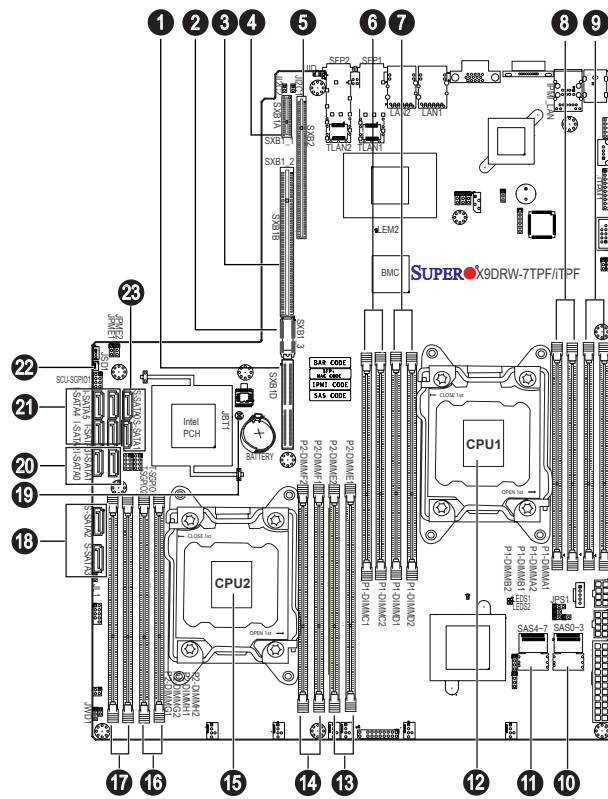


## Board Layout



No.	Description
1	SXB1D: SMC-Proprietary WIO_L (Left) Riser Card (x48) slot
2	SXB1C : SMC-Proprietary WIO_L (Left) Riser Card (x48) slot
3	SXB1B: SMC-Proprietary WIO_L (Left) Riser Card (x48) slot
4	SXB1A: SMC-Proprietary WIO_L (Left) Riser Card (x48) slot
5	SXB2: SMC-Proprietary WIO_R (Right) Riser Card (x16) slot
6	P2-DIMMC1(Blue)/P2-DIMMC2 slot
7	P2-DIMMD1(Blue)/P2-DIMMD2 slot
8	P2-DIMMB1(Blue)/P2-DIMMB2 slot
9	P2-DIMMA1(Blue)/P2-DIMMA2 slot
10	SAS0~3: LSI 2208 SAS2 HW RAID Connectors 0~3
11	SAS4~7: LSI 2208 SAS2 HW RAID Connectors 4~7
12	CPU1 (Install CPU1 first)
13	P2-DIMME1(Blue)/P2-DIMME2 slot
14	P2-DIMMF1(Blue)/P2-DIMMF2 slot
15	CPU2
16	P2-DIMMH1(Blue)/P2-DIMMH2 slot
17	P2-DIMMG1(Blue)/P2-DIMMG2 slot
18	S-SATA2~3: Intel SATA 2.0 Connectors 2~3 (from Intel SCU)
19	JBT1 = CMOS Clear
20	I-SATA0~1: Intel SATA 3.0 Connectors 0/1 (from Intel AHCI)
21	I-SATA2~5: Intel SATA 2.0 Connectors 2~5 (from Intel AHCI)
22	JSD1 = SATA DOM Power
23	S-SATA0~1: Intel SATA 2.0 Connectors 0~1 (from Intel SCU)

## 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 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 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		2DPC		1DPC		2DPC	
		1.35V	1.5V	1.35V	1.5V	1.35V	1.5V	1.35V	1.5V
SRx8 Non-ECC	1GB 2GB 4GB	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333	1066, 1333	1066, 1333	1066, 1333	1066, 1333
DRx8 Non-ECC	2GB 4GB 8GB	NA	1066, 1333, 1600	1066, 1333	1066, 1333	1066, 1333	1066, 1333	1066, 1333	1066, 1333
SRx16 Non-ECC	512MB 1GB 2GB	NA	1066, 1333, 1600	1066, 1333	1066, 1333	1066, 1333	1066, 1333	1066, 1333	1066, 1333
SRx8 ECC	1GB 2GB 4GB	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333	1066, 1333	1066, 1333	1066, 1333	1066, 1333
DRx8 ECC	2GB 4GB 8GB	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333	1066, 1333	1066, 1333	1066, 1333	1066, 1333

### Installing RDIMM (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		2DPC		1DPC		2DPC	
		1.35V	1.5V	1.35V	1.5V	1.35V	1.5V	1.35V	1.5V
SRx8	1GB 2GB 4GB	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600
DRx8	2GB 4GB 8GB	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600
SRx4	2GB 4GB 8GB	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600
DRx4	4GB 8GB 16GB	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600	1066, 1333	1066, 1333, 1600
QRx4	8GB 16GB 32GB	800	1066	800	1066	800	1066	800	1066
QRx8	4GB 8GB 16GB	800	1066	800	1066	800	1066	800	1066

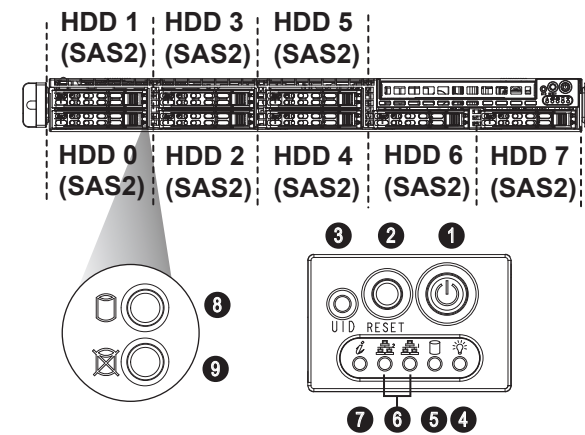
### Installing LRDIMM (ECC) Memory

Intel E5-2600 Series Processor LRDIMM 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		2DPC		1DPC		2DPC	
		1.35V	1.5V	1.35V	1.5V	1.35V	1.5V	1.35V	1.5V
QRx4 (DDP)	16GB 32GB	1066, 1333	1066, 1333	1066	1066, 1333	1066	1066, 1333	1066	1066, 1333
QRx8 (P)	8GB 16GB	1066, 1333	1066, 1333	1066	1066, 1333	1066	1066, 1333	1066	1066, 1333

## Beep Codes

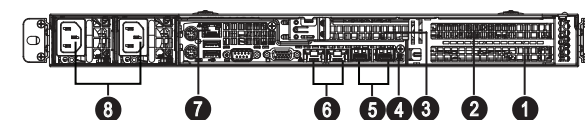
BIOS Beep Codes		
Beep Code/LED	Message	Description
1 beep	Refresh	Circuits have been reset. (Ready to power up)
5 short beeps + 1 long beep	Memory	No memory detected
5 long beeps	Display memory read/write status	Video adapter missing or with faulty memory
1 beep per device	Refresh	1 beep for each USB device
OH LED On	System	System overheat

## Front view & Interface



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

## Rear View

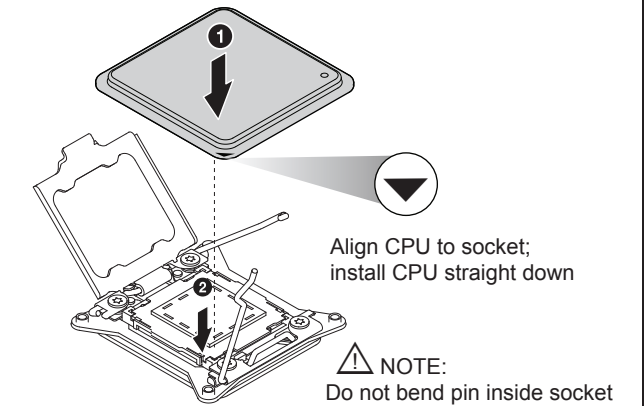


No.	Description
1	PCI-E 3.0 x16 Expansion Slot (FH, 6.6"L)
2	PCI-E 3.0 x16 Expansion Slot (FH, 10"L)
3	PCI-E 3.0 x8 Expansion Slot (LP, 6.6"L)
4	UID Button (Unit Identifier Button)
5	LAN3 & LAN4 (10GbE SFP+ Port)
6	LAN1 & LAN2 (1GbE)
7	Dedicated LAN for IPMI
8	Redundant Power Supply Modules

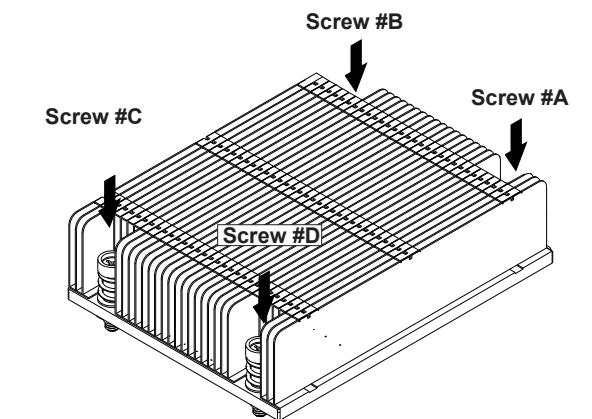
## Beep Codes

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 Con-Out devices	Con-In includes USB or PS/2 keyboard, PCI or serial console redirection, IPMI KVM or SOL. Con-Out includes video controller, PCI or serial console redirection, IPMI SOL.

## CPU Installation



## Heatsink Installation



- 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](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>

