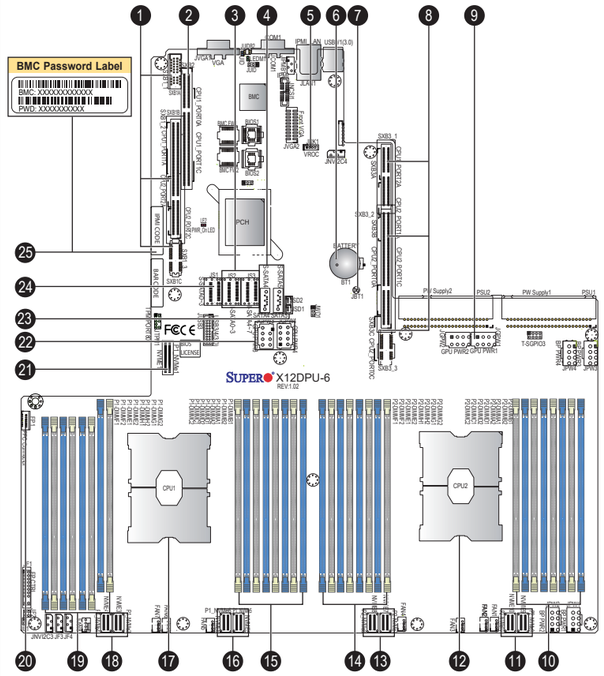
SUPERMICRO® SuperServer 220U-MTNR Quick Reference Guide

Board Layout



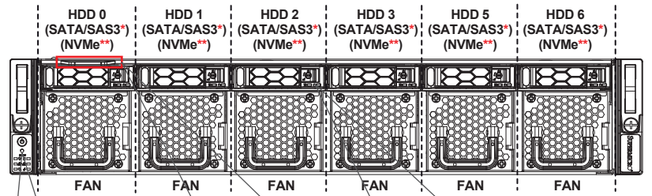
No.	Description
1	SXB1A/1B/1C: Proprietary PCI-e Slot used for WIO-Left Devices (x16 From CPU1, x16 From CPU2)
2	SXB2: Proprietary PCI-e Slot for WIO-Right Devices (x16 From CPU1)
3	I-SATA0~3, I-SATA4~7: SATA 3.0 Ports (Intel PCH)
4	S-SATA 4, 5: SATA 3.0 Ports (Intel SCU)
5	VROC : Intel VROC Key Header for NVMe RAID
6	BT1 : Onboard CMOS battery
7	JBT1: CMOS Clear
8	SXB3A/3B/3C: Proprietary PCI-e Slot for Ultra Riser Devices (x8 From CPU1, x32 From CPU2)
9	JGPW1/JGPW2: GPU 8-pin power connectors
10	P2-DIMMA1/B1/C1/D1(Blue) and P2-DIMMA2/B2/C2/D2(Black)
11	P2-NVMe 9/10: PCI-E 4.0 x8 NVME ports
12	CPU2
13	P2-NVMe 7/8: PCI-E 4.0 x8 NVME ports
14	P2-DIMMG2/G1/H2/H1(Blue) and P2-DIMME2/E1/F2/F1(Black)
15	P1-DIMMB1/B2/A1/A2(Blue) and P1-DIMMD1/D2/C1/C2(Black)
16	P1-NVMe 5/6: PCI-E 4.0 x8 NVME ports
17	CPU1 (Install CPU1 first)
18	P1-NVMe 3/4: PCI-E 4.0 x8 NVME ports
19	P1-DIMMG2/G1/H2/H1(Blue) and P1-DIMME2/E1/F2/F1(Black)
20	FP1: FFC (Flat Flexible Cable) connector
21	P1-NVMe1: PCI-E 4.0 x8 NVME ports
22	JGPW1/JGPW2: GPU 8-pin power connectors
23	JSD1/JSD2: SATA DOM (Device_on_Module) Power Connectors
24	S-SATA0~3: SATA 3.0 Ports (Intel SCU)
25	BMC Password Label

Memory Support

CPUs/DIMMs	Memory Population Sequence * Unbalanced, not recommended.
2 CPUs & 2 DIMMs	CPU1: P1-DIMMA1 CPU2: P2-DIMMA1
2 CPUs & 4 DIMMs	CPU1: P1-DIMMA1/P1-DIMME1 CPU2: P2-DIMMA1/P2-DIMME1
2 CPUs & 6 DIMMs*	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1 CPU2: P2-DIMMA1/P2-DIMME1
2 CPUs & 8 DIMMs	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1 CPU2: P2-DIMMA1/P2-DIMME1/P2-DIMMC1/P2-DIMMG1
2 CPUs & 10 DIMMs*	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1/P1-DIMMB1/P1-DIMMF1 CPU2: P2-DIMMA1/P2-DIMME1/P2-DIMMC1/P2-DIMMG1
2 CPUs & 12 DIMMs	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1/P1-DIMMB1/P1-DIMMF CPU2: P2-DIMMA1/P2-DIMME1/P2-DIMMC1/P2-DIMMG1/P2-DIMMB1/P2-DIMMF1
2 CPUs & 14 DIMMs*	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1/P1-DIMMB1/P1-DIMMF1/P1-DIMMD1/P1-DIMMH1 CPU2: P2-DIMMA1/P2-DIMME1/P2-DIMMC1/P2-DIMMG1/P2-DIMMB1/P2-DIMMF1
2 CPUs & 16 DIMMs	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1/P1-DIMMB1/P1-DIMMF1/P1-DIMMD1/P1-DIMMH1 CPU2: P2-DIMMA1/P2-DIMME1/P2-DIMMC1/P2-DIMMG1/P2-DIMMB1/P2-DIMMF1/P2-DIMMD1/P2-DIMMH1
2 CPUs & 18 DIMMs*	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1/P1-DIMMB1/P1-DIMMF1/P1-DIMMD1/P1-DIMMH1/P1-DIMMA2/ P1-DIMME2/P1-DIMMC2/P1-DIMMG2 CPU2: P2-DIMMA1/P2-DIMME1/P2-DIMMC1/P2-DIMMG1/P2-DIMMB1/P2-DIMMF1
2 CPUs & 20 DIMMs*	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1/P1-DIMMB1/P1-DIMMF1/P1-DIMMD1/P1-DIMMH1/P1-DIMMA2/ P1-DIMME2/P1-DIMMC2/P1-DIMMG2 CPU2: P2-DIMMA1/P2-DIMME1/P2-DIMMC1/P2-DIMMG1/P2-DIMMB1/P2-DIMMF1/P2-DIMMD1/P2-DIMMH1
2 CPUs & 22 DIMMs*	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1/P1-DIMMB1/P1-DIMMF1/P1-DIMMD1/P1-DIMMH1/P1-DIMMA2/ P1-DIMME2/P1-DIMMC2/P1-DIMMG2/P1-DIMMB2/P1-DIMMF2/P1-DIMMD2/P1-DIMMH2 CPU2: P2-DIMMA1/P2-DIMME1/P2-DIMMC1/P2-DIMMG1/P2-DIMMB1/P2-DIMMF1
2 CPUs & 24 DIMMs	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1/P1-DIMMB1/P1-DIMMF1/P1-DIMMD1/P1-DIMMH1/P1-DIMMA2/ P1-DIMME2/P1-DIMMC2/P1-DIMMG2/P1-DIMMB2/P1-DIMMF2/P1-DIMMD2/P1-DIMMH2 CPU2: P2-DIMMA1/P2-DIMME1/P2-DIMMC1/P2-DIMMG1/P2-DIMMB1/P2-DIMMF1/P2-DIMMD1/P2-DIMMH1
2 CPUs & 28 DIMMs*	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1/P1-DIMMB1/P1-DIMMF1/P1-DIMMD1/P1-DIMMH1/P1-DIMMA2/ P1-DIMME2/P1-DIMMC2/P1-DIMMG2/P1-DIMMB2/P1-DIMMF2/P1-DIMMD2/P1-DIMMH2 CPU2: P2-DIMMA1/P2-DIMME1/P2-DIMMC1/P2-DIMMG1/P2-DIMMB1/P2-DIMMF1/P2-DIMMA2/P2-DIMME2/P2-DIMMC2/ P2-DIMMG2/P2-DIMMB2/P2-DIMMF2
2 CPUs & 32 DIMMs	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1/P1-DIMMB1/P1-DIMMF1/P1-DIMMD1/P1-DIMMH1/P1-DIMMA2/ P1-DIMME2/P1-DIMMC2/P1-DIMMG2/P1-DIMMB2/P1-DIMMF2/P1-DIMMD2/P1-DIMMH2 CPU2: P2-DIMMA1/P2-DIMME1/P2-DIMMC1/P2-DIMMG1/P2-DIMMB1/P2-DIMMF1/P2-DIMMD1/P2-DIMMH1/P2-DIMMA2/ P2-DIMME2/P2-DIMMC2/P2-DIMMG2/P2-DIMMB2/P2-DIMMF2/P2-DIMMD2/P2-DIMMH2

Note: Numbers of DIMM not listed are not supported

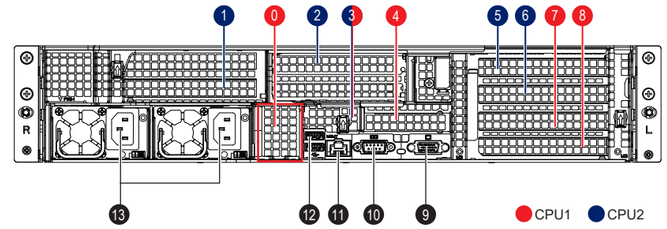
Front view



No.	Description	No.	Description
1	Power Button	6	HDD Activity LED
2	UID Button/BMC Reset	7	Universal Information LED
3	Power LED	8	Service/Asset Tag with System Serial Number and BMC Unique Password
4	LAN1 and LAN2 LED	9	Drive Device Activity LED
5	Power Failure LED	10	Drive Device Status LED

* SAS3 support requires additional parts in optional parts list.
** NVMe support requires additional parts in optional parts list

Rear View

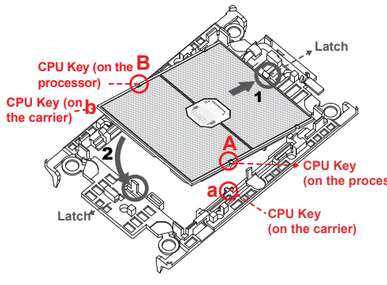


No.	Description
0	Ultra Riser Networking Slot
1	PCI-E 4.0 x16 Slot (FH, 10.5"L)
2	PCI-E 4.0 x8 (in x16) Slot (FH, 10.5"L); (PCI-E 4.0 x16 Slot with AOC-2UR668G4)
3	PCI-E 4.0 x8 (in x16) Slot (Internal LP) from CPU2; (from CPU1 with AOC-2UR668G4)
4	PCI-E 4.0 x16 Slot (LP)
5	PCI-E 4.0 x8 Slot (FH, 10.5"L)*
6	PCI-E 4.0 x8 Slot (FH, 10.5"L)*
7	PCI-E 4.0 x8 Slot (FH, 10.5"L)*
8	PCI-E 4.0 x8 Slot (FH, 10.5"L)*
9	VGA port
10	Serial Port
11	Dedicated IPMI LAN Port
12	2x USB 3.0 Ports
13	Redundant 1600W Titanium Level Power Supplies

*Optional RSC-W2-66G4 enables PCI-E x16 in slots 5, 7. Slots 6,8 will be disabled.

CPU Installation

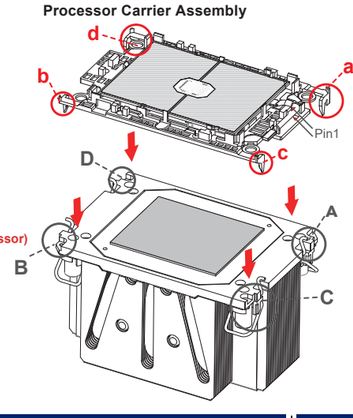
1. Put processor into bracket – attention to the lineup Pin and key on both processor and carrier.



Processor Carrier Assembly (with CPU mounted on the Processor Clip)

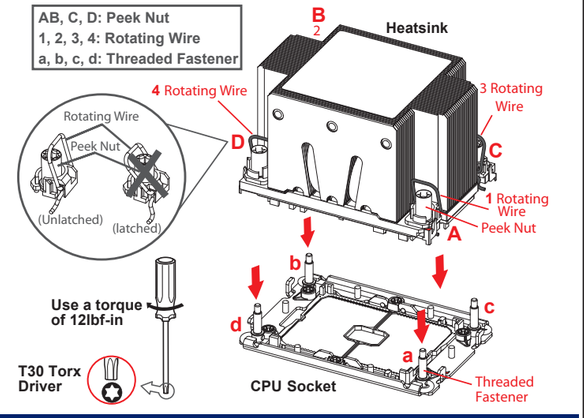
2. Put processor carrier module into HS.

Processor Carrier Assembly

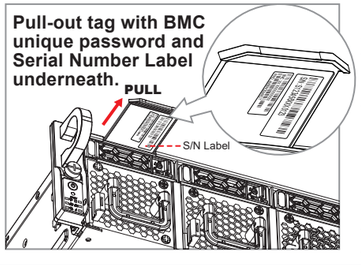


3. Put processor heatsink module into MB.

AB, C, D: Peek Nut
1, 2, 3, 4: Rotating Wire
a, b, c, d: Threaded Fastener



System Information



Each system comes with a unique default password for the ADMIN user. This can be found on a sticker on the motherboard and a sticker underneath the service tag on chassis.
If necessary, the password can be reset by the Supermicro IPMICFG tool.

For more information, please visit https://www.supermicro.com/en/solutions/management-software/bmc-resources

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

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.

CAUTION:

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

CAUTION:

This unit has redundant power sources.
Please disconnect all the power cords before servicing.

PRODUCT RESOURCES:

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