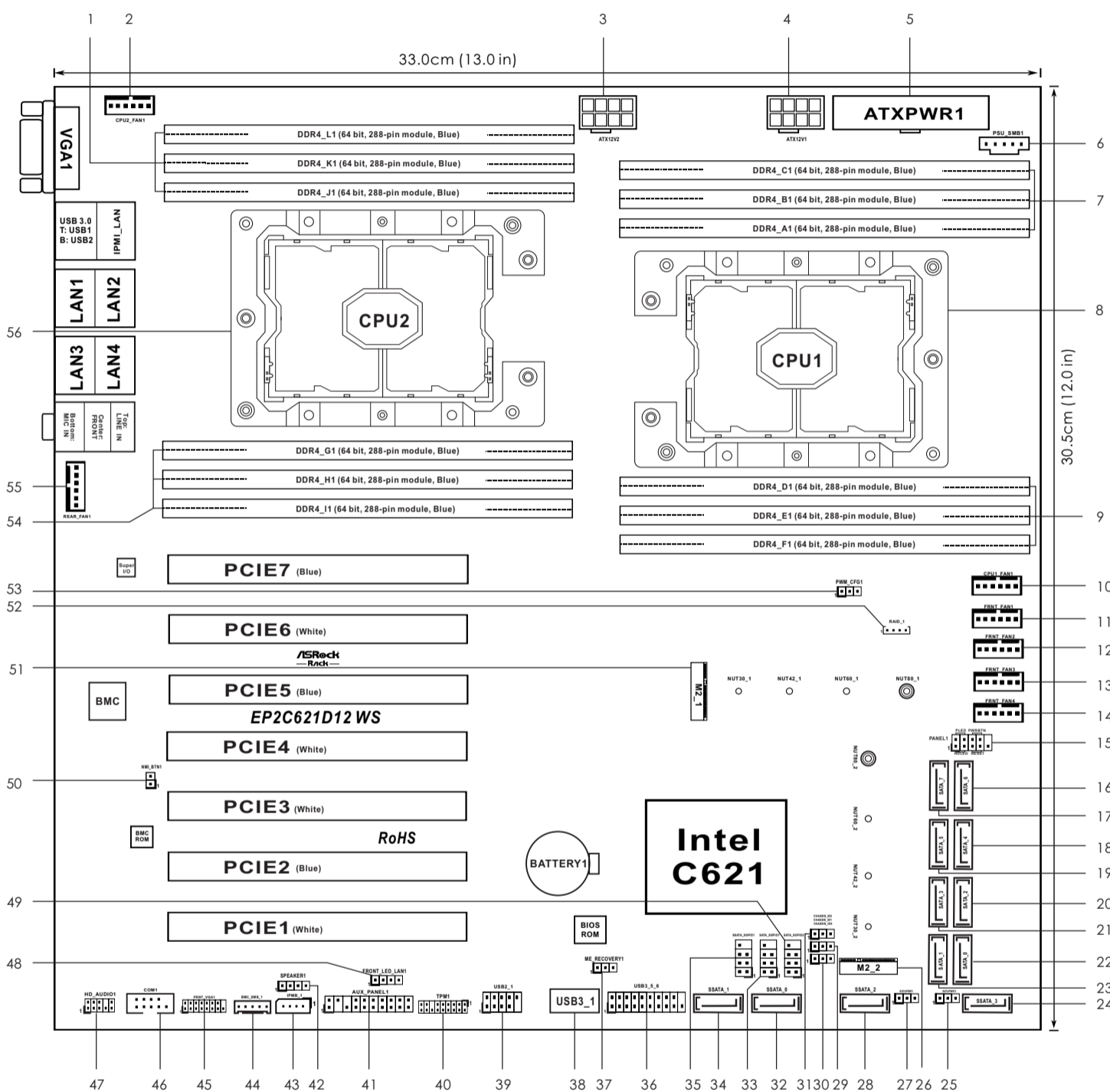
1. Unplug the power cord from the wall socket before touching any components.
2. To avoid damaging the server board's components due to static electricity, NEVER place your server board directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before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

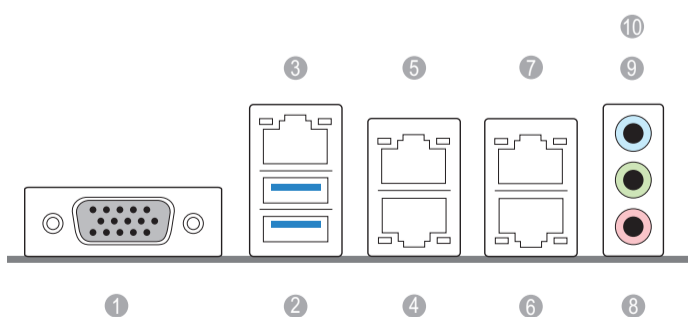


## 2 Motherboard Layout



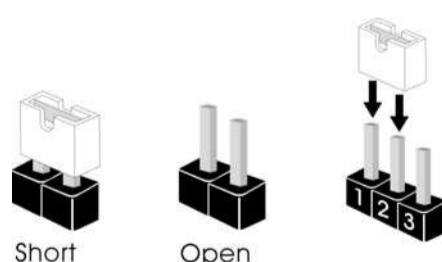
- 1 3 x 288-pin DDR4 DIMM Slots (DDR4\_J1, DDR4\_K1, DDR4\_L1)
- 2 CPU2 Fan Connector (CPU2\_FAN1)
- 3 ATX 12V Power Connector (ATX12V2)
- 4 ATX 12V Power Connector (ATX12V1)
- 5 ATX Power Connector (ATXPWR1)
- 6 PSU SMBus Header (PSU\_SMB1)
- 7 3 x 288-pin DDR4 DIMM Slots (DDR4\_A1, DDR4\_B1, DDR4\_C1)
- 8 LGA 3647 CPU Socket (CPU1)
- 9 3 x 288-pin DDR4 DIMM Slots (DDR4\_D1, DDR4\_E1, DDR4\_F1)
- 10 CPU1 Fan Connector (CPU1\_FAN1)
- 11 Front Fan Connector (FRNT\_FAN1)
- 12 Front Fan Connector (FRNT\_FAN2)
- 13 Front Fan Connector (FRNT\_FAN3)
- 14 Front Fan Connector (FRNT\_FAN4)
- 15 System Panel Header (PANEL1)
- 16 SATA3 Connector (SATA\_6), White
- 17 SATA3 Connector (SATA\_7), White
- 18 SATA3 Connector (SATA\_4), White
- 19 SATA3 Connector (SATA\_5), White
- 20 SATA3 Connector (SATA\_2), White
- 21 SATA3 Connector (SATA\_3), White
- 22 SATA3 Connector (SATA\_0), White
- 23 SATA3 Connector (SATA\_1), White
- 24 SATA3 DOM Connector (SSATA\_3), Red
- 25 SATA DOM Power Jumper (SATAPWR2)
- 26 M.2 Socket (M2\_2) (Type 2230 / 2242 / 2260 / 2280)
- 27 SATA DOM Power Jumper (SATAPWR1)
- 28 SATA3 DOM Connector (SSATA\_2), Red
- 29 Chassis ID1 Jumper (CHASSIS\_ID1)
- 30 Chassis ID0 Jumper (CHASSIS\_ID0)
- 31 Chassis ID2 Jumper (CHASSIS\_ID2)
- 32 SATA3 Connector (SSATA\_0), White
- 33 SATA SGPIO Connector (SATA\_SGPIO1)
- 34 SATA3 Connector (SSATA\_1), White
- 35 SATA SGPIO Connector (SSATA\_SGPIO1)
- 36 USB 3.0 Header (USB3\_5\_6)
- 37 ME Recovery Jumper (ME\_RECOVERY1)
- 38 Vertical Type A USB 3.0 (USB3\_1)
- 39 USB 2.0 Header (USB2\_1)
- 40 TPM Header (TPM1)
- 41 Auxiliary Panel Header (AUX\_PANEL1)
- 42 Speaker Header (SPEAKER1)
- 43 Intelligent Platform Management Bus header (IPMB\_1)
- 44 BMC SMBus Header (BMC\_SMB\_1)
- 45 Front VGA Header (FRNT\_VGA1)
- 46 Serial Port Header (COM1)
- 47 Front Panel Audio Header (HD\_AUDIO1)
- 48 Front LAN LED Connector (FRONT\_LED\_LAN1)
- 49 SATA SGPIO Connector (SATA\_SGPIO2)
- 50 Non Maskable Interrupt Button (NMI\_BTN1)
- 51 M.2 Socket (M2\_1) (Type 2230 / 2242 / 2260 / 2280)
- 52 Virtual RAID On CPU Header (RAID\_1)
- 53 PWM Configuration Header (PWM\_CFG1)
- 54 3 x 288-pin DDR4 DIMM Slots (DDR4\_G1, DDR4\_H1, DDR4\_I1)
- 55 Rear Fan Connector (REAR\_FAN1)
- 56 LGA 3647 CPU Socket (CPU2)

## 3 I/O Panel



No.	Description	No.	Description
1	VGA Port (VGA1)	6	GLAN RJ-45 Port (LAN3)
2	USB 3.0 Ports (USB3_1_2)	7	GLAN RJ-45 Port (LAN4)
3	LAN RJ-45 Port (IPMI_LAN)	8	Microphone (Pink)
4	GLAN RJ-45 Port (LAN1)	9	Front Speaker (Lime)
5	GLAN RJ-45 Port (LAN2)	10	Line In (Light Blue)

## 4 Jumper Cap On/Off



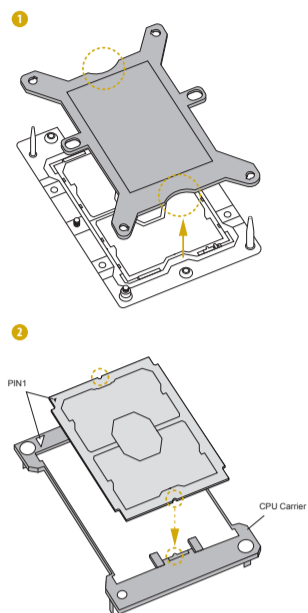
When the jumper cap is placed on the pins, the jumper is "Short". If no jumper cap is placed on the pins, the jumper is "Open".

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

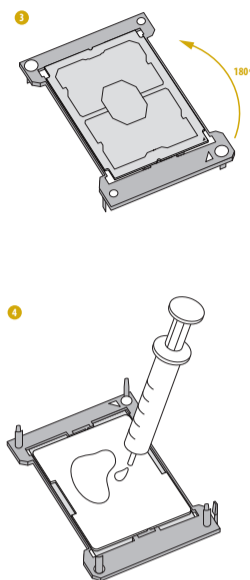


## 5 Install the Processor and Heatsink

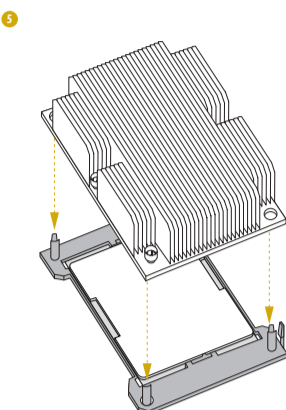
Remove the CPU socket cover. Align and install the processor on the carrier.



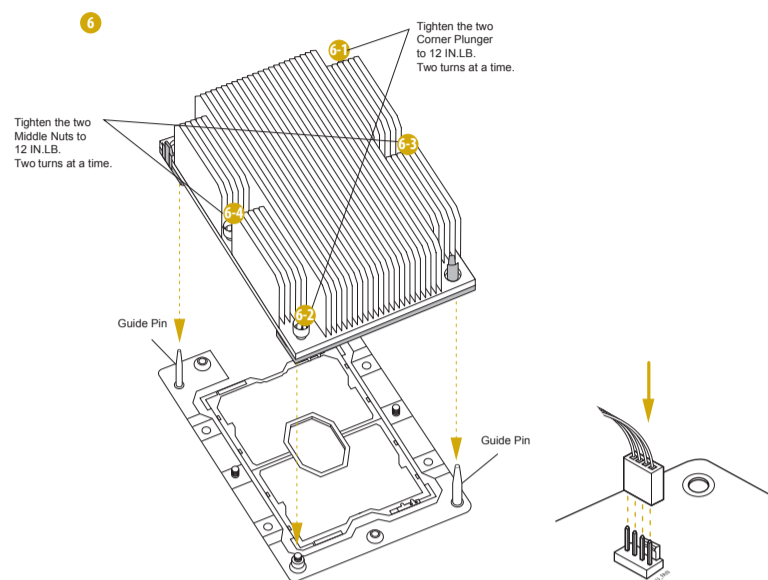
Carefully flip the carrier assembly. Apply a thermal paste.



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

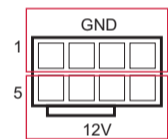
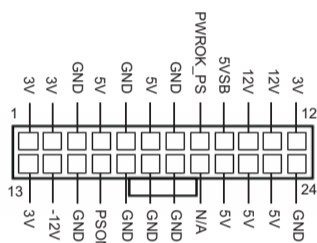
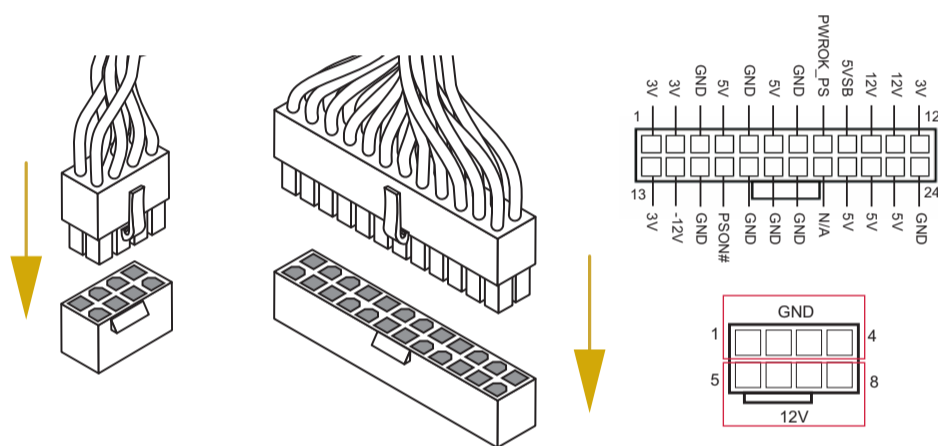


Install the heatsink. Tighten the screws in a sequential order (6-1>6-2>6-3>6-4). When disassembling the heatsink, loosen the screws in reverse order (6-4>6-3>6-2>6-1). Connect the CPU fan to the CPU FAN connector.



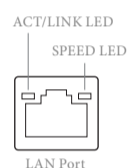
We recommend using the CPU Installation tool to avoid CPU pin-bent problem.

## 6 Install the Power Cables



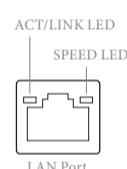
## 7 LAN Port LED Indications

### 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	1Gbps connection

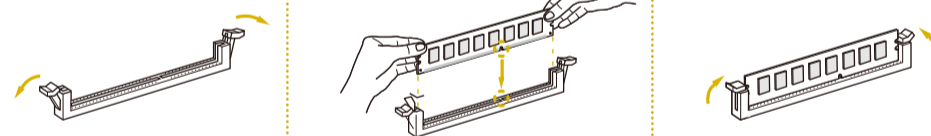
### IPMI LAN Port



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	1G bps connection

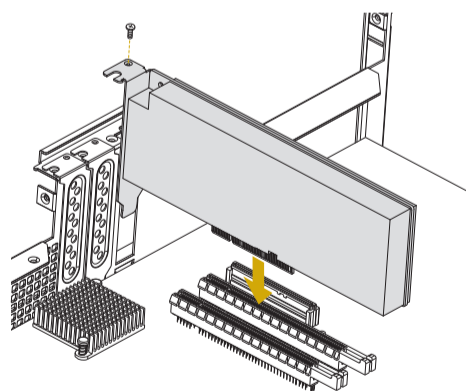
## 8 Install the Memory

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



## 9 Install the PCIe Card

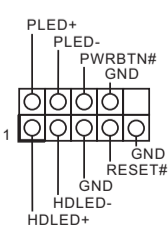
- 1 Remove the bracket facing the slot that you intend to use. Keep the screw for later use.
- 2 Align the card connector with the slot and press firmly until the card is completely seated on the slot.
- 3 Fasten the card to the chassis with the screw.



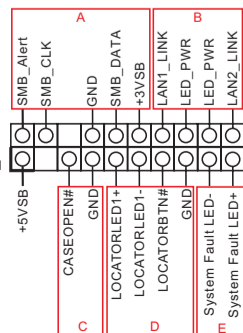
\*Images shown are for illustrative purposes only and may differ depending on model.

## 10 Headers

### System Panel

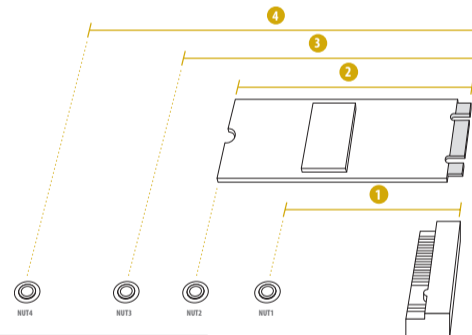


### Auxiliary Panel



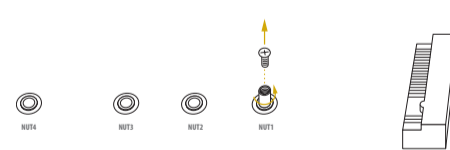
## 11 M.2\_SSD (NGFF) Module Installation

- 1 Find the corresponding nut location to be used.



No.	1	2	3	4
Nut Location	NUT30	NUT42	NUT60	NUT80
PCB Length	3cm	4.2cm	6cm	8cm
Module Type	Type 2230	Type 2242	Type2260	Type 2280

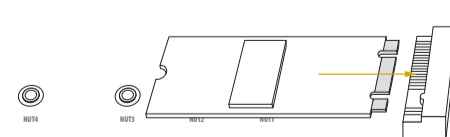
- 2 Move the standoff based on the module type and length.



- 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.

