

### CONTACT INFORMATION

- www.supermicro.com (Email: support@supermicro.com)
- Manuals: <http://www.supermicro.com/support/manuals>
- Drivers & Utilities: <http://www.supermicro.com/wftp>
- Safety: [http://www.supermicro.com/about/policies/safety\\_information.cfm](http://www.supermicro.com/about/policies/safety_information.cfm)

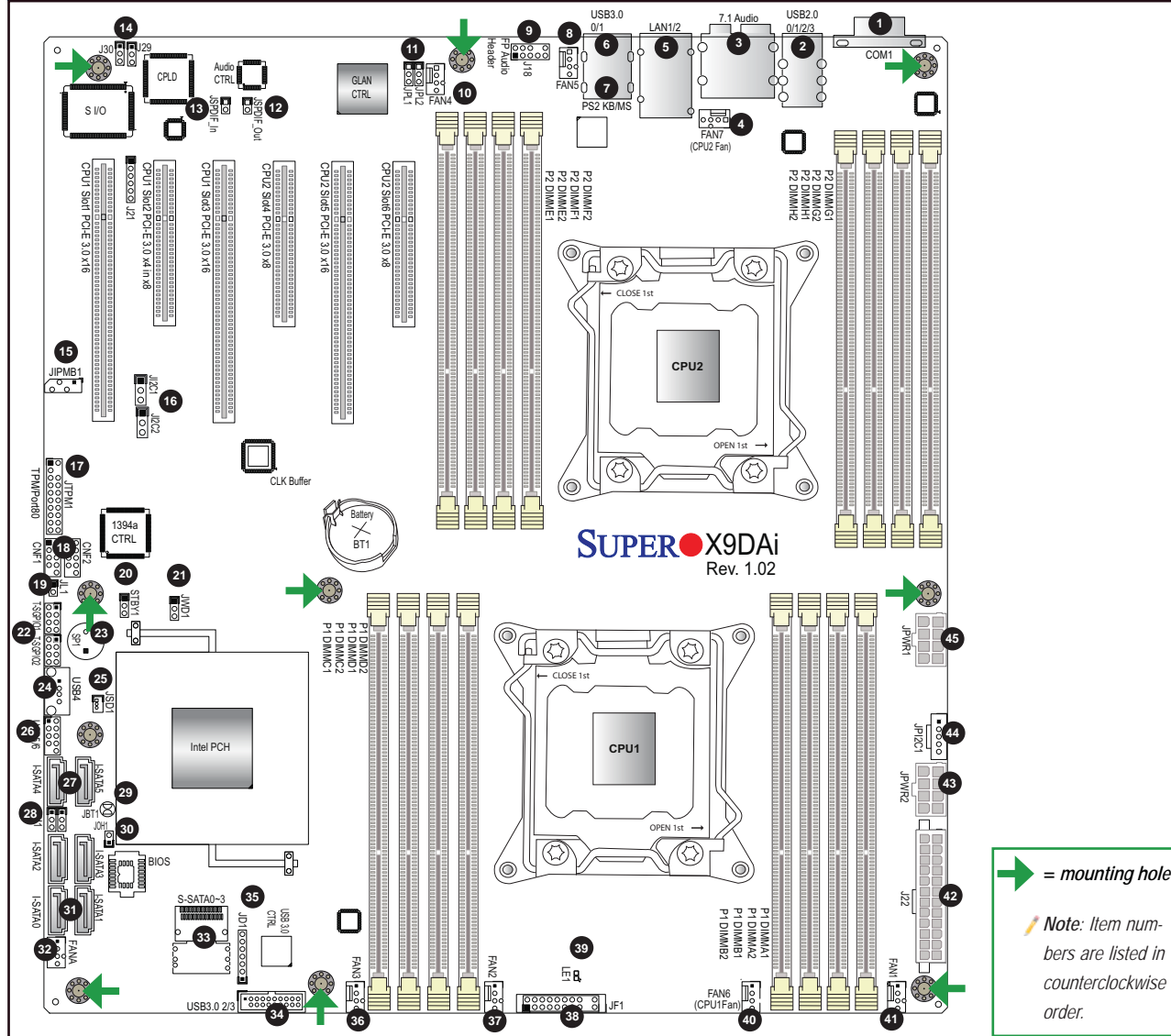
### PACKAGE CONTENTS (Applies to single-pack only)

- One (1) Supermicro Motherboard
- Two (2) Serial ATA Cables
- One (1) I-Pass to Serial ATA Cable
- One (1) IEEE 1394a Internal to External Cable
- One (1) I/O Shield



WARNING: This product can expose you to chemicals including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## 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 <sup>2</sup> C1/J1 <sup>2</sup> 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 0/1	31	Intel SB SATA3 Connectors 0/1 (from the AHCI)
I-SATA 2-5	27	Intel SB SATA2 Connectors 2-5 (from the AHCI)
S-SATA 0-3	33	S-SATA Connectors 0-3 (supported by the SCU)
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 <sup>2</sup> C Header (for an IPMI Card)
JOH1	30	Overheat/Fan Fail LED Indicator
JPI <sup>2</sup> C1	44	Power Supply SMBbus I <sup>2</sup> 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.

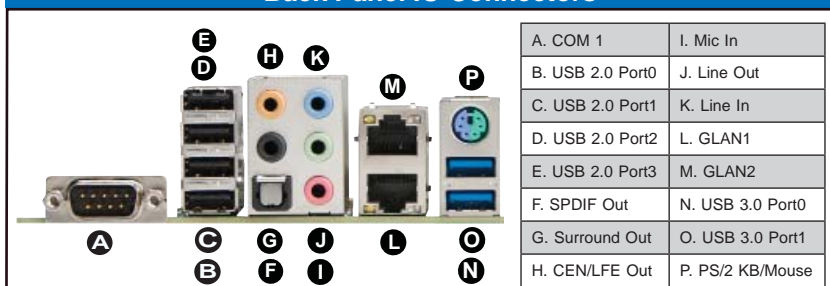
### Processors and their Corresponding Memory Modules

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

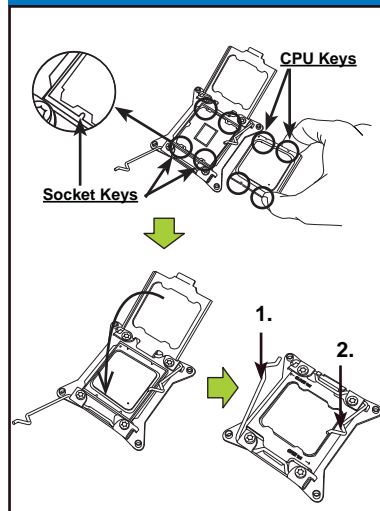
### Processor and Memory Module Population for Optimal Performance

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

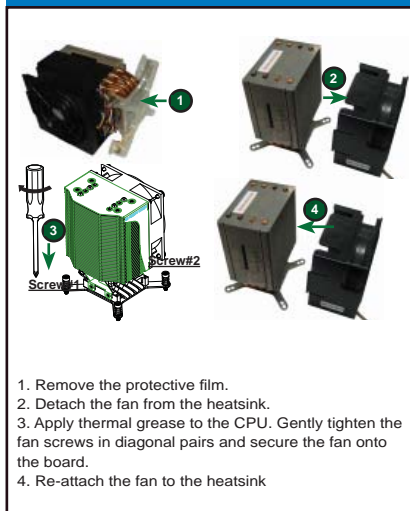
### Back Panel IO Connectors



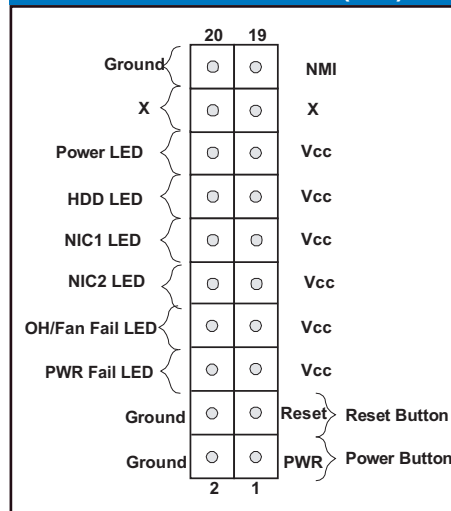
### CPU Installation



### 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.