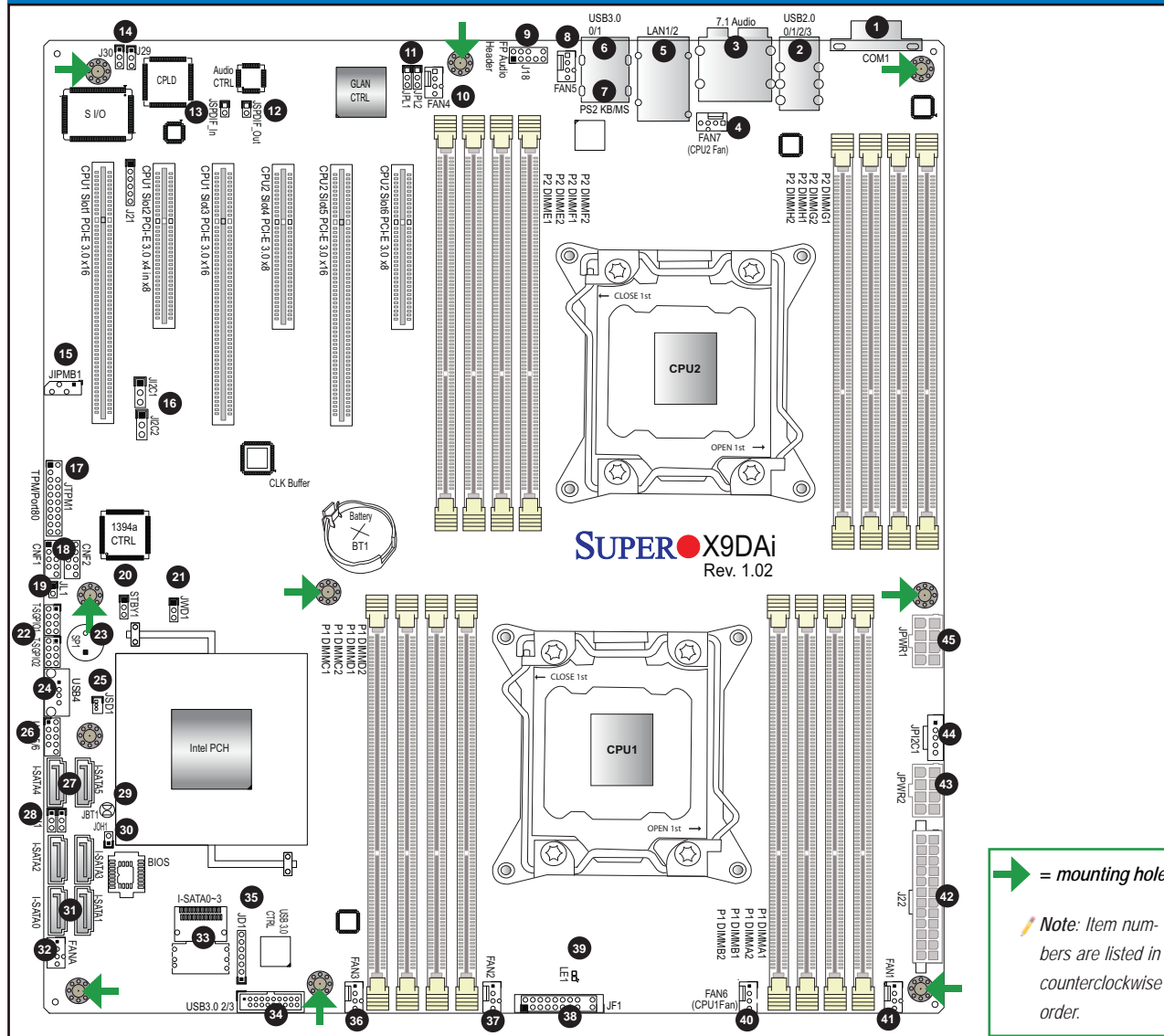


Motherboard Layout and Features



Jumpers, Connectors and LED Indicators

Jumpers

Jumper	Item #	Description	Default
J29/J30	14	SMB Enable	Pins 1-2 (Enabled)
JBT1	29	Clear CMOS	See Chpt. 2 in User Manual
J1 ² C1/J1 ² C2	16	SMBus to PCI-E Slots	Pins 2-3 (Normal)
JPI1	28	IEEE1394a Enable	Pins 1-2 (Enabled)
JPL1/2	11	GLAN1/GLAN2 Enable	Pins 1-2 (Enabled)
JWD1	21	Watch Dog	Pins 1-2 (Reset)

Connectors

Connector	Item #	Description
7.1 Audio	3	8 Channel (7.1) High-Definition Backplane Audio Connector
CNF1/CNF2	18	IEEE 1394a 1/2 Connectors
COM1	1	Back Panel COM Port1
Fan 1-4	41, 37, 36, 10	CPU/System Fan Headers
Fan 5-7, FanA	8, 40, 4, 32	CPU/System Fan Headers (Fan6/Fan7: CPU 1/2 Fans)
I-SATA 0-3	33	Intel SATA Connectors 0-3 (from the SCU)
I-SATA 0/1	31	Intel SB SATA3 Connectors 0/1 (from the AHCI)
I-SATA 2-5	27	Intel SB SATA2 Connectors 2-5 (from the AHCI)
J18	9	Audio Header
J22	42	ATX 24-Pin Power Connector
JD1	35	Speaker/Power LED Indicator
JF1	38	Front Panel Control Header
JL1	19	Chassis Intrusion
JIPMB1	15	4-pin External BMC I ² C Header (for an IPMI Card)
JOH1	30	Overheat/Fan Fail LED Indicator
JPI ² C1	44	Power Supply SMBbus I ² C Header
JPWR1/JPWR2	45, 43	12V 8-Pin Power Connectors
JSD1	25	SATA DOM (Device On Module) Power Connector
JSPDIF_In	13	SPDIF (Sony/Philips Digital Interface) In Header
JSPDIF_Out	12	SPDIF (Sony/Philips Digital Interface) Out Header
JTPM1	17	TPM (Trusted Platform Module)/Port 80 Header
(PS2) KB/Mouse	7	Keyboard/Mouse
LAN1/2	5	G-bit Ethernet Ports 1/2
SP1	23	Onboard Buzzer (Internal Speaker)
STBY1	20	Standby Power Header
T-SGPIO 1/2	22	Serial-Link General Purpose IO Headers 1/2
USB 2.0 0/1/2/3	2	Back Panel USB 2.0 Ports 0/1/2/3
USB 4, 5/6	24, 26	Front Panel Accessible USB 2.0 Connections 4, 5/6
USB 3.0 0/1	6	Back Panel USB 3.0 Ports 0/1
USB 3.0 2/3	34	Front Panel Accessible USB 3.0 Connections 2/3

LED Indicators

LED	Item #	Description	Color/State	Status
LE1	39	Standby PWR LED	Green: On	SB Power On

Memory Support

This motherboard supports up to 512 GB of 240-pin Registered (RDIMM)/Load Reduced (LRDIMM) ECC or 128 GB of Unbuffered (UDIMM) ECC/Non-ECC DDR3 800/1066/1333/1600 MHz 4-channel (per CPU) memory in 16 DIMM slots.

Note: For memory optimization, use only DIMM modules that have been validated by Supermicro. For the latest memory updates, please refer to our website at <http://www.supermicro.com/products/motherboard>.

DIMM Installation

Insert the desired number of DIMMs into the memory slots, starting with P1-DIMMA1. For memory to work properly, follow the tables below for memory population order. Refer to the motherboard layout (at left) for the location of the DIMM slots.

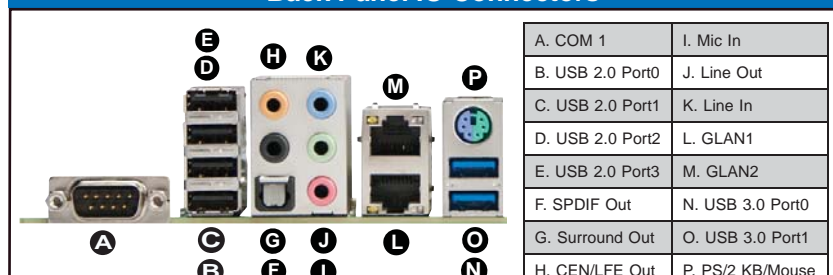
Processors and their Corresponding Memory Modules

CPU#	Corresponding DIMM Modules							
	P1-DIMMA1	P1-DIMMB1	P1-DIMMC1	P1-DIMMD1	P1-DIMMA2	P1-DIMMB2	P1-DIMMC2	P1-DIMMD2
CPU 1								
CPU 2								

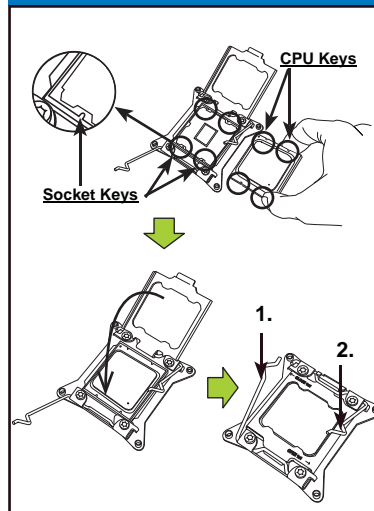
Processor and Memory Module Population for Optimal Performance

Number of CPUs+DIMMs	CPU and Memory Population Configuration Table (For memory to work properly, please follow the instructions below.)	
	CPU	Memory
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 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

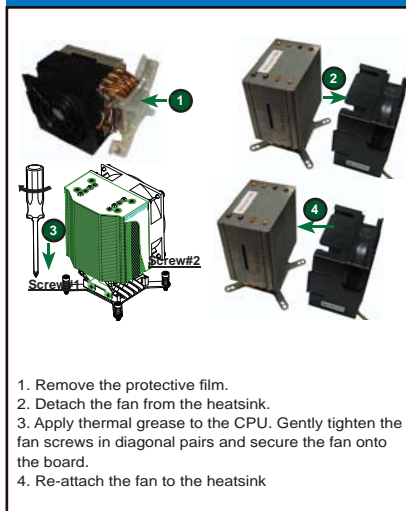
Back Panel IO Connectors



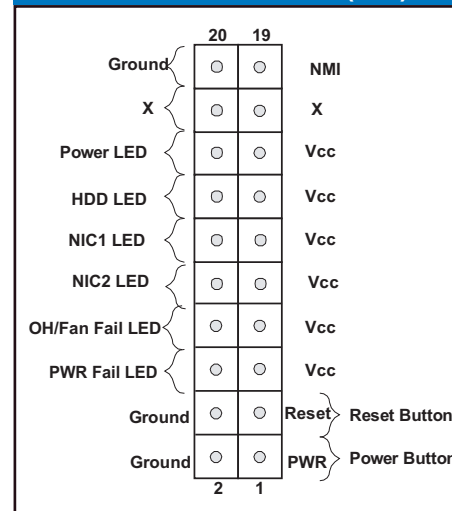
CPU Installation



Heatsink Installation



Front Panel Control (JF1)



Note: Graphics shown in this quick reference guide are for illustration only. Your components may or may not look exactly the same as drawings shown in this guide.

Note: Refer to Chapter 2 of the User Manual for detailed information on jumpers, connectors, and LED indicators.

Note: Refer to Chapter 2 of the User Manual for detailed information on memory support and CPU/motherboard installation instructions.