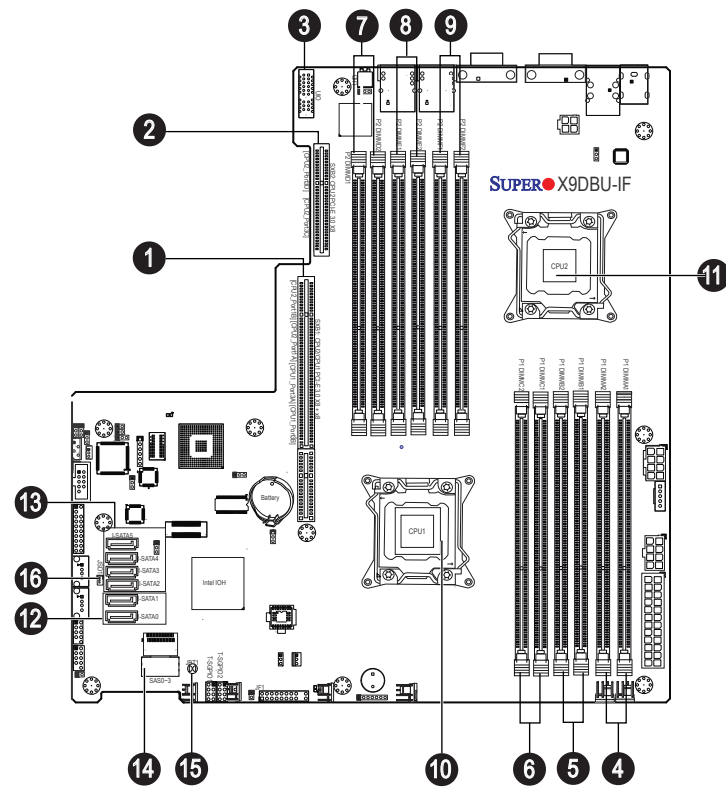


# SUPERMICR<sup>®</sup> SuperServer 1027B-URF Quick Reference Guide

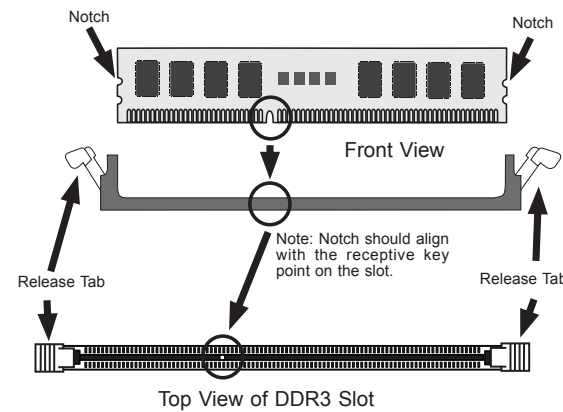
## Board Layout



Note: Install CPU1 first

No.	Description
1	SXB1 CPU1/CPU2 PCI-E 3.0 x8 + x8 slot
2	SXB2 CPU2 PCI-E 3.0 x8 Slot SXB3 CPU1 PCI-E 3.0 x8 Slot
3	UIO SMC-Proprietary Universal I/O Slot
4	P1-DIMMA1 (Blue)/P1-DIMMA2 slot
5	P1-DIMMB1 (Blue)/P1-DIMMB2 slot
6	P1-DIMMC1 (Blue)/P1-DIMMC2 slot
7	P1-DIMMD1 (Blue)/P1-DIMMD2 slot
8	P1-DIMME1 (Blue)/P1-DIMME2 slot
9	P1-DIMMF1 (Blue)/P1-DIMMF2 slot
10	CPU1 (Install CPU1 first)
11	CPU2
12	I-SATA 0/1 are SATA 3.0 ports
13	I-SATA 2~5 are SATA 2.0 ports
14	Serial-Link S-SATA/SAS 0~3
15	JBT1 = CMOS Reset
16	JDS1 = SATA DOM Power

## MEMORY



Processors and their Corresponding Memory Modules						
CPU#	Corresponding DIMM Modules					
CPU 1	P1-DIMMA1	P1-DIMMA2	P1-DIMMB1	P1-DIMMB2	P1-DIMMC1	P1-DIMMC2
CPU 2	P2-DIMMD1	P2-DIMMD2	P2-DIMME1	P2-DIMME2	P2-DIMMF1	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-DIMMA2/P1-DIMMB2
1 CPU & 6 DIMMs	CPU1 & P1-DIMMA1/P1-DIMMB1, P1-DIMMA2/P1-DIMMB2, P1-DIMMC1/P1-DIMMC2
2 CPUs & 4 DIMMs	CPU1 + CPU2 & P1-DIMMA1/P1-DIMMB1, P2-DIMMD1/P2-DIMME1
2 CPUs & 6 DIMMs	CPU1 + CPU2 & P1-DIMMA1/P1-DIMMB1/P1-DIMMC1, P2-DIMMD1/P2-DIMME1/P2-DIMMF1
2 CPUs & 8 DIMMs	CPU1 + CPU2 & P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMA2, P2-DIMMD1/P2-DIMME1/P2-DIMMF1/P2-DIMMD2
2 CPUs & 10 DIMMs	CPU1 + CPU2 & P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMA2/P1-DIMMB2, P2-DIMMD1/P2-DIMME1/P2-DIMMF1/P2-DIMMD2/P2-DIMME2
2 CPUs & 12 DIMMs	CPU1 + CPU2 & P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMA2/P1-DIMMB2/P1-DIMMC2, P2-DIMMD1/P2-DIMME1/P2-DIMMF1/P2-DIMMD2/P2-DIMME2/P2-DIMMF2

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

### Installing RDIMM (ECC) Memory

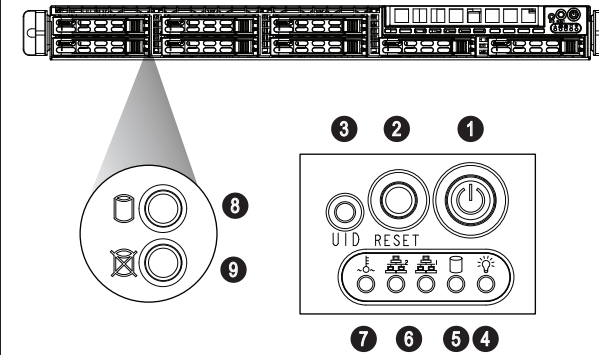
Intel E5-2600 Series Processor RDIMM Memory Support						
Ranks per DIMM & Data Width	Memory Capacity Per DIMM (See the Note below)	Speed (MT/s) and Voltage Validated by Slot per Channel (SPC) and DIMM Per Channel (DPC)				
		2 Slots Per Channel				
		1DPC		2DPC		
		1.35V	1.5V	1.35V	1.5V	
SRx8	1GB, 2GB,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

### Populating 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				
		1DPC		2 Slots Per Channel		
		1.35V	1.5V	1.35V	1.5V	
QRx4 (DDP)	16GB, 32GB	1066, 1333	1066, 1333	1066	1066, 1333	
QRx8 (P)	2GB, 16GB	1066, 1333	1066, 1333	1066	1066, 1333	

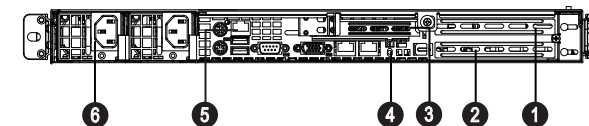
Note: For detailed information on memory support and updates, please refer to the SMC Recommended Memory List posted on our website at <http://www.supermicro.com/support/resources/mem.cfm>.

## Front View & Interface



No.	Description
1	Power Button
2	Reset Button
3	UID Button (Unit Identifier Button)
4	Power LED
5	Device Activity LED
6	LAN1 LED & LAN2 LED
7	Overheat & Fan Fail LED
8	Hard Drive Signal
9	Hard Drive Fail

## Rear View



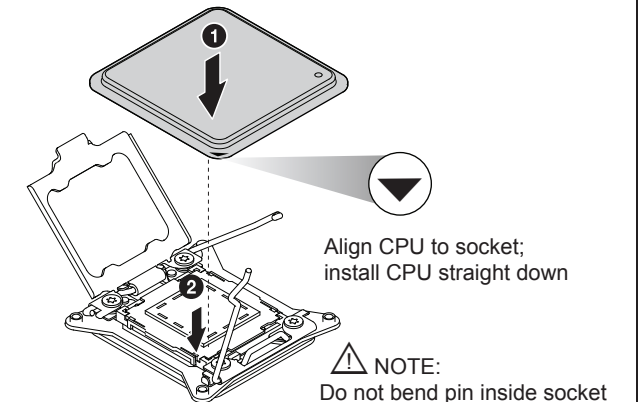
No.	Description
1	PCI-E 3.0 x8 Expansion Slot (FH, 13.5"L)
2	UIO Expansion Slot
3	Optional 2 LAN (RSC-R1UU-E8PR + AOC-PG-i2+) *
4	UID Button (Unit Identifier Button)
5	Dedicated LAN for IPMI
6	Redundant Power Supply Module

\* Can be supported only with VLP memory installed

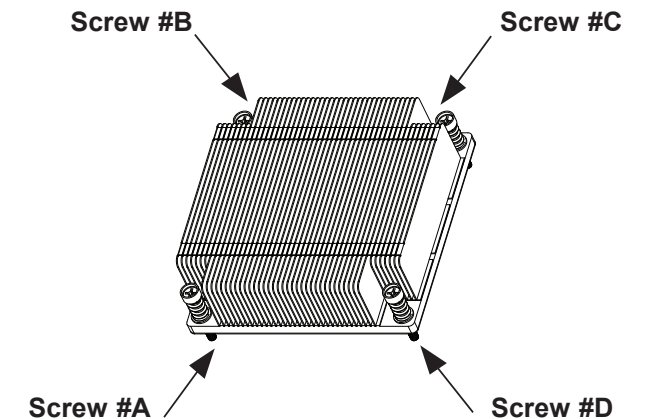
## Beep Codes

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 + 2 short beeps	Display memory read/write status	Video adapter missing or with faulty memory
1 continuous beep	System	System overheat

## 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/ft 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>

