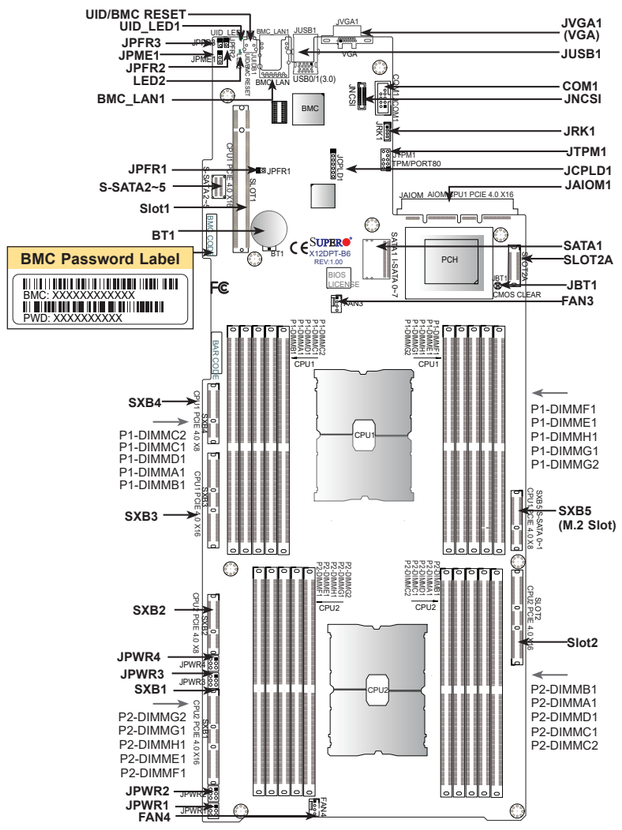
SUPERMICRO® SuperServer 220BT-H series and 620BT-H series Quick Reference Guide

Board Layout



Jumper	Description	Default Setting
JBT1	CMOS Clear	Open (Normal)
JPME1	ME Manufacturing Recovery	Pins 1-2 (Normal)

LED	Description	Status
UID_LED1	Unit Identifier (UID) LED	Solid Blue: Unit Identified
LED2	BMC Heartbeat LED	Blinking Green: BMC Norma Solid Greene: (during BMC Reset or a Cold Reboot)

Connector	Description
BT1	Onboard battery
COM1	I/O COM port
FAN3, FAN4	CPU/System fan headers (FAN1 & FAN2 in the HDD backplane)
BMC_LAN1	Dedicated BMC LAN port
I-SATA 0~7 (SATA1)	Intel® PCH SATA 3.0 ports (with RAID 0, 1, 5, 10)
S-SATA 0~1, S-SATA 2~5	S-SATA 3.0 connectors supported by the Intel PCH
JNCSI	NC-SI (Network Controller Sideband Interface) connector (See Note 1 below)
JPWR1/JPWR2/JPWR3/JPWR4	6-pin power connectors
JRK1 (RAID_KEY)	Intel VROC key header for NVMe RAID (See Note 2 below)
JAIOM	AIOM (CPU1 PCIe 4.0x16) networking slot
JTPM1	Trusted Platform Module/Port 80 connector
JVGA1	VGA port
SLOT1	PCIe 4.0 x16 slot (right hand riser) supported by CPU1
SLOT2	PCIe 4.0 x16 slot (left hand riser) supported by CPU2
SXB1	PCIe 4.0 x16 slot supported by CPU2
SXB2	PCIe 4.0 x8 slot supported by CPU2
SXB3	PCIe 4.0 x16 slot supported by CPU1
SXB4	PCIe 4.0 x8 slot supported by CPU1 for SMCI-proprietary storage devices
SXB5 (S~SATA0~1)	PCIe 4.0 x8 slot supported by CPU1 for dual hybrid M.2
UID/BMC RESET (JUIDB1)	Unit Identifier (UID) & BMC Reset switch
USB0/1 (3.0)	Two USB 3.0 connectors

Memory Support

Memory Population for the X12 DP Motherboard, 20 DIMM Slots

CPUs/DIMMs	Memory Population Sequence
1 CPU & 1 DIMM	A1
1 CPU & 2 DIMMs*	A1, E1
1 CPU & 4 DIMMs*	A1, E1, C1, G1
1 CPU & 6 DIMM	A1, E1, C1, G1, B1, F1
1 CPU & 8 DIMMs*	A1, E1, C1, G1, B1, F1, D1, H1
1 CPU & 9 DIMMs	A1, E1, C1, G1, B1, F1, D1, H1, C2 ***(C2: Reserved for PMem 200 Series only)***
2 CPUs & 2 DIMMs*	CPU1: A1 CPU2: A1
2 CPUs & 4 DIMMs*	CPU1: A1, E1 CPU2: A1, E1
2 CPUs & 6 DIMMs	CPU1: A1, E1, C1, G1 CPU2: A1, E1
2 CPUs & 8 DIMMs*	CPU1: A1, E1, C1, G1 CPU2: A1, E1, C1, G1
2 CPUs & 10 DIMMs	CPU1: A1, E1, C1, G1, B1, F1 CPU2: A1, E1, C1, G1
2 CPUs & 12 DIMMs*	CPU1: A1, E1, C1, G1, B1, F1 CPU2: A1, E1, C1, G1, B1, F1
2 CPUs & 14 DIMMs	CPU1: A1, E1, C1, G1, B1, F1, D1, H1 CPU2: A1, E1, C1, G1, B1, F1
2 CPUs & 16 DIMMs*	CPU1: A1, E1, C1, D1, B1, F1, G1, H1 CPU2: A1, E1, C1, D1, B1, F1, G1, H1
2 CPUs & 18 DIMMs	CPU1: A1, E1, C1, D1, B1, F1, G1, H1, C2 ***(C2: Reserved for PMem 200 Series only)*** CPU2: A1, E1, C1, D1, B1, F1, G1, H1, C2 ***(C2: Reserved for PMem 200 Series only)***

Note 1: P1-DIMMC2 and P2-DIMMC2 are reserved for Intel® Optane™ PMem 200 Series only.

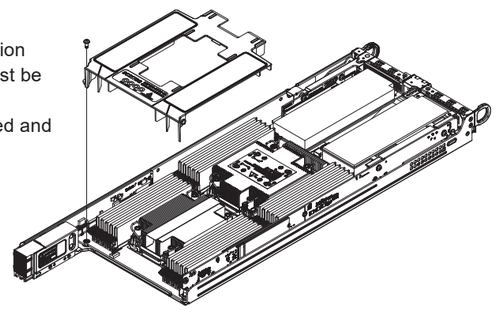
Note 2: To maximize memory performance, please use the memory configurations marked with "*" above (also shaded in orange) as these configurations are recommended by Supermicro for optimal memory performance.

Air Shroud installation

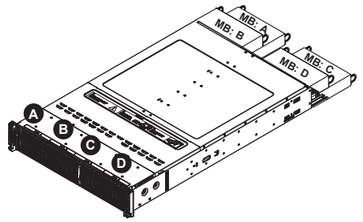
Installing the Air Shrouds

The motherboard, any expansion cards, and all components must be installed in the node tray.

Place the air shroud as pictured and secure with a screw.

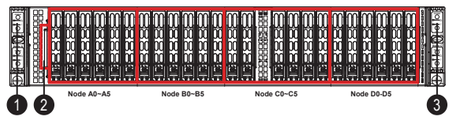


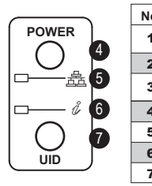
Nodes and Corresponding Hard Drives



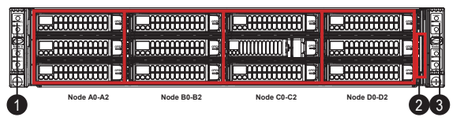
Drives Controled by Nodes	
Motherboard B controls HDDs B0, B1, B2, B3, B4, and B5	Motherboard D controls HDDs D0, D1, D2, D3, D4, and D5
Motherboard A controls HDDs A0, A1, A2, A3, A4, and A5	Motherboard C controls HDDs C0, C1, C2, C3, C4, and C5

Front view & Interface

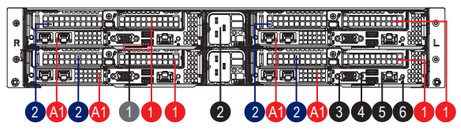




No.	Description
1	Control Panels for Node A (bottom) and Node B (top)
2	Service Tag
3	Control Panels for Node C (bottom) and Node D (top)
4	Power Button
5	NIC LED
6	Information LED
7	BMC Button/UID LED

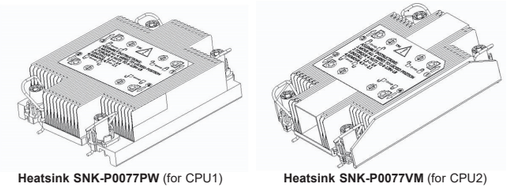


Rear View



No.	Description
1	BMC Unique Password Label
2	Redundant Power Supply
3	VGA Port
4	USB Ports
5	LAN Port
6	Dual Function Switch
1	PCIe 4.0 x16 slot (CPU1) in each node
2	PCIe 4.0 x16 slot (CPU1) in each node
A1	AIOM PCIe 4.0 x16 slot (CPU1) in each node

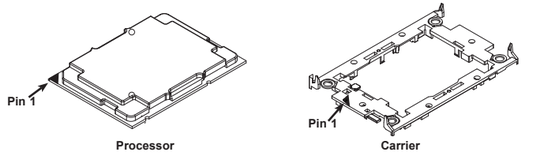
Heatsinks



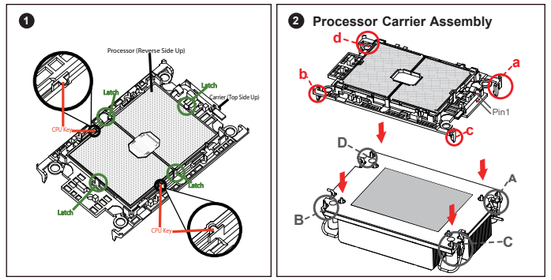
Heatsink SNK-P0077PW (for CPU1)

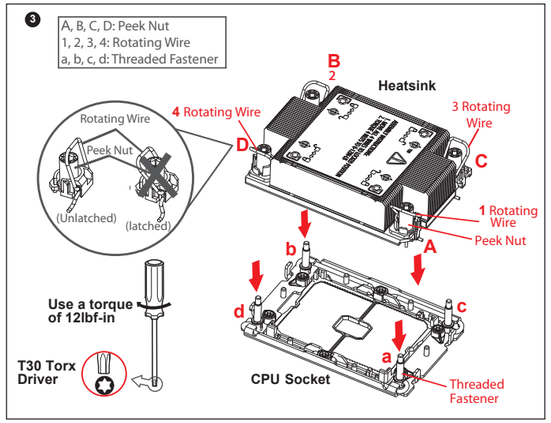
Heatsink SNK-P0077VM (for CPU2)

CPU Installation



Processor **Carrier**





Caution

SAFETY INFORMATION

IMPORTANT: See installation instructions and safety warning before connecting system to power supply.
http://www.supermicro.com/about/policies/safety_information.cfm

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

WARNING:

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.
For more information go to : http://www.supermicro.com/support