



P/N: 15G065362010AK V1.1

## Quick Installation Guide

### GNRD8-2L2T

**ASRock**  
**Rack**  
www.asrockrack.com



GNRD8-2L2T

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

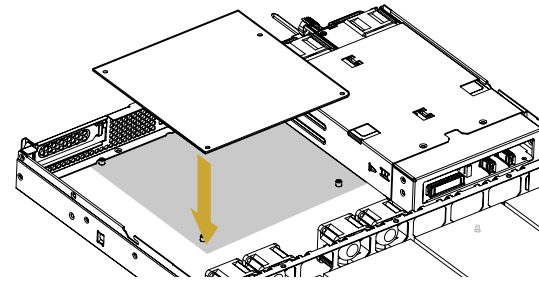
Take note of the following precautions before installing server board components or change any server board settings.

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.

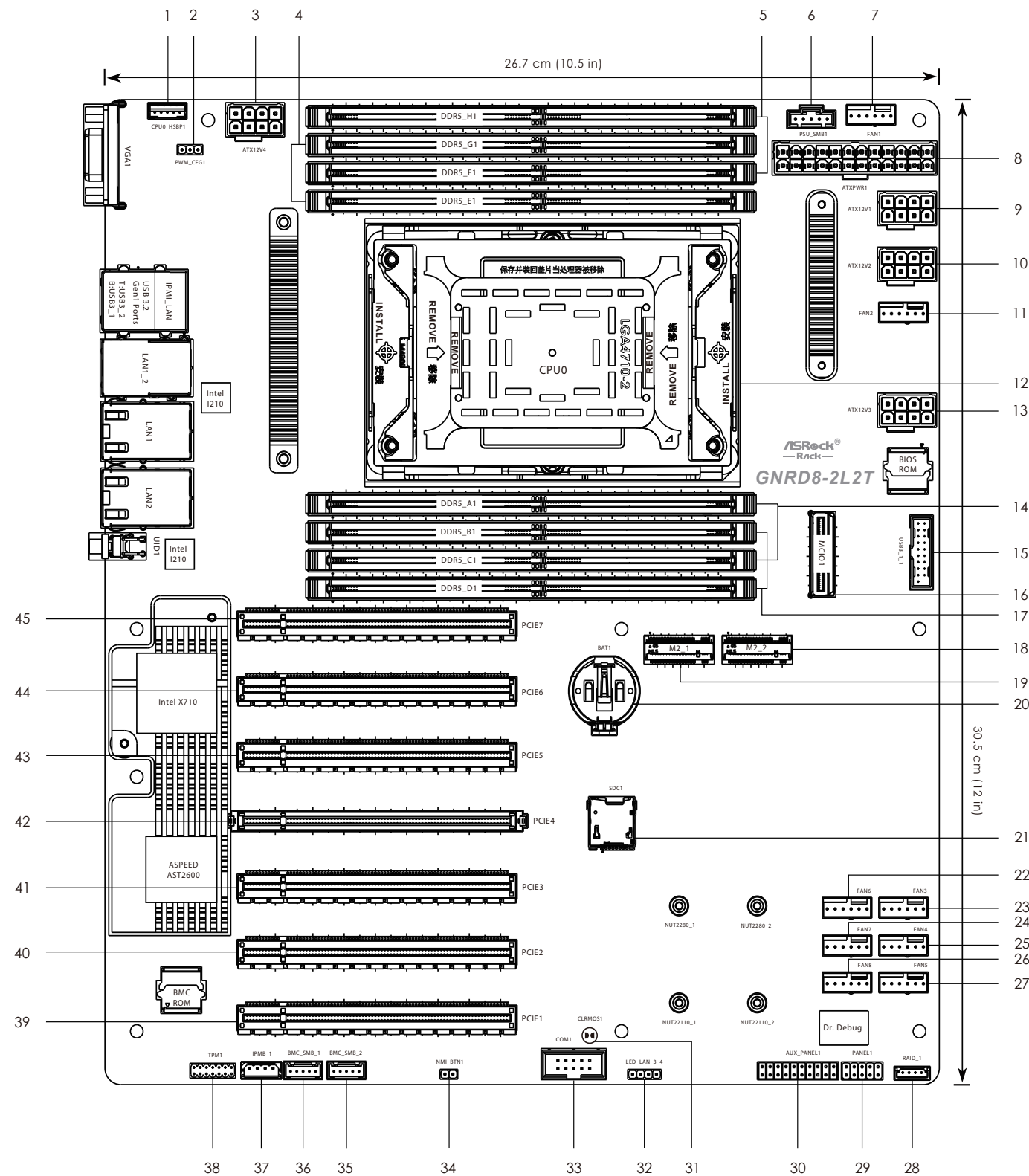
## 1 Install the Server Board

- 1 Insert the server board into the chassis.

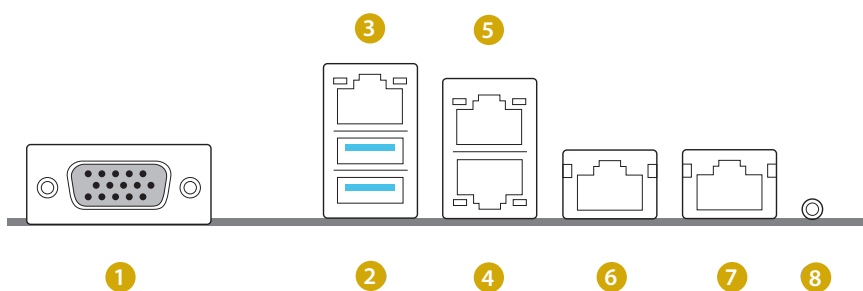
- 2 Affix the screws clockwise into the mounting holes in all of the corners of the server board.  
Do not over-tighten the screws



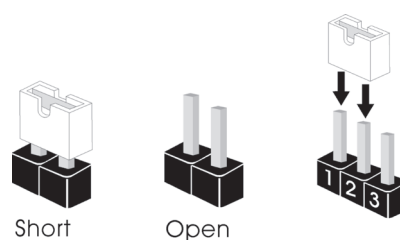
## 2 Motherboard Layout



## 3 I/O Panel



## 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".

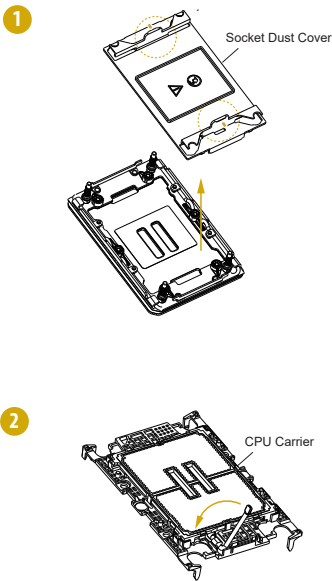
The illustration shows a 3-pin jumper whose pin1 and pin2 are "Short" when a jumper cap is placed on these 2 pins.

| No. | Description                                           |
|-----|-------------------------------------------------------|
| 1   | Backplane PCI Express Hot-Plug Connector (CPU0_HSBP1) |
| 2   | PWM Configuration Header (PWM_CFG1)                   |
| 3   | ATX 12V Power Connector (ATX12V4)                     |
| 4   | 2 DDR5 DIMM Slots (DDR5_E1, DDR5_G1)                  |
| 5   | 2 DDR5 DIMM Slots (DDR5_F1, DDR5_H1)                  |
| 6   | PSU SMBus (PSU_SMB1)                                  |
| 7   | System Fan Header (FAN1)                              |
| 8   | ATX Power Connector (ATXPWR1)                         |
| 9   | ATX 12V Power Connector (ATX12V1)                     |
| 10  | ATX 12V Power Connector (ATX12V2)                     |
| 11  | System Fan Header (FAN2)                              |
| 12  | Socket E2 (LGA4710) (CPU0)                            |
| 13  | ATX 12V Power Connector (ATX12V3)                     |
| 14  | 2 DDR5 DIMM Slots (DDR5_A1, DDR5_C1)                  |
| 15  | USB 3.2 Gen1 Header (USB3_1_1)                        |
| 16  | Mini Cool Edge IO Connector (MCIO1)                   |
| 17  | 2 DDR5 DIMM Slots (DDR5_B1, DDR5_D1)                  |
| 18  | M.2 Socket (M2_2) (Type 2280 / 22110)                 |
| 19  | M.2 Socket (M2_1) (Type 2280 / 22110)                 |
| 20  | Battery                                               |
| 21  | MicroSD Card Slot (SDC1)                              |
| 22  | System Fan Header (FAN6)                              |
| 23  | System Fan Header (FAN3)                              |
| 24  | System Fan Header (FAN7)                              |
| 25  | System Fan Header (FAN4)                              |
| 26  | System Fan Header (FAN8)                              |
| 27  | System Fan Header (FAN5)                              |
| 28  | Virtual RAID On CPU Header (RAID_1)                   |
| 29  | System Panel Header (PANEL1)                          |
| 30  | Auxiliary Panel Header (AUX_PANEL1)                   |
| 31  | Clear CMOS Pad (CLRMOS1)                              |
| 32  | Front LAN LED Connector (LED_LAN_3_4)                 |
| 33  | COM Port Header (COM1)                                |
| 34  | Non Maskable Interrupt Button (NMI_BTN1)              |
| 35  | BMC SMBus Header (BMC_SMB_2)                          |
| 36  | BMC SMBus Header (BMC_SMB_1)                          |
| 37  | Intelligent Platform Management Bus Header (IPMB_1)   |
| 38  | SPI TPM Header (TPM1)                                 |
| 39  | PCI Express 5.0 / CXL2.0 x16 Slot (PCIE1)             |
| 40  | PCI Express 5.0 / CXL2.0 x16 Slot (PCIE2)*            |
| 41  | PCI Express 5.0 / CXL2.0 x16 Slot (PCIE3)             |
| 42  | PCI Express 5.0 / CXL2.0 x16 Slot (PCIE4)*            |
| 43  | PCI Express 5.0 / CXL2.0 x16 Slot (PCIE5)             |
| 44  | PCI Express 5.0 / CXL2.0 x16 Slot (PCIE6)             |
| 45  | PCI Express 5.0 / CXL2.0 x16 Slot (PCIE7)*            |

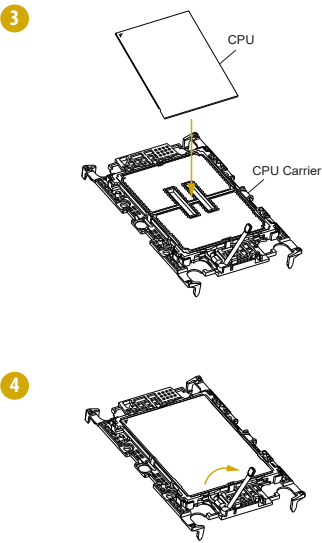
\* PCIE7, 4, 2 only function with selected processors.

5 Install the Processor and Heatsink

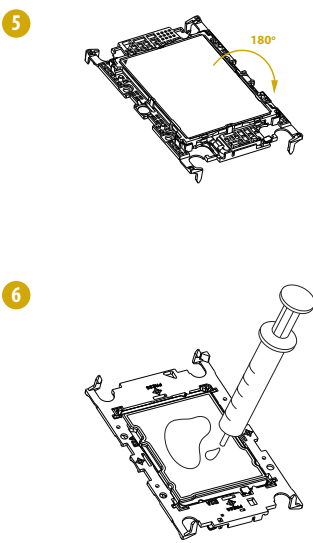
Remove the CPU socket cover and open the socket lever.



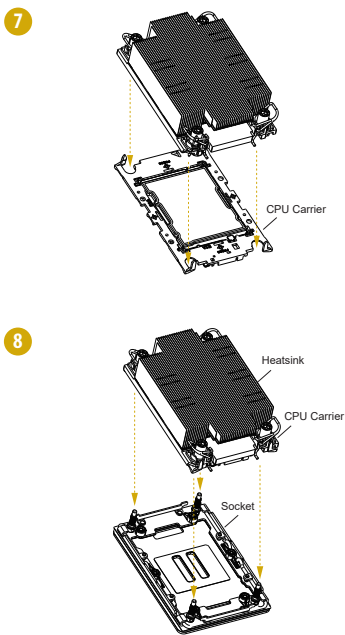
Align and install the processor on the carrier and make sure the arrow is located in the correct direction. Close the socket lever.



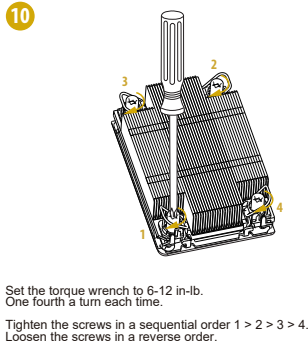
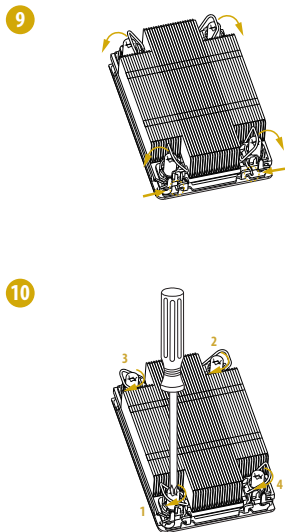
Carefully flip the carrier assembly. Apply a thermal paste.



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



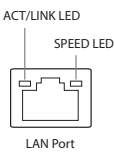
Tighten the corner fasteners. Secure the heatsink to the motherboard with a screwdriver.



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

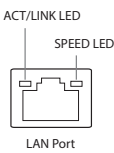
6 LAN Port LED Indications

IPMI LAN Port



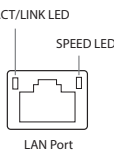
| Activity / Link LED |               | Speed LED |                               |
|---------------------|---------------|-----------|-------------------------------|
| Status              | Description   | Status    | Description                   |
| Off                 | No link       | Off     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

1G LAN Port



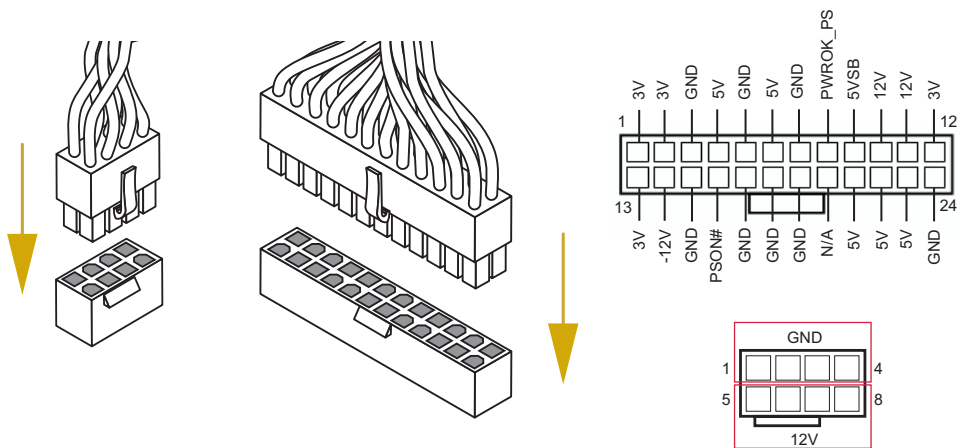
| Activity / Link LED |               | Speed LED |                               |
|---------------------|---------------|-----------|-------------------------------|
| Status              | Description   | Status    | Description                   |
| Off                 | No link       | Off     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

10G LAN Port



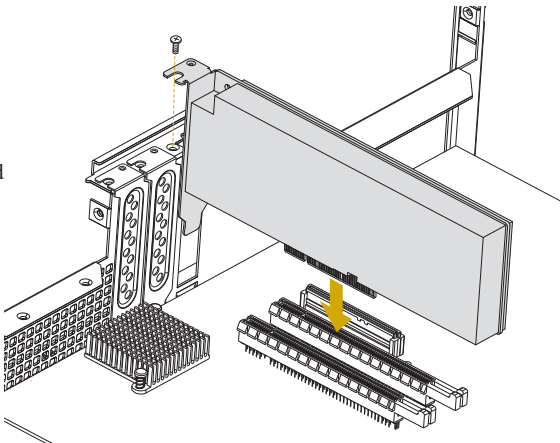
| Activity / Link LED |               | Speed LED |                                |
|---------------------|---------------|-----------|--------------------------------|
| Status              | Description   | Status    | Description                    |
| Off                 | No link       | Off  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

8 Install the Power Cables



9 Install the PCIE Card

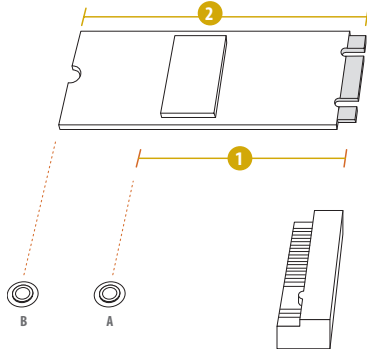
- 1 Remove the bracket facing the slot that intending to use. Keep the screw for later use.
- 2 Align the card connector with the slot and press firmly until the card is completely seated on the slot.
- 3 Fasten the card to the chassis with the screw.



7 Install M.2 SSD Module

- 1 Find the corresponding nut location to be used.

| No.          | 1               | 2                |
|--------------|-----------------|------------------|
| Nut Location | A (NUT2280_1/2) | B (NUT22110_1/2) |
| PCB Length   | 8cm             | 11cm             |
| Module Type  | Type 2280       | Type 22110       |



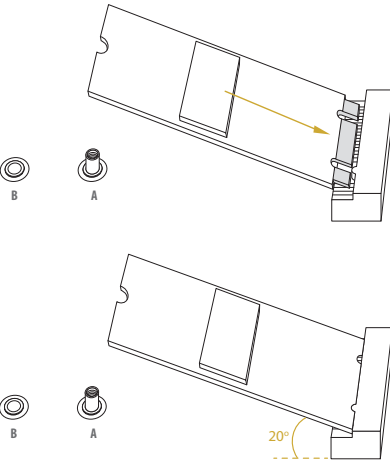
- 2 Move the standoff based on the module type and length.



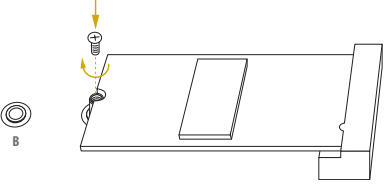
- 3 Peel off the yellow protective film on the nut. Hand tighten the standoff into the desired location.



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

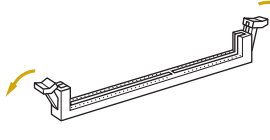


- 5 Tighten the screw with a screwdriver to secure the module into place. Please do not overtighten the screw.

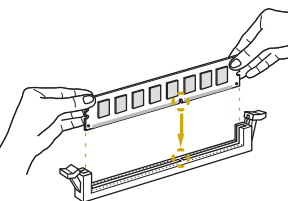


10 Install the Memory

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



- 2 Insert the memory module.



- 3 Lock the clips.

