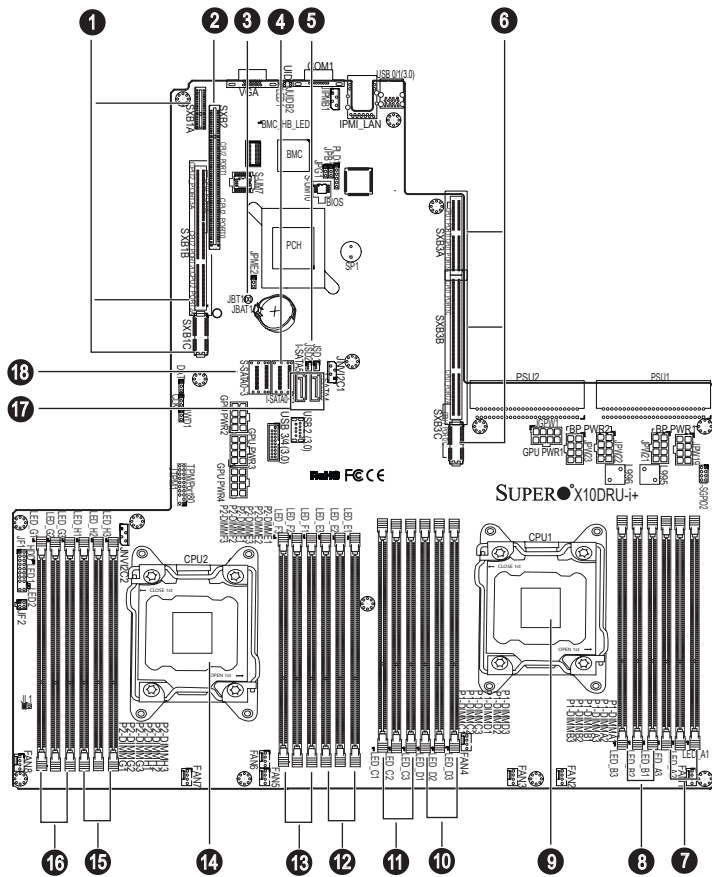


SUPERMICR SuperServer 2028U-TN24R4T+ Quick Reference Guide

Board Layout



No.	Description
1	SXB1A/1B/1C: Proprietary PCI-e Slot used for WIO-Left Devices (supported by CPU2)
2	SXB2: Proprietary PCI-e 3.0 x8 Slot for WIO-Right Devices or Add-on Cards (supported by CPU2)
3	JBT1: CMOS Clear
4	I-SATA0~3: SATA 3.0 Ports (Intel PCH)
5	JSD1/JSD2: SATA DOM (Device_on_Module) Power Connectors
6	SXB3A/3B/3C: Proprietary PCI-e Slot for Ultra Riser Devices (supported by CPU1)
7	P1-DIMMA1(Blue)/P1-DIMMA2/P1-DIMMA3 slot
8	P1-DIMMB1(Blue)/P1-DIMMB2/P1-DIMMB3 slot
9	CPU1 (Install CPU1 first)
10	P1-DIMMD1(Blue)/P1-DIMMD2/P1-DIMMD3 slot
11	P1-DIMMC1(Blue)/P1-DIMMC2/P1-DIMMC3 slot
12	P2-DIMME1(Blue)/P2-DIMME2/P2-DIMME3 slot
13	P2-DIMMF1(Blue)/P2-DIMMF2/P2-DIMMF3 slot
14	CPU2
15	P2-DIMMH1(Blue)/P2-DIMMH2/P2-DIMMH3 slot
16	P2-DIMMG1(Blue)/P2-DIMMG2/P2-DIMMG3 slot
17	I-SATA 4~5: SATA 3.0 Ports (Intel PCH)
18	S-SATA0~3: SATA 3.0 Ports (Intel SCU)

Memory

Processors and their Corresponding Memory Modules												
CPU#	Corresponding DIMM Modules											
CPU 1	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3
CPU 2	E1	E2	E3	F1	F2	F3	G1	G2	G3	H1	H2	H3

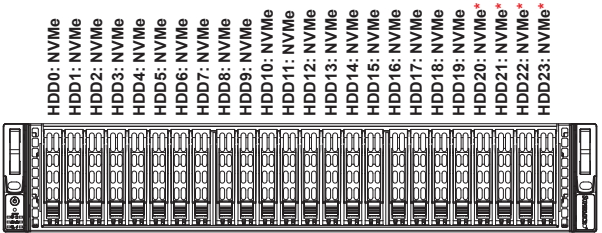
Processor and Memory Module Population for Optimal Performance	
CPU and Memory Population Configuration Table (For memory to work properly, please follow the instructions below.)	
1 CPU & 2 DIMMs	CPU1 P1-DIMMA1/P1-DIMMB1
1 CPU & 4 DIMMs	CPU1 P1-DIMMA1/P1-DIMMB1, P1-DIMMC1/P1-DIMMD1
1 CPU & 5~8 DIMMs	CPU1 P1-DIMMA1/P1-DIMMB1, P1-DIMMC1/P1-DIMMD1 + Any memory pairs in P1-DIMMA2/P1-DIMMB2/P1-DIMMC2/P1-DIMMD2 slots
2 CPUs & 4 DIMMs	CPU1 + CPU2 P1-DIMMA1/P1-DIMMB1, P2-DIMME1/P2-DIMMF1
2 CPUs & 6 DIMMs	CPU1 + CPU2 P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1, P2-DIMME1/P2-DIMMF1
2 CPUs & 8 DIMMs	CPU1 + CPU2 P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1, P2-DIMME1/P2-DIMMF1/P2-DIMMG1/P2-DIMMH1
2 CPUs & 8~16 DIMMs	CPU1/CPU2 P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1, P2-DIMME1/P2-DIMMF1/P2-DIMMG1/P2-DIMMH1 + Any memory pairs in P1, P2 DIMM slots
2 CPUs & 16 DIMMs	CPU1/CPU2 P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1, P2-DIMME1/P2-DIMMF1/P2-DIMMG1/P2-DIMMH1, P1-DIMMA2/P1-DIMMB2/P1-DIMMC2/P1-DIMMD2, P2-DIMME2/P2-DIMMF2/P2-DIMMG2/P2-DIMMH2
2 CPUs & 16~24 DIMMs	CPU1/CPU2 P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1, P2-DIMME1/P2-DIMMF1/P2-DIMMG1/P2-DIMMH1, P1-DIMMA2/P1-DIMMB2/P1-DIMMC2/P1-DIMMD2, P2-DIMME2/P2-DIMMF2/P2-DIMMG2/P2-DIMMH2, P1-DIMMA3/P1-DIMMB3/P1-DIMMC3/P1-DIMMD3, P2-DIMME3/P2-DIMMF3/P2-DIMMG3/P2-DIMMH3

Populating RDIMM/LRDIMM DDR4 Memory Modules									
Type	Ranks Per DIMM and Data Width	DIMM Capacity (GB)		Speed (MT/s); Voltage (V); Slots per Channel (SPC) and DIMMs per Channel (DPC)					
				3 Slots per Channel					
				1 DPC		2 DPC		3 DPC	
		4 GB	8 GB	E5-2600 V3	E5-2600 V4	E5-2600 V3	E5-2600 V4	E5-2600 V3	E5-2600 V4
RDIMM	SRx4	8 GB	16 GB	2133	2400	1866	2133	1600	1600
RDIMM	SRx8	4 GB	8 GB	2133	2400	1866	2133	1600	1600
RDIMM	DRx8	8 GB	16 GB	2133	2400	1866	2133	1600	1600
RDIMM	DRx4	16 GB	32 GB	2133	2400	1866	2133	1600	1600
LRDIMM	QRx4	32 GB	64 GB	2133	2400	2133	2400	1600	1866
LRDIMM 3DS	8Rx4	64 GB	128 GB	2133	2400	2133	2400	1600	1866

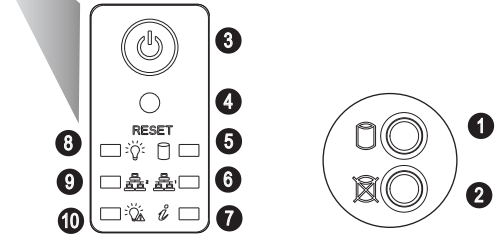
Beep Codes

Beep Code	Error Message	Description
1 beep	Refresh	Circuits have been reset (Ready to power up)
5 short beeps and 1 long beep	Memory error	No memory detected in the system
5 beeps	No Con-In or No Con-Out devices	Con-In: USB or PS/2 keyboard, PCI or Serial Console Redirection, IPMI KVM or SOL Con-Out: Video Controller, PCI or Serial Console Redirection, IPMI SOL
1 beep per device	Refresh	1 beep for each USB device

Front View & Interface

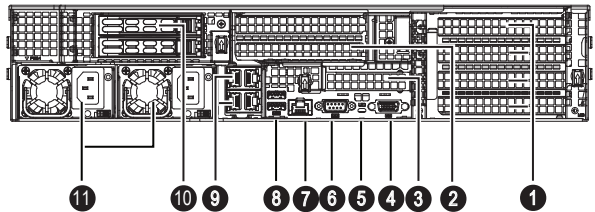


* SATA3/SAS3 support (SATA3/SAS3 needs data connection. SAS3 can be support via AOC (optional)).



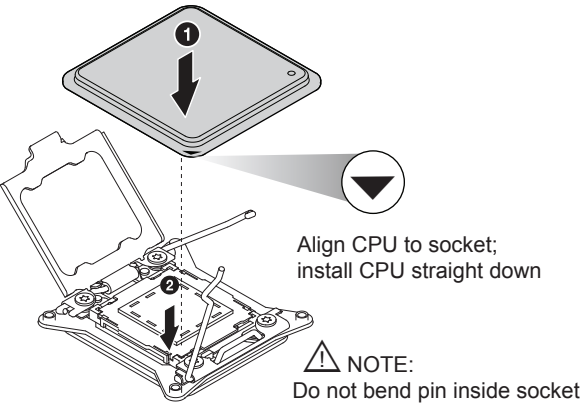
No.	Description	No.	Description
1	Hard Drive Signal	6	LAN1 LED
2	Hard Drive Fail	7	Information LED
3	Power Button	8	Power LED
4	Reset Button	9	LAN2 LED
5	Device Activity LED	10	Power Failure LED

Rear View



No.	Description
1	1 PCI-E 3.0 x16 (CPU2) Expansion Slot (Full-height 4.2", Length 10.5")
2	1 PCI-E 3.0 x16 (CPU1) Expansion Slot (Full-height 4.2", Length 10.5")*
3	1 PCI-E 3.0 x8 (CPU2) Expansion Slot (Low-profile 2.536", Half-Length 6.6")
4	VGA Port
5	UID Button (Unit Identifier Button)
6	COM Port
7	Dedicated LAN for IPMI
8	USB 3.0 Ports
9	LAN Ports (2 or 4)
10	2 rear Hot Swap 2.5" HDD bays
11	Redundant Power Supply Module

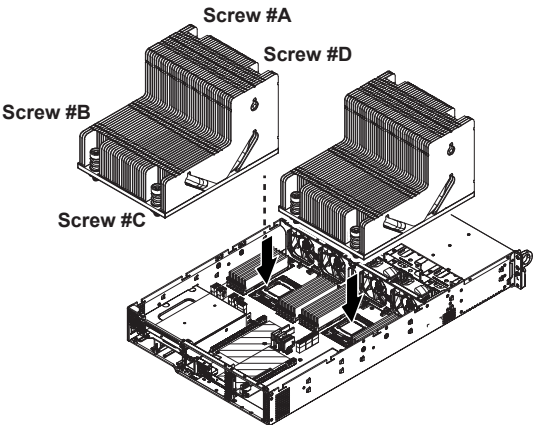
CPU Installation



Align CPU to socket; install CPU straight down

NOTE: Do not bend pin inside socket

Heatsink Installation



1. Place the heatsink on top of the installed CPU.
2. Align the four screws to the socket.
3. Holding the heatsink in place, screw down as shown (cross pattern, in order: A, C, B, D).
4. Note: Only use 6-8 lb/f of torque; otherwise, hand-tighten each screw to avoid damaging the CPU.

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

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.

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

