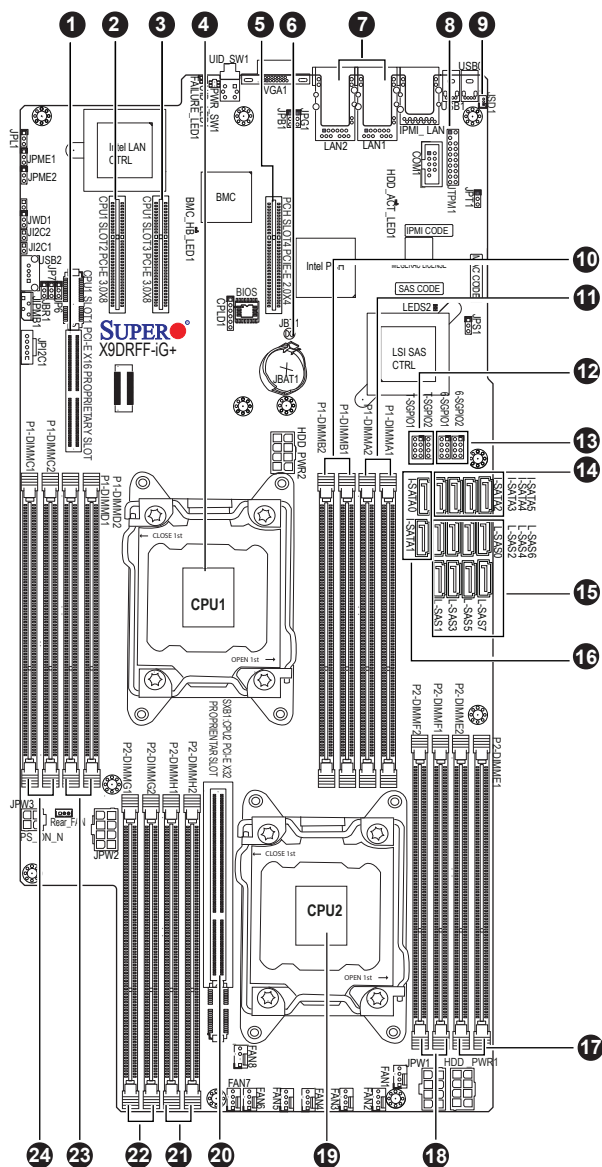


SUPERMICR® SuperServer F647G2-FT+/FTPT+/F73+/F73PT+ Quick Reference Guide

Board Layout



No.	Description	No.	Description
1	CPU1 Slot1 PCI-E 3.0 x16 Proprietary Slot	13	6-SGPIO 1/2: LSI SAS SGPIO
2	CPU1 Slot2 PCI-E 3.0 x8	14	I-SATA2~5: Internal SATA 2.0 Ports
3	CPU1 Slot3 PCI-E 3.0 x8	15	L-SAS 0~7: SAS 2.0 Connectors 0~7
4	CPU1 Socket	16	I-SATA0~1: Internal SATA 3.0 Ports
5	PCH Slot4 PCI-E 2.0 x4	17	P2-DIMME1 / P2-DIMME2
6	JBT1: CMOS Clear	18	P2-DIMMF1 / P2-DIMMF2
7	G-bit LAN ports 1/2 (X9DRFF-7G+) 10G-bit LAN Ports 1/2 (X9DRFF-7TG+)	19	CPU2 Socket
8	JTPM1: Trusted Platform Module Header	20	SXB1 CPU2 PCI-E 3.0 x32
9	JSD1: SATA Device Power Connector	21	P2-DIMMH1 / P2-DIMMH2
10	P1-DIMMB1 / P1-DIMMB2	22	P2-DIMMG1 / P2-DIMMG2
11	P1-DIMMA1 / P1-DIMMA2	23	P1-DIMMD1 / P1-DIMMD2
12	T-SGPIO 1/2: Intel SATA SGPIO	24	P1-DIMMC1 / P1-DIMMC2

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	P1-DIMMC2	P1-DIMMD2
CPU 2	P2-DIMME1	P2-DIMMF1	P2-DIMMG1	P2-DIMMH1	P2-DIMME2	P2-DIMMF2	P2-DIMMG2	P2-DIMMH2

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 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 & 10~16 DIMMs	CPU1 + CPU2 & P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1, P2-DIMME1/P2-DIMMF1/P2-DIMMG1/P2-DIMMH1 + Any memory pair 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

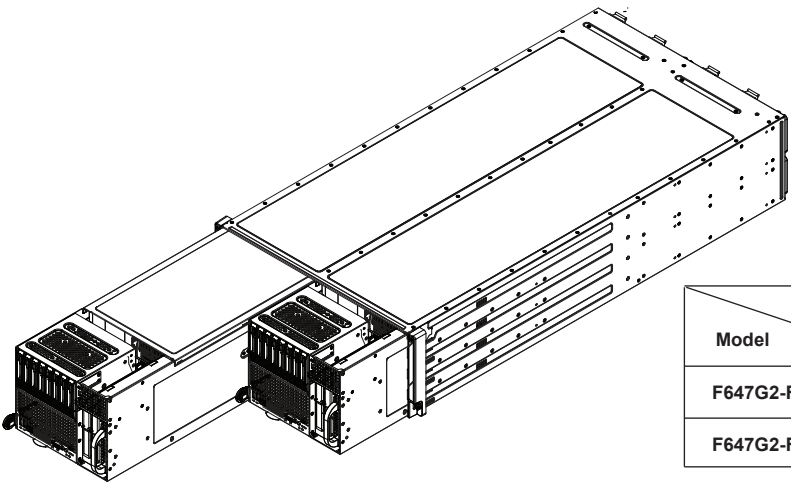
Installing RDIMM Memory

Intel E5-2600 v2 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)				
				2 Slots Per Channel				
				1DPC		2DPC		
				1.35V	1.5V	1.35V	1.5V	
SRx8	1GB	2GB	4GB	1066, 1333	1066, 1333, 1600, 1866	1066, 1333	1066, 1333, 1600	
DRx8	2GB	4GB	8GB	1066, 1333	1066, 1333, 1600, 1866	1066, 1333	1066, 1333, 1600	
SRx4	2GB	4GB	8GB	1066, 1333	1066, 1333, 1600, 1866	1066, 1333	1066, 1333, 1600	
DRx4	4GB	8GB	16GB	1066, 1333	1066, 1333, 1600, 1866	1066, 1333	1066, 1333, 1600	
QRx4	8GB	16GB	32GB	800	800, 1066	800	800	
QRx8	4GB	8GB	16GB	800	800, 1066	800	800	

Installing UDIMM (ECC/non-ECC) Memory

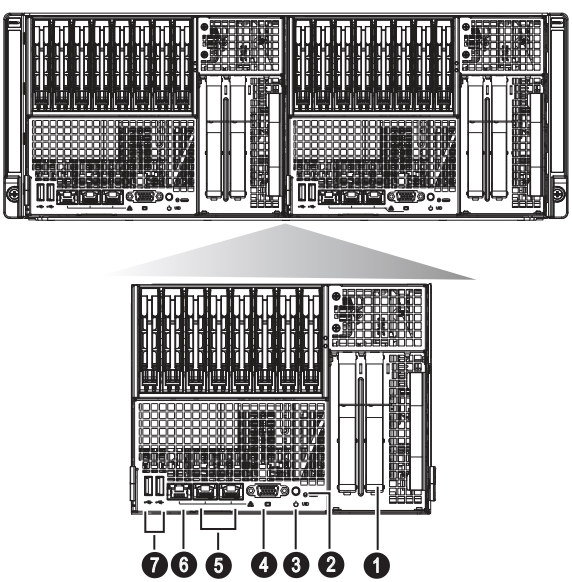
Intel E5-2600 v2 Series Processor UDIMM Memory Support							
Ranks per DIMM & Data Width	Memory Capacity Per DIMM (See the Note below)			Speed (MT/s) and Voltage Validated by Slot per Channel (SPC) and DIMM Per Channel (DPC)			
				2 Slots Per Channel			
				1DPC		2DPC	
	1.35V	1.5V	1.35V	1.5V			
SRx8 Non-ECC	1GB	2GB	4GB	NA	1066, 1333, 1600, 1866	NA	1066, 1333, 1600
DRx8 Non-ECC	2GB	4GB	8GB	NA	1066, 1333, 1600, 1866	NA	1066, 1333, 1600
SRx16 Non-ECC	512MB	1GB	2GB	NA	1066, 1333, 1600, 1866	NA	1066, 1333, 1600
SRx8 ECC	1GB	2GB	4GB	1066, 1333	1066, 1333, 1600, 1866	1066, 1333	1066, 1333, 1600
QRx8 ECC	2GB	4GB	8GB	1066, 1333	1066, 1333, 1600, 1866	1066, 1333	1066, 1333, 1600

Nodes and Corresponding Hard Drives



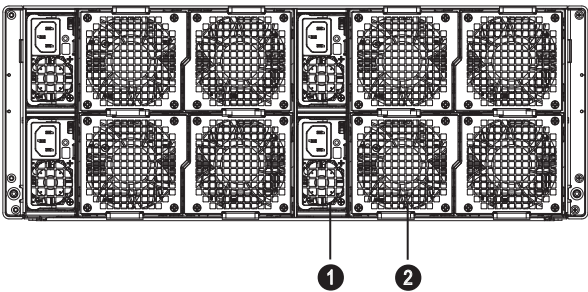
Node	Node Locations in the Chassis	
	Node 1	Node 2
F647G2-F73+/F73PT+	Controls eight front 2.5" SAS/SATA HDD, A1-A8	Controls eight front 2.5" SAS/SATA HDD, B1-B8
F647G2-FT+/FTPT+	Controls six front 2.5" SAS/SATA HDD, A1-A6	Controls six front 2.5" SAS/SATA HDD, B1-B6

Front View & Interface



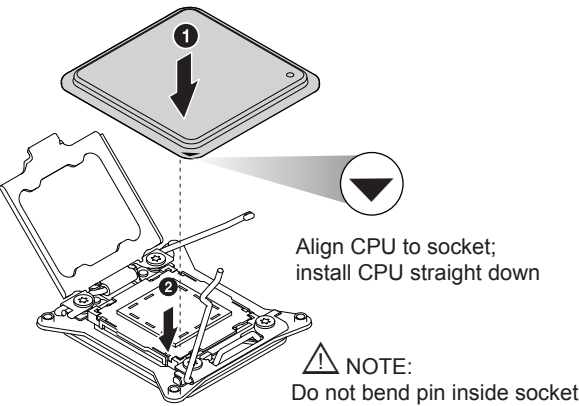
No.	Description
1	Low-Profile PCIe Expansion Slot
2	UID Button
3	Power Button
4	VGA Port
5	GbE LAN1/LAN2 Ports
6	Dedicated LAN for IPMI
7	USB 0/1 Ports

Rear View

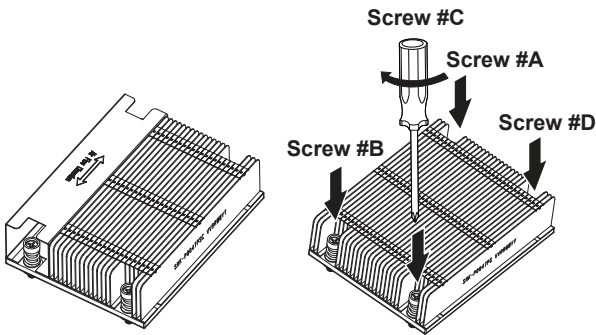


No.	Description
1	Power Supply Module
2	Rear Fan

CPU Installation



Heatsink Installation



SNK-P0047PSC for CPU1 SNK-P0047PS for CPU2

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>

