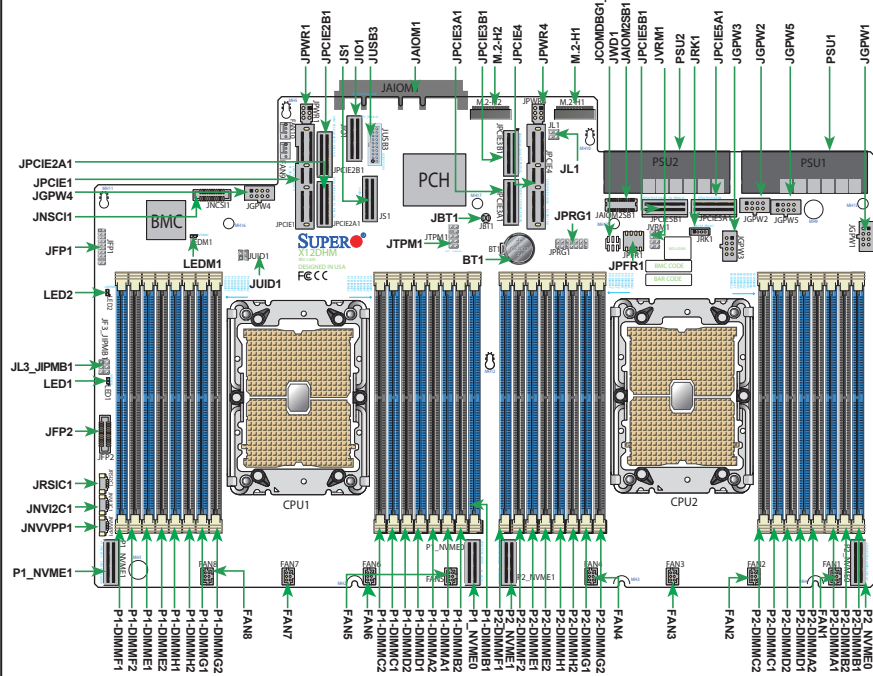


# SUPERMICR<sup>®</sup> SuperServer 120H-TNR Quick Reference Guide

## Board Layout



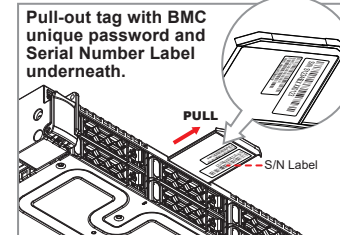
Jumper	Description	Default Setting
JBT1	CMOS clear	Open (Normal)
BT1	Onboard CMOS battery	
FAN1 ~ FAN8	6-pin system cooling fan headers	
JA1OM1	The Supermicro Advanced I/O Module (AIOM) slot	
JF3_JIPMB1	6-pin BMC external I/O header (for an BMC card)	
JFP1	Front control panel header	
JFP2	Front VGA header	
JGPW1-5	8-pin power connector	
JIO1	Low-profile slimSAS 8x I/O connector	
JL1	Chassis intrusion header	
JNC511	NC-SI (Network Controller Sideband Interface) connector	
JNV2C1	NVMe SMBus (PC) headers used for PCIe hot-plug SMBus clock and data connections	
JNVVPP1	CPU VPP bus header for backplane NVMe riser card device	
JPCIE1, JPCIE4	CPU PCIe 4.0 x8 slots	
JPCIE2A1, JPCIE2B1, JPCIE3A1, JPCIE3B1, JPCIE4A1, JPCIE4B1	CPU PCIe 4.0 x8 slots	
JPRG1	Complex Programmable Logical Device (CPLD) header	
JRWR1, JPWR4	6-pin power connector	
JRSI2C1	SMBus header for riser card	
JS1	I-SATA 0-7 connector	
JTPM1	Trusted Platform Module/Port 80 Connector	
JUID1	Multi-purpose UID switch and reset switch	
JUSB3	USB 3.0 header (supports two USB 3.0 ports)	
JVRM1	VRM SMB clock to BMC	
M.2-H1/M.2-H2	M.2 PCIe 3.0 x2 or SATA 3.0 hybrid slots (Supports M-Key 2280 and 22110) supported by PCH	
P1_NVME0/P1_NVME1/P2_NVME1	NVMe PCIe 4.0 x4 ports (Note: When installing an NVMe device on a motherboard, please be sure to connect JNVME0 first for your system to work properly.)	
PSU1-2	Power supply unit connectors	
JVRK1	Intel VROC RAID key header for NVMe SSD	

## Memory Support

CPU/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/P2-DIMMB1/P2-DIMMF1	
2 CPUs & 12 DIMMs*	CPU1: P1-DIMMA1/P1-DIMME1/P1-DIMMC1/P1-DIMMG1/P1-DIMMB1/P1-DIMMF1 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/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	
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/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	
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/P2-DIMMD1/P2-DIMMH1/ P2-DIMMA2/P2-DIMME2/P2-DIMMC2/P2-DIMMG2/P2-DIMMB2/P2-DIMMF2/P2-DIMMD2/P2-DIMMH2	
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/ P2-DIMMA2/P2-DIMME2/P2-DIMMC2/P2-DIMMG2/P2-DIMMB2/P2-DIMMF2/P2-DIMMD2/P2-DIMMH2	
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-DIMMD1/P2-DIMMH1/ P2-DIMMA2/P2-DIMME2/P2-DIMMC2/P2-DIMMG2/P2-DIMMB2/P2-DIMMF2/P2-DIMMD2/P2-DIMMH2	
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

## 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](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>

## CPU Installation

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

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

**CPU Socket**

Use a torque of 12lbf-in

T30 Torx Driver

## Front View

No.	Description	No.	Description
1	USB 3.0 Port	4	Dedicated BMC LAN/USB/VGA Ports
2	Front Control Panel	5	Slot A2, AIOM/OC3.0 Networking Slot (CPU2)
3	Service/Asset Tag with System Serial Number and BMC Unique Password	6	Slot A1, AIOM/OC3.0 Networking Slot (CPU1)

## Rear View

No.	Description	No.	Description
1	Redundant Power Supplies	9	Power Supply LED Solid Green: A valid power source is connected to the PSU and the PSU is operational
2	Dedicated BMC LAN Port*		Power Supply LED Blinking Green: PSU is in standby state (12VSB standby power only).
3	Slot 1, PCI-E 4.0 x16 Slot (CPU2)		Power Supply LED Solid Green: (Scenario 1) Power source to the PSU is disconnected or invalid but a second PSU is operational. (Scenario 2) PSU failure and the PSU is not operational.
4	Slot 2, PCI-E 4.0 x16 Slot (CPU1)		Power Supply LED Blinking Green: A PSU warning event occurred and the PSU is still operational.
5	Slot 3, PCI-E 4.0 x16 Slot (CPU2)		
6	Slot A1, AIOM/OC3.0 Networking Slot (CPU1)		
7	VGA port		
8	2x USB 3.0 Ports*		

\* Relocated to the front of the chassis in Front IO configuration

LBL-2392-T-QRG



Rev 1.0

## NVMe Drive Bay Cable Routing

Drive Configuration	Cable Part Number	① Drive Bay 0-1	② Drive Bay 2-3	③ Drive Bay 4-5	④ Drive Bay 6-7	⑤ Drive Bay 8-9	⑥ Drive Bay 10-11
12 NVMe		CBL-SAST-1213LP-85	CBL-SAST-1212LP-85	CBL-SAST-1293LP-85	CBL-SAST-1238LP-85	CBL-SAST-1214LP-85	CBL-SAST-1211LP-85
8 NVMe		CBL-SAST-1213LP-85	CBL-SAST-1212LP-85	CBL-SAST-1233LP-85	CBL-SAST-1214LP-85	Not Used	Not Used
4 NVMe		Not Used	Not Used	Not Used	Not Used	CBL-SAST-1214LP-85	CBL-SAST-1211LP-85

## Storage AOC Drive Bay Cable Routing

Drive Configuration	Cable Part Number	① Drive Bay 0-7	② Drive Bay 8-11
12 SAS/SATA		CBL-SAST-1273LP-100	CBL-SAST-1262LP-100
8 SAS/SATA		CBL-SAST-1273LP-100	Not Used
4 SAS/SATA		Not Used	CBL-SAST-1262LP-100

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