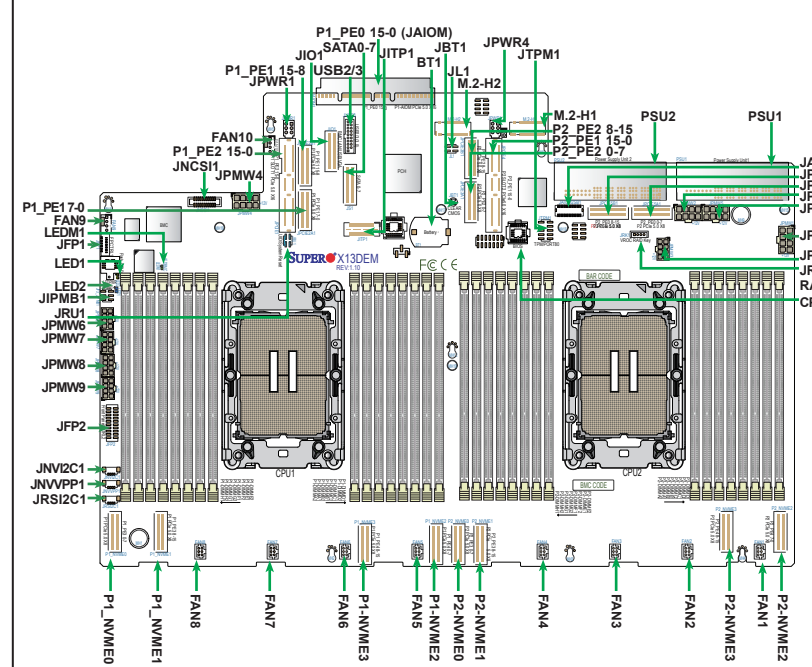


# SUPERMICRO® SuperServer 621H-TN12R Quick Reference Guide

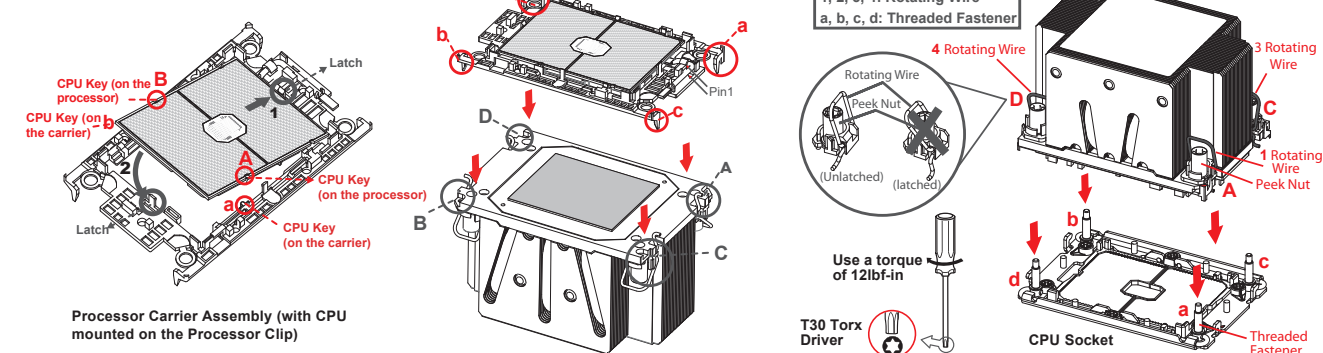
## Board Layout



Jumper	Description	Default Setting
JBT1	CMOS Clear	Open (Normal)
<b>Connector</b>		
Battery (BT1)	Onboard battery	
BMC LAN/USB/VGA (J101)	Low-profile (LP) Slim SAS I/O connector used for dedicated BMC LAN/USB/VGA connections	
FAN1-FAN8, FAN9, FAN10	Eight 5-pin cooling fan headers (FAN1-FAN 8) and two 4-pin cooling fan headers (FAN9-FAN10)	
JAIOM1 (P1_PE0 15-0)	Supermicro Advanced Input/Output Module (AIOM) PCIe 5.0 x16 connector for near I/O support	
JAIOM2SB1	Supermicro Advanced Input/Output Module (AIOM2) sideband connector	
JFP1	Front Control Panel header	
JFP2	Front Control Panel header with USB and VGA support	
JPMW1-JPMW9	+12V power connectors 1-9	
JPMW1 and JPMW4	6-pin power connectors	
JPS1PS2	Power Supply Unit (PSU) Power Supply Unit2 for system power use (See Note 1 below)	
JL1	Chassis Intrusion header	
JNV3C1	NVMe SMBus I2C header used for PCIe SMBus clock and data connections with hot-plug support	
JNV3P1	NVMe VPP SMBus (System Management Bus) with hot-plug support	
JTPM1	Trusted Platform Module/Port 80 connector	
M.2-H1/M.2-H2	PCIe 3.0 x2/SATA3 Hybrid M.2 slots (with support of M-Key 2280, and 22110)	
P1_NVME-0-3	(P1) PCIe 5.0 x8 M.2 connectors supported by CPU1 with four NVMe connections (0/1/2/3)	
P2_NVME-0-3	(P2) PCIe 5.0 x8 M.2 connectors supported by CPU2 with four NVMe connections (0/1/2/3)	
P1_PE0 15-0 (AIOM1)	PCIe 5.0 x16 AIOM (OCP3.0-compliant) slot supported by CPU1	
P1_PE1 7-0 (JPCIEA1)	(P1) PCIe 5.0 x8 M.2 connector supported by CPU1	
P1_PE1 15-8 (JPCIEB1)	(P1) PCIe 5.0 x8 M.2 connector supported by CPU1	
P1_PE2 15-0 (JPCIE1)	(P1-SLOT1) PCIe 5.0 x16 slot supported by CPU1	
P2_PE0 8-15 (JPCIEA1)	(P2) PCIe 5.0 x8 M.2 connector supported by CPU2	
P2_PE0 15-8 (JPCIEB1)	(P2) PCIe 5.0 x8 M.2 connector supported by CPU2	
P2_PE1 15-0 (JPCIEA1)	(P2-SLOT2) PCIe 5.0 x16 slot supported by CPU2	
P2_PE2 8-15 (JPCIEA1)	(P2) PCIe 5.0 x8 M.2 connector supported by CPU2	
P2_PE2 15-8 (JPCIEB1)	(P2) PCIe 5.0 x8 M.2 connector supported by CPU2	
JNV3C1	SlimSAS LP (M.2) connector with support of eight Intel® PCH SATA 3.0 connectors (RAID 0, RAID 1, RAID 5, and RAID 10 supported)	
JRS2C1 (J2)	Rear USB header with support for two USB 3.2 Gen1 ports	
VR0C RAID Key (JKR1)	Intel VR0C RAID key header for NVMe RAID support (See the note below.)	

## CPU Installation

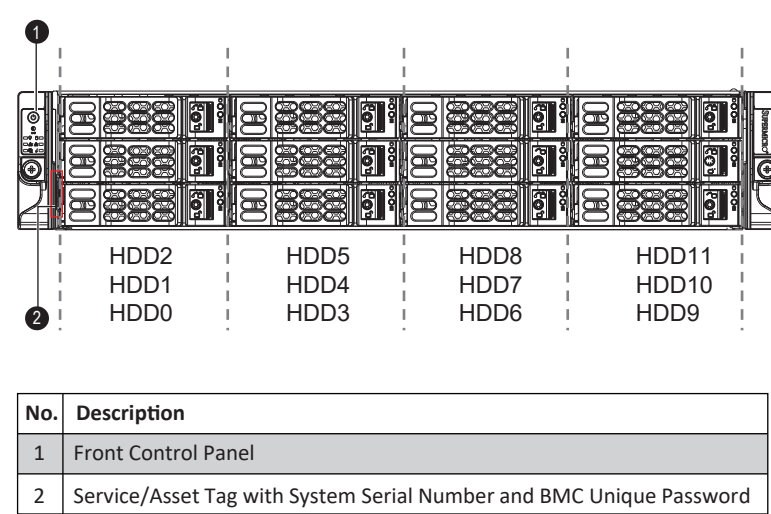
- Put processor into bracket – attention to the lineup Pin and key on both processor and carrier.
- Put processor carrier module into HS.
- Put processor heatsink module into MB.



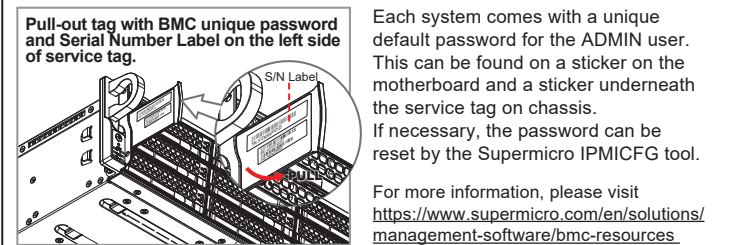
## Memory Support

DDR5 Memory Population Table for X13DP Motherboards (with 32 DIMMs installed)	
2 CPUs: (Recommended)	Memory Population Sequence
2 CPUs & 2 DIMMs	CPU1 and CPU2: A1, or B1 or E1 or F1
2 CPUs & 4 DIMMs	CPU1 and CPU2: A1, G1 or C1, E1
2 CPUs & 8 DIMMs	CPU1: A1, C1, E1, G1 CPU2: A1, C1, E1, G1
2 CPUs & 10 DIMMs	CPU1: A1, C1, D1, E1, F1, G1 CPU2: A1, C1, E1, G1
2 CPUs & 12 DIMMs	CPU1: A1, C1, D1, E1, F1, G1 and CPU2: A1, C1, D1, E1, F1, G1 or CPU1: A1, B1, C1, E1, G1, H1 and CPU2: A1, B1, C1, E1, G1, H1 or CPU1: B1, C1, D1, E1, F1, H1 and CPU2: B1, C1, D1, E1, F1, H1 or CPU1: A1, B1, D1, F1, G1, H1 and CPU2: A1, B1, D1, F1, G1, H1
2 CPUs & 16 DIMMs	CPU1: A1, B1, C1, D1, E1, F1, G1, H1 CPU2: A1, B1, C1, D1, E1, F1, G1, H1
2 CPUs & 22 DIMMs	CPU1: A1, A2, B1, B2, C1, C2, D1, D2, E1, E2, F1, F2, G1, G2, H1, H2 CPU2: A1, C1, D1, E1, F1, G1
2 CPUs & 24 DIMMs	CPU1: A1, A2, B1, B2, C1, C2, D1, D2, E1, E2, F1, F2, G1, G2, H1, H2 CPU2: A1, B1, C1, D1, E1, F1, G1, H1
2 CPUs & 32 DIMMs	CPU1: A1, A2, B1, B2, C1, C2, D1, D2, E1, E2, F1, F2, G1, G2, H1, H2 CPU2: A1, A2, B1, B2, C1, C2, D1, D2, E1, E2, F1, F2, G1, G2, H1, H2

## Front View



## System Information



## Caution and Product Resources

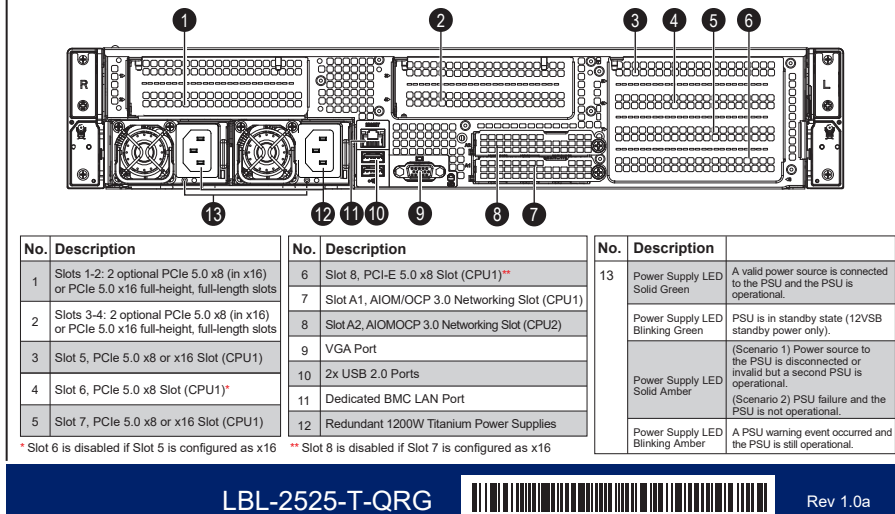
**SAFETY INFORMATION:**  
IMPORTANT: See installation instructions and safety warning before connecting system to power supply.  
[http://www.supermicro.com/about/policies/safety\\_information.cfm](http://www.supermicro.com/about/policies/safety_information.cfm)

**CAUTION:**  
Always be sure all power supplies for this system have the same power output. If mixed power supplies are installed, the system will not operate.

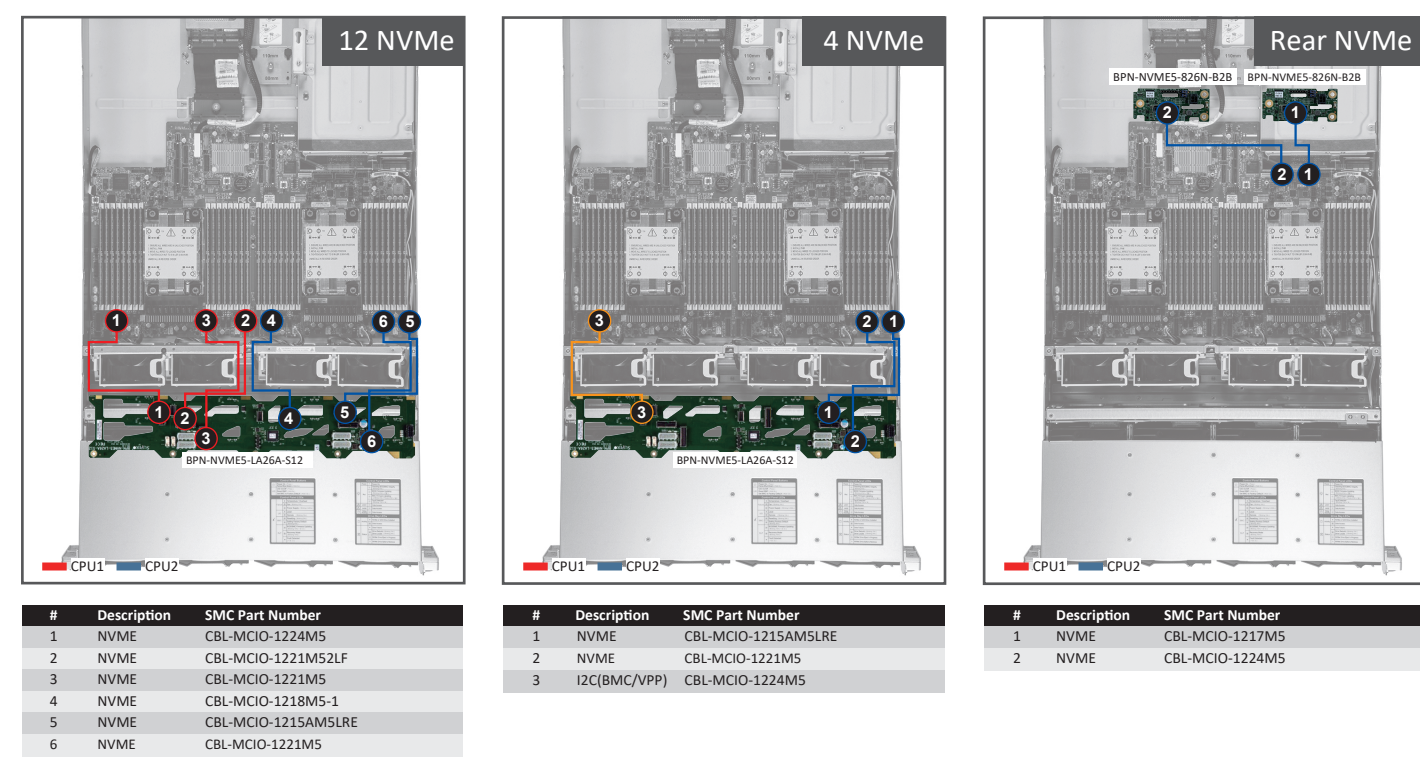
**WARNING:**  
To reduce risk of electric shock/damage to equipment, disconnect power from server by disconnecting all power cords from electrical outlets. If any CPU socket empty, install protective plastic CPU cap.

**PRODUCT RESOURCES:**  
For more information go to:  
<http://www.supermicro.com/support>

## Rear View



## NVMe Drive Bay Cable Routing



## Storage AOC Drive Bay Cable Routing

