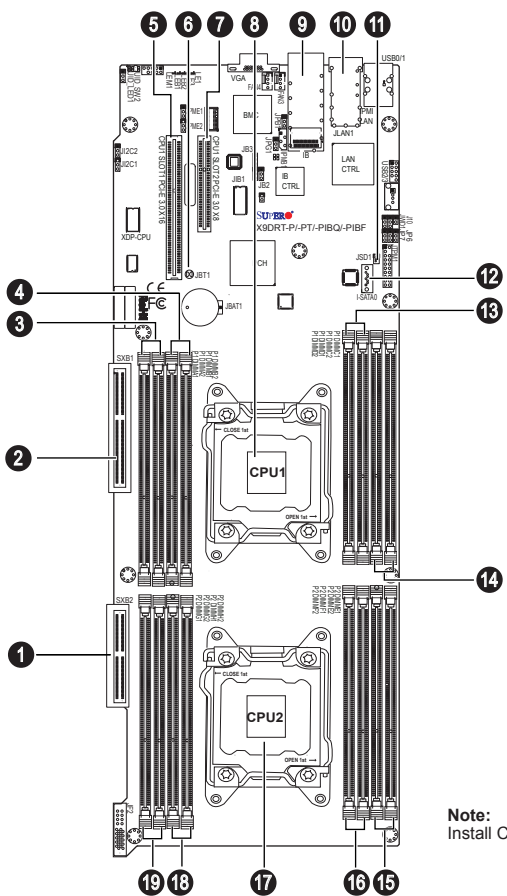


SUPERMICR SuperServer 2027PR-HTR/HTFR/HTTR Quick Reference Guide

Board Layout



Note:
Install CPU1 first

No.	Description
1	PCI-E 3.0 x8 slot1 for SMC-Proprietary Daughter (Add-On) Card
2	PCI-E 3.0 x16 slot2 for SMC-Proprietary 0 slot Add-On Card
3	P1-DIMMA1/P1-DIMMA2 slot
4	P1-DIMMB1/P1-DIMMB2 slot
5	CPU1 Slot1 PCI-E 3.0 x16
6	JBT1: CMOS Clear
7	CPU1 Slot2 PCI-E 3.0 x8
8	CPU1 (Install CPU1 first)
9	InfiniBand (IB) Connector (X9DRT-X9DRT-PIBF)
10	Gigabit LAN1/LAN2 (X9DRT-P/PIBF); 10Gigabit LAN1/LAN2 (X9DRT-PT)
11	JSD1: SATA DOM (Device_on_Module) Power Connector
12	I-SATA0: SATA 0 Connector by SATA DOM
13	P1-DIMMD1/P1-DIMMD2 slot
14	P1-DIMMC1/P1-DIMMC2 slot
15	P2-DIMME1/P2-DIMME2 slot
16	P2-DIMMF1/P2-DIMMF2 slot
17	CPU2
18	P2-DIMMH1/P2-DIMMH2 slot
19	P2-DIMMG1/P2-DIMMG2 slot

MEMORY

Processors and their Corresponding Memory Modules						
CPU#	Corresponding DIMM Modules					
CPU 1	P1-DIMMA1	P1-DIMMB1	P1-DIMMC1	P1-DIMMD1	P1-DIMMA2	P1-DIMMB2
CPU 2	P2-DIMME1	P2-DIMMF1	P2-DIMMG1	P2-DIMMH1	P2-DIMME2	P2-DIMMF2

Processors and Memory Module Population for Optimal Performance	
Number of CPUs + DIMMs	CPU and Memory Population Configuration Table (For memory to work properly, 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 slot
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 & 10-16 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

Installing UDIMM (ECC/non-ECC) Memory

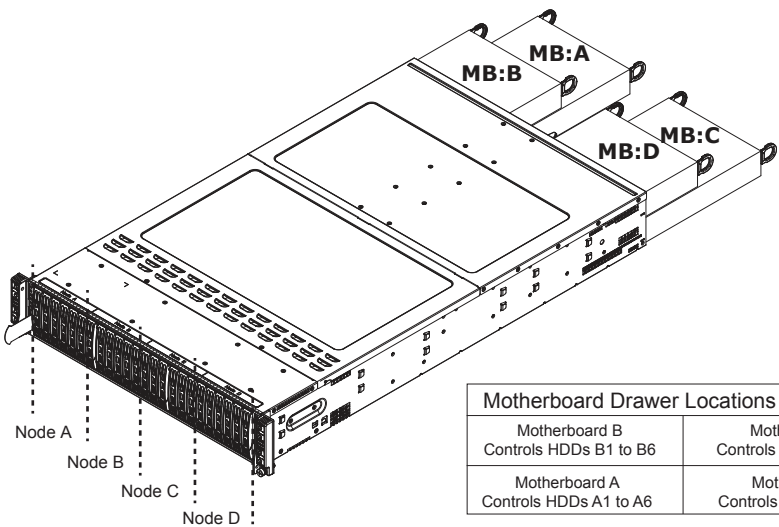
Intel E5-2600 Series Processor RDIMM Memory Support									
Ranks per DIMM & Data Width	Memory Capacity Per DIMM (See the Note below)			Speed (MT/s) and Voltage Validated by Slot per Channel (SPC) and DIMM Per Channel (DPC)					
				1 Slot Per Channel				2 Slots Per Channel	
				1DPC		1DPC		2DPC	
				1.35V	1.5V	1.35V	1.5V	1.35V	1.5V
SRx8 Non-ECC	1GB	2GB	4GB	NA	1066, 1333, 1600, 1866	NA	1066, 1333, 1600	NA	1066, 1333, 1600
DRx8 Non-ECC	2GB	4GB	8GB	NA	1066, 1333, 1600, 1866	NA	1066, 1333, 1600	NA	1066, 1333, 1600
SRx16 Non-ECC	512MB	1GB	2GB	NA	1066, 1333, 1600, 1866	NA	1066, 1333, 1600	NA	1066, 1333, 1600
SRx8 ECC	1GB	2GB	4GB	1066, 1333, 1600	1066, 1333, 1600, 1866	1066, 1333, 1600	1066, 1333, 1600	1066	1066, 1333, 1600
DRx8 ECC	2GB	4GB	8GB	1066, 1333, 1600	1066, 1333, 1600, 1866	1066, 1333, 1600	1066, 1333, 1600	1066	1066, 1333, 1600

Installing RDIMM (ECC) Memory

Intel E5-2600 Series Processor UDIMM Memory Support									
Ranks per DIMM & Data Width	Memory Capacity Per DIMM (See the Note below)			Speed (MT/s) and Voltage Validated by Slot per Channel (SPC) and DIMM Per Channel (DPC)					
				1 Slot Per Channel				2 Slots Per Channel	
				1DPC		1DPC		2DPC	
				1.35V	1.5V	1.35V	1.5V	1.35V	1.5V
SRx8	1GB	2GB	4GB	1066, 1333, 1600	1066, 1333, 1600, 1866	1066, 1333, 1600	1066, 1333, 1600, 1866	1066, 1333, 1600	1066, 1333, 1600, 1866
DRx8	2GB	4GB	8GB	1066, 1333, 1600	1066, 1333, 1600, 1866	1066, 1333, 1600	1066, 1333, 1600, 1866	1066, 1333, 1600	1066, 1333, 1600, 1866
SRx4	2GB	4GB	8GB	1066, 1333, 1600	1066, 1333, 1600, 1866	1066, 1333, 1600	1066, 1333, 1600, 1866	1066, 1333, 1600	1066, 1333, 1600, 1866
DRx4	4GB	8GB	16GB	1066, 1333, 1600	1066, 1333, 1600, 1866	1066, 1333, 1600	1066, 1333, 1600, 1866	1066, 1333, 1600	1066, 1333, 1600
QRx4	8GB	16GB	32GB	800, 1333	1066, 1333	800, 1333	1066, 1333	800, 1333	800, 1333
QRx8	4GB	8GB	16GB	800, 1333	1066, 1333	800, 1333	1066, 1333	800, 1333	800, 1333

Note: For detailed information on memory support and updates, please refer to the SMC Recommended Memory List posted on our website at <http://www.supermicro.com/support/resources/mem.cfm>.

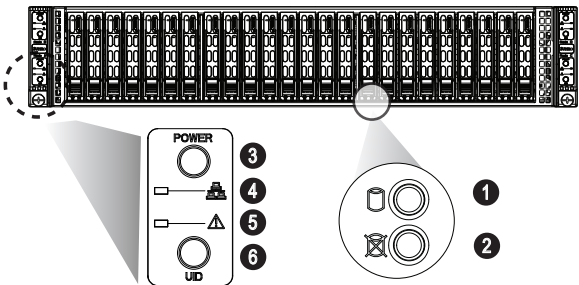
Installing and Removing Hard Drives



Motherboard Drawer Locations in the Chassis

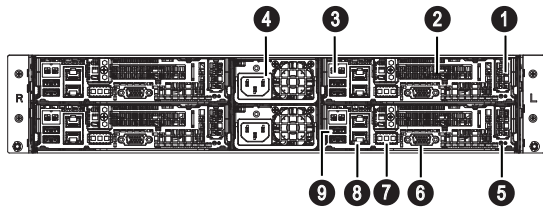
Motherboard B Controls HDDs B1 to B6	Motherboard D Controls HDDs D1 to D6
Motherboard A Controls HDDs A1 to A6	Motherboard C Controls HDDs C1 to C6

Front view & Interface



No.	Description
1	Hard Drive Signal
2	Hard Drive Fail
3	Power Button
4	LAN LED
5	Alert
6	UID Button

Rear View

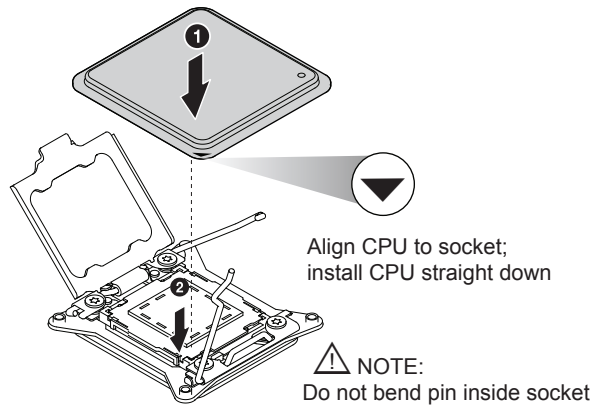


No.	Description
1	0 Slot
2	Low-Profile PCI-E Slot
3	IPMI LAN Port
4	Power Supply Module
5	UID Button
6	VGA Connector
7	InfiniBand Port (For 2027PR-HTFR only)
8	G_LAN/10G_LAN (For 2027PR-HTTR only)
9	USB Ports

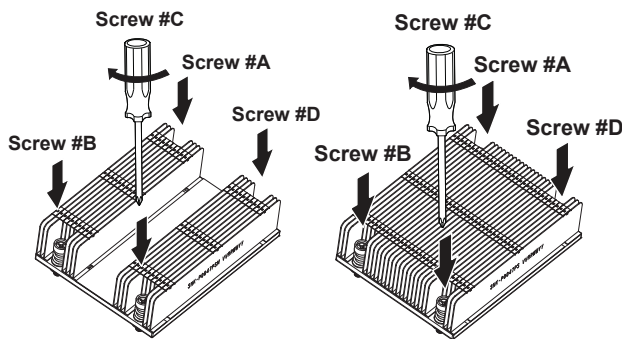
Beep Codes

BIOS Beep Codes		
Beep Code/LED	Message	Description
1 beep	Refresh	Circuits have been reset. (Ready to power up)
5 short beeps + 1 long beep	Memory Error	No memory detected
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
BIOS Beep Codes		
1 continuous beep	System Overheat	System Overheat

CPU Installation



Heatsink Installation



SNK-P0047PSM for CPU2

SNK-P0047PS for CPU1

- Place heatsink on top of installed CPU
- Line up the four screws to socket
- Push down heatsink and screw down as shown (cross pattern, in order: A, C, B, D)
- NOTE: Only use 6-8 lb/f of torque; otherwise, hand-tighten each screw, to avoid damaging the system

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>

