

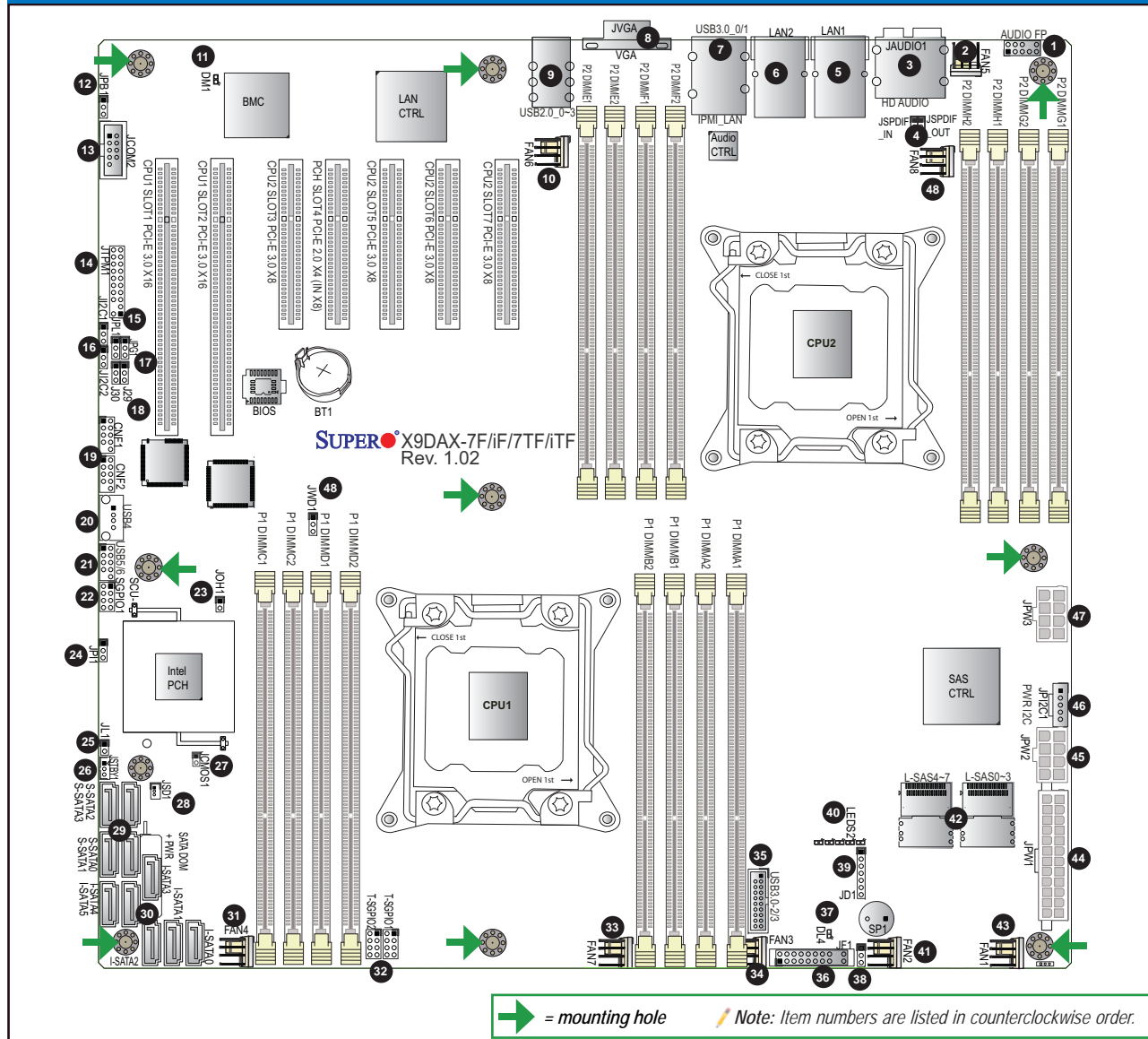
**CONTACT INFORMATION**

- www.supermicro.com (Email: support@supermicro.com)
- Manuals: http://www.supermicro.com/support/manuals
- Drivers & Utilities: ftp://ftp.supermicro.com
- Safety: http://www.supermicro.com/about/policies/safety\_information.cfm

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

- One (1) Supermicro Motherboard
- Six (6) Serial ATA Cables (X9DAX iF/iTF)
- Four (4) Serial ATA Cables (X9DAX 7F/7TF)
- One (1) I/O Shield
- Two (2) I-Pass to Serial ATA Cables (X9DAX 7F/7TF)
- One (1) IEEE 1394a Internal to External Cable

**Motherboard Layout and Features**



**Jumpers, Connectors and LED Indicators**

**Jumpers**

Jumper	Item #	Description	Default
J29/J30	18	SMB Enable	Pins 1-2 (Enabled)
JCMOS1	27	Clear CMOS	Open (Normal)
J1 <sup>2</sup> C1/J1 <sup>2</sup> C2	16	SMBus to PCI-E Slots	Pins 2-3 (Normal)
JPB1 / JPG1	12, 17	BMC Enable / VGA Enable	Pins 1-2 (Enabled)
JPI1	24	IEEE1394a Enable	Pins 1-2 (Enabled)
JPL1 (X9DAX-iF/7F)	15	Gigabit Ethernet LAN Enable	Pins 1-2 (Enabled)
JPL1 (X9DAX-iTF/7TF)	15	10G Ethernet LAN Enable	Pins 1-2 (Enabled)
JPS1 (X9DAX-7F-iTF)	38	SAS Enable	Pins 1-2 (Enabled)
JWD1	48	Watch Dog	Pins 1-2 (Reset)

**Connectors**

Connector	Item #	Description
(J) Audio	3	8 Channel (7.1) High-Definition Backplane Audio Connector
(FP) Audio	1	Front Panel Audio Header
CNF1/CNF2	19	IEEE 1394a 1/2 Connectors
(J) COM2	13	Front Panel Accessible COM Port Header
FAN1-4	43, 41, 34, 31	CPU/System Fan Headers
FAN5-8	2, 10, 33, 48	CPU/System Fan Headers (Fan7/Fan8: CPU 1/2 Fans)
JD1	39	Speaker/Power LED Indicator
JF1	36	Front Panel Control Header
JL1	25	Chassis Intrusion
JOH1	23	Overheat/Fan Fail LED Indicator
JPI <sup>2</sup> C1	46	Power Supply SMBus I <sup>2</sup> C Header
JPW1	44	24-Pin Power Connectors
JPW2/JPW3	45, 47	12V 8-Pin Power Connectors
JSD1	28	SATA DOM (Device On Module) Power Connector
JSPDIF_In / Out	4	SPDIF (Sony Philips Digital Interface) In / Out Header
JSTBY1	26	Standby Power Header
JTPM1	14	TPM (Trusted Platform Module)/Port 80 Header
JVGA	8	VGA Port
LAN1/2	5, 6	GbE LAN Ports 1/2 (-iF/7F Only), 10G LAN Ports 1/2 (-iTF/7TF Only)
(L-)SAS 0-3, 4-7	42	SAS 2.0 Connections from LSI SAS 2208 Controller (-7F/-7TF Only)
(I-)SATA0-5	30	Intel SB SATA Connectors (0/1: SATA 3.0 Ports, 2-5: SATA 2.0 ports)
(S-)SATA0-3	29	SATA 2.0 Connectors 0-3 from SCU (Storage Control Unit)
SCU-SGPIO 1	22	Serial-Link General Purpose IO -Hdr for S-SATA Connections 0-3
T-SGPIO 1/2	32	Serial-Link General Purpose IO Hdrs for I-SATA Connections 0-3, 4/5
USB 2.0 #0-3	9	Back Panel USB 2.0 Ports 0/1/2/3
USB 2.0 #4	20	Front-Panel Accessible Type A USB 2.0 Header
USB 2.0 #5/6	21	Front-Panel Accessible USB 2.0 Connections 5/6
USB 3.0 #0/1	7	Back Panel USB 3.0 Ports 0/1
USB 3.0 #2/3	35	Front-Panel Accessible USB 3.0 Connections 2/3

**LED Indicators**

LED	Item #	Description	Color/State	Status
DL4	37	Standby PWR LED	Green: On	Standby Power On
DM1	11	BMC LED	Green	BMC Active
LEDS2	40	SAS LED	On	BMC Active

**Memory Support**

This motherboard supports up to 512 GB of 240-pin Registered (RDIMM)/Load Reduced (LRDIMM) ECC or up to 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.

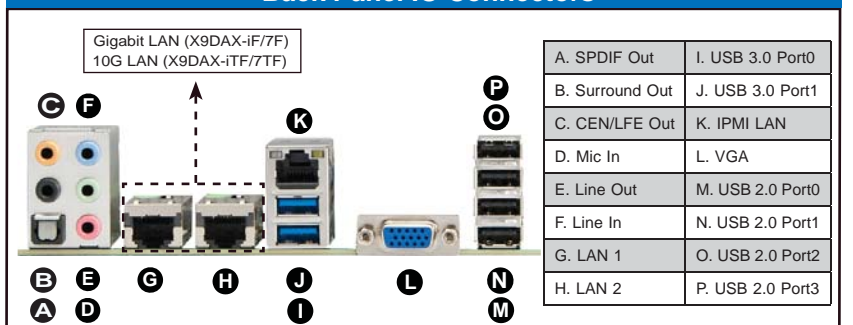
**Processors and their Corresponding Memory Modules**

CPU#	Corresponding DIMM Modules							
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

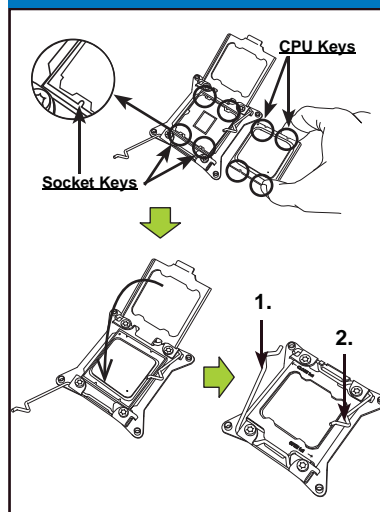
**Processor and Memory Module Population for Optimal Performance**

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

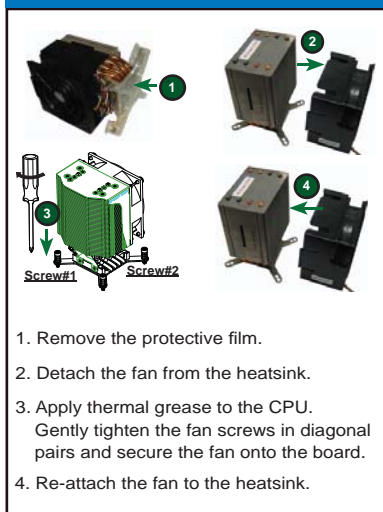
**Back Panel IO Connectors**



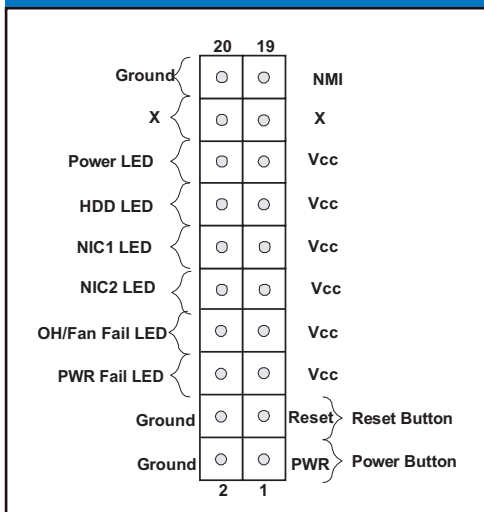
**CPU Installation**



**Heatsink Installation**



**JF1 Header Pins**



**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.