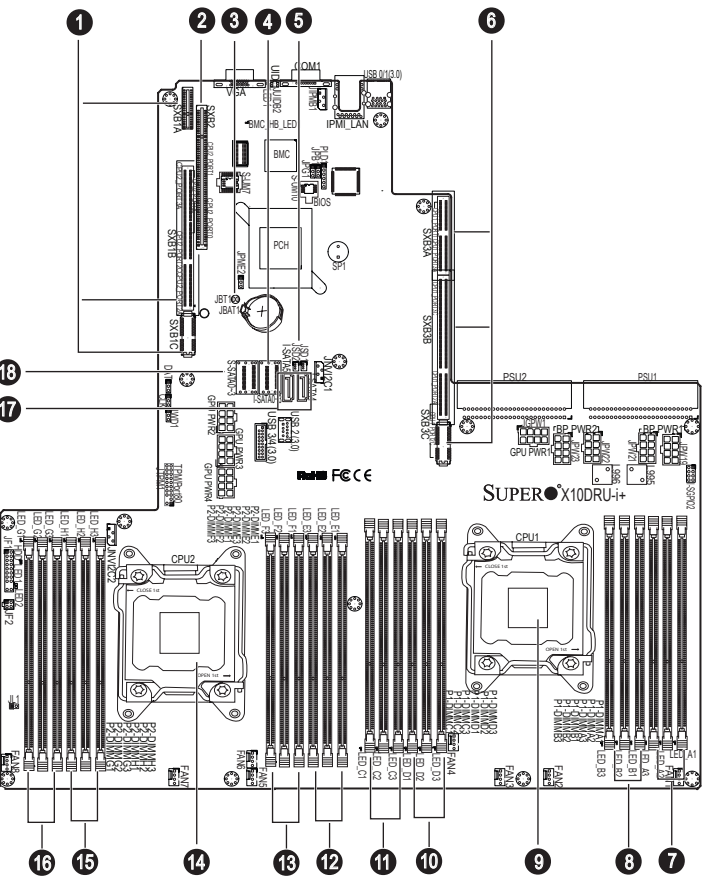


SUPERMICR[®] SuperServer 2028U-TR4+/TRT+/TR4T+/TRTP+/TNRT+/TNR4T+ Quick Reference Guide

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	S-SATA0~3: SATA 3.0 Ports (Intel SCU)
5	I-SATA0~3: SATA 3.0 Ports (Intel PCH)
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	JSD1/JSD2: SATA DOM (Device_on_Module) Power Connectors
18	(I)-SATA 4~5: SATA 3.0 Ports Intel PCH

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

HDD0: SATA3
HDD1: SATA3
HDD2: SATA3
HDD3: SATA3
HDD4: SATA3
HDD5: SATA3
HDD6: SATA3
HDD7: SATA3
HDD8: SATA3
HDD9: SATA3
HDD10: **
HDD11: **
HDD12: **
HDD13: **
HDD14: **
HDD15: **
HDD16: **
HDD17: **
HDD18: **
HDD19: **
HDD20: NVMe**
HDD21: NVMe**
HDD22: NVMe**
HDD23: NVMe**

3

4

5

6

7

8

9

10

*** Only used with an expansion card
** Available only with 2028U-TNRT+ and -TNR4T+
* Not used with 2028U-TNR4T+ and TNRT+

1

2

No.	Description
1	Hard Drive Signal
2	Hard Drive Fail
3	Power Button
4	Reset Button
5	Device Activity LED

No.	Description
6	LAN1 LED
7	Information LED
8	Power LED
9	LAN2 LED
10	Power Failure LED

Rear View

11

10

9

8

7

6

5

4

3

2

1

No.	Description
1	4 PCI-E 3.0 x8 (CPU2) Expansion Slots (Full-height 4.2", Length 10.5")
2	PCI-E 3.0 x8 (CPU1) Expansion Slot (Full height 4.2", Length 10.5")*
3	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	Redundant Power Supply Module
11	PCI-E 3.0 x16 (CPU1) Expansion Slot (Full-height 4.2", Length 10.5")**

* Not Available on TR4T+, TNR4T+ Models
** Not Available on TNRT+, TNR4T+ Models

System	LAN Ports	NVMe
2028U-TR4+	Four GbE	no
2028U-TRT+	Two 10GBase-T	no
2028U-TR4T+	Four 10GBase-T	no
2028U-TRTP+	Two 10G SFP+	no
2028U-TNRT+	Two 10GBase-T	4 port
2028U-TNR4T+	Four 10GBase-T	4 port

CPU Installation

Heatsink Installation

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>

<http://www.supermicro.com>

MNL-1695-QRG

Rev. 1.0a