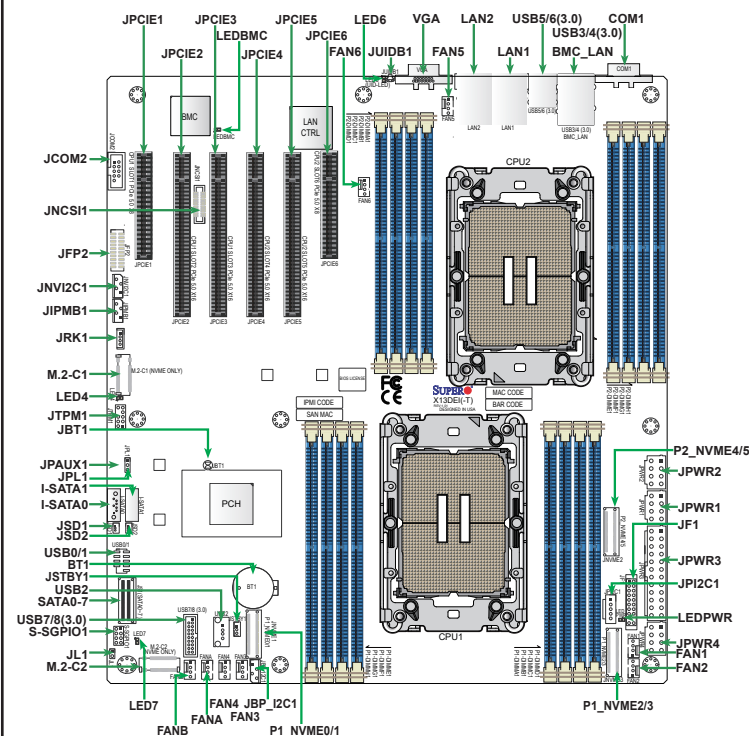


SUPERMICR[®] SuperServer 621P-TR(T) Quick Reference Guide

Board Layout



Quick Reference Table

Jumper	Description	Default Setting
JBT1	CMOS Clear	Open (Normal)
JPAUX1	LAN1, LAN2 AUX Power Enable/Disable	Pins 1-2 (Enabled)
JPL1	LAN1, LAN2 Enable/Disable	Pins 1-2 (Enabled)
LED	Description	Status
LED4, LED7	M.2 LEDs (for M.2-C1, M.2-C2)	Blinking Green: Device Working
LED6	Unit Identifier (UID) LED	Solid Blue: Unit Identified
LEDBMC	BMC Heartbeat LED	Blinking Green: BMC Normal (Active), Solid Green: (During BMC Reset or during a Cold Reboot)
LEDPWR	Power LED	LED On: Onboard Power On
Connector	Description	
BT1	Onboard CMOS Battery	
BMC_LAN	Dedicated BMC LAN Port	
COM1	Rear I/O COM Port	
FAN1 - FAN6, FANA, FANB	CPU/System Fan Headers	
I-SATA0, I-SATA1	Intel PCH Powered I-SATA 3.0 Ports with support of SuperDOM devices *DOM: Disk on Module	
JBP_I2C1	4-pin BMC External I ² C Header	
JCOM2	Front Accessible COM Port Header	
JF1	Front Control Panel Header	
JFP2	Front Accessible VGA Connection Header	
JIPMB1	4-pin BMC External I ² C Header (for Inlet Temperature Sensor)	
JL1	Chassis Intrusion Header	
JNCS11	NC-SI (Network Controller Sideband Interface) Connector	
JNV12C1	NVMe SMBus I ² C Header with hot-plug support	
JPCIE1 (SLOT1), JPCIE6 (SLOT6)	PCIe 5.0 x8 Slots (SLOT1: supported by CPU1, SLOT6: supported by CPU2)	
JPCIE2/3 (SLOT2/3), JPCIE4/5 (SLOT4/5)	PCIe 5.0 x16 Slots (SLOT2/3: supported by CPU1, SLOT4/5: supported by CPU2)	
JPI2C1	Power System Management Bus (SMBus) I ² C Header	
JPWR1, JPWR2, JPWR4	8-pin Power Connectors	
JPWR3	24-pin ATX Power Connector	
JS1 (SATA 0 - SATA7)	SlimSAS x8 Connector with support of eight Intel PCH SATA 3.0 connections (RAID 0, 1, 5, and 10 supported)	
JSD1, JSD2	SATA DOM Power Connectors	
JSTBY1	5V Standby Power Header	

Memory

DIMM Population Guidelines for Optimal Performance

DDR5 Memory Support for the 5th Gen. Intel Xeon Scalable Processors					
Type	Ranks Per DIMM & Data Width (Stack)	DIMM Capacity (GB)		Speed (MT/s); Voltage (V); DIMM Per Channel (DPC)	
		16 Gb (DRAM Density)	24 Gb (DRAM Density)	1DPC ^{Note 1}	2DPC
RDIMM	SRx8 (RC D)	16 GB	24 GB ^{Note 2}	5600	4400
	SRx4 (RC C)	32 GB	48 GB ^{Note 2}		
	SRx4 (RC F) 9x4	32 GB	48 GB ^{Note 2}		
	DRx8 (RC E)	32 GB	48 GB ^{Note 2}		
	DRx4 (RC A)	64 GB	96 GB		
	DRx4 (RC B) 9x4	64 GB	96 GB		
RDIMM 3DS	(4R/8R) x4 (RC A)	2H-128 GB 4H-256 GB	N/A	Not Supported	Not Supported
LRDIMM/LRDIMM-3DS	N/A	N/A	N/A	Not Supported	Not Supported

Note 1: 1DPC applies to 1 SPC (Sockets Per Channel) or 2 SPC implementation.

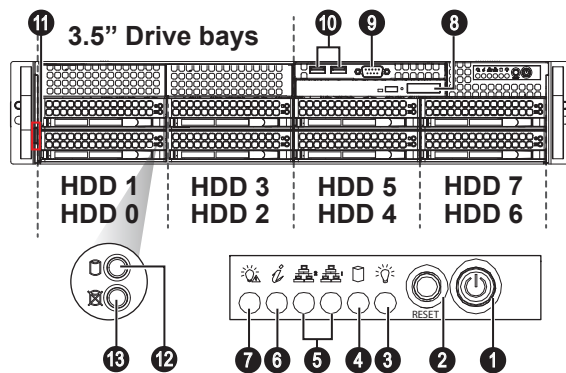
Note 2: The 24 Gb 2DPC configuration with 24 GB and 48 GB DIMMs is NOT recommended.

DDR5 Memory Support for the 4th Gen. Intel Xeon Scalable Processors					
Type	Ranks Per DIMM & Data Width (Stack)	DIMM Capacity (GB)		Speed (MT/s); Voltage (V); DIMM Per Channel (DPC)	
		16Gb (DRAM Density)		1DPC ^(Note)	2DPC
RDIMM	SRx8 (RC D)	16GB	4800	4400	
	SRx4 (RC C)	32GB			
	SRx4 (RC F) 9x4	32GB			
	DRx8 (RC E)	32GB			
	DRx4 (RC A)	64GB			
	DRx4 (RC B) 9x4	64GB			
RDIMM 3DS	(4R/8R) x4 (RC A)	2H-128GB 4H-256GB			
LRDIMM/LRDIMM-3DS	N/A	N/A		Not Supported	Not Supported

Note: This memory configuration is recommended by Supermicro for optimal memory performance. Please use this configuration to maximize your memory performance.

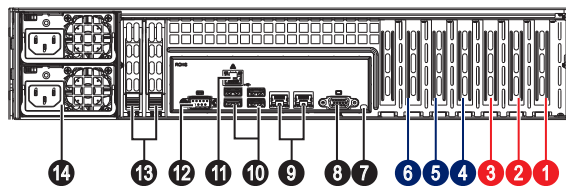
DDR5 Memory Population Table for X13 DP Motherboards (with 16 DIMMs installed)	
1 CPU	Memory Population Sequence
1 CPU & 1 DIMM	P1-DIMMA1 or P1-DIMME1 or P1-DIMMB1 or P1-DIMMF1
1 CPU & 2 DIMMs	P1-DIMMA1 / P1-DIMMG1 or P1-DIMMC1 / P1-DIMME1
1 CPU & 4 DIMMs	P1-DIMMA1 / P1-DIMMC1 / P1-DIMME1 / P1-DIMMG1
1 CPU & 6 DIMM	P1-DIMMA1 / P1-DIMMC1 / P1-DIMMD1 / P1-DIMME1 / P1-DIMMF1 / P1-DIMMG1 or P1-DIMMA1 / P1-DIMMB1 / P1-DIMMC1 / P1-DIMME1 / P1-DIMMG1 / P1-DIMMH1 or P1-DIMMB1 / P1-DIMMC1 / P1-DIMMD1 / P1-DIMME1 / P1-DIMMF1 / P1-DIMMH1 or P1-DIMMA1 / P1-DIMMB1 / P1-DIMMD1 / P1-DIMME1 / P1-DIMMG1 / P1-DIMMH1
1 CPU & 8 DIMMs	P1-DIMMA1 / P1-DIMMB1 / P1-DIMMC1 / P1-DIMMD1 / P1-DIMME1 / P1-DIMMF1 / P1-DIMMG1 / P1-DIMMH1
2 CPUs (Recommended)	Memory Population Sequence
2 CPUs & 2 DIMMs	CPU1: P1-DIMMA1, CPU2: P2-DIMMA1 or CPU1: P1-DIMME1, CPU2: P2-DIMME1 or CPU1: P1-DIMMB1, CPU2: P2-DIMMB1 or CPU1: P1-DIMMF1, CPU2: P2-DIMMF1
2 CPUs & 4 DIMMs	CPU1: P1-DIMMA1 / P1-DIMMG1, CPU2: P2-DIMMA1 / P2-DIMMG1 or CPU1: P1-DIMMC1 / P1-DIMME1, CPU2: P2-DIMMC1 / P2-DIMME1
2 CPUs & 8 DIMMs	CPU1: P1-DIMMA1 / P1-DIMMC1 / P1-DIMME1 / P1-DIMMG1 CPU2: P2-DIMMA1 / P2-DIMMC1 / P2-DIMME1 / P2-DIMMG1
2 CPUs & 12 DIMMs	CPU1: P1-DIMMA1/P1-DIMMC1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1/P1-DIMMG1 CPU2: P2-DIMMA1/P2-DIMMC1/P2-DIMMD1/P2-DIMME1/P2-DIMMF1/P2-DIMMG1 CPU1: P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMME1/P1-DIMMG1/P1-DIMMH1 CPU2: P2-DIMMA1/P2-DIMMB1/P2-DIMMC1/P2-DIMME1/P2-DIMMG1/P2-DIMMH1 CPU1: P1-DIMMA1/P1-DIMMB1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1/P1-DIMMG1/P1-DIMMH1 CPU2: P2-DIMMA1/P2-DIMMB1/P2-DIMMC1/P2-DIMME1/P2-DIMMG1/P2-DIMMH1
2 CPUs & 16 DIMMs	CPU1: P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1/P1-DIMMG1/P1-DIMMH1 CPU2: P2-DIMMA1/P2-DIMMB1/P2-DIMMC1/P2-DIMMD1/P2-DIMME1/P2-DIMMG1/P2-DIMMH1

Front View & Interface



No.	Description
1	Power Button
2	Reset Button
3	Power LED
4	Device Activity LED
5	LAN1 LED & LAN2 LED
6	Information LED
7	Power Fail LED
8	DVD Drive (Optional)
9	COM2
10	2x USB 2.0
11	Service/Asset Tag
12	Hard Drive Signal
13	Hard Drive Fail

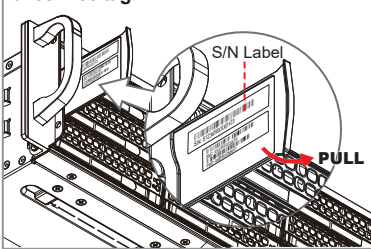
Rear View



No.	Description
1	PCI-E 5.0 x8 Slot, Low Profile From CPU 1
2	PCI-E 5.0 x16 Slot, Low Profile From CPU 1
3	PCI-E 5.0 x16 Slot, Low Profile From CPU 1
4	PCI-E 5.0 x16 Slot, Low Profile From CPU 2
5	PCI-E 5.0 x16 Slot, Low Profile From CPU 2
6	PCI-E 5.0 x8 Slot, Low Profile From CPU 2
7	UID Button (Unit Identifier Button)
8	VGA Port
9	2x LAN Ports
10	USB 3.0 0/1/2/3 Ports
11	Dedicated LAN for IPMI
12	COM Port
13	Optional 2x 2.5" drives Support
14	Redundant Power Supply Modules

System Information

Pull-out tag with BMC unique password and Serial Number Label on the left side of service tag.



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 on the left side of 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>

CPU/Heatsink Installation

