

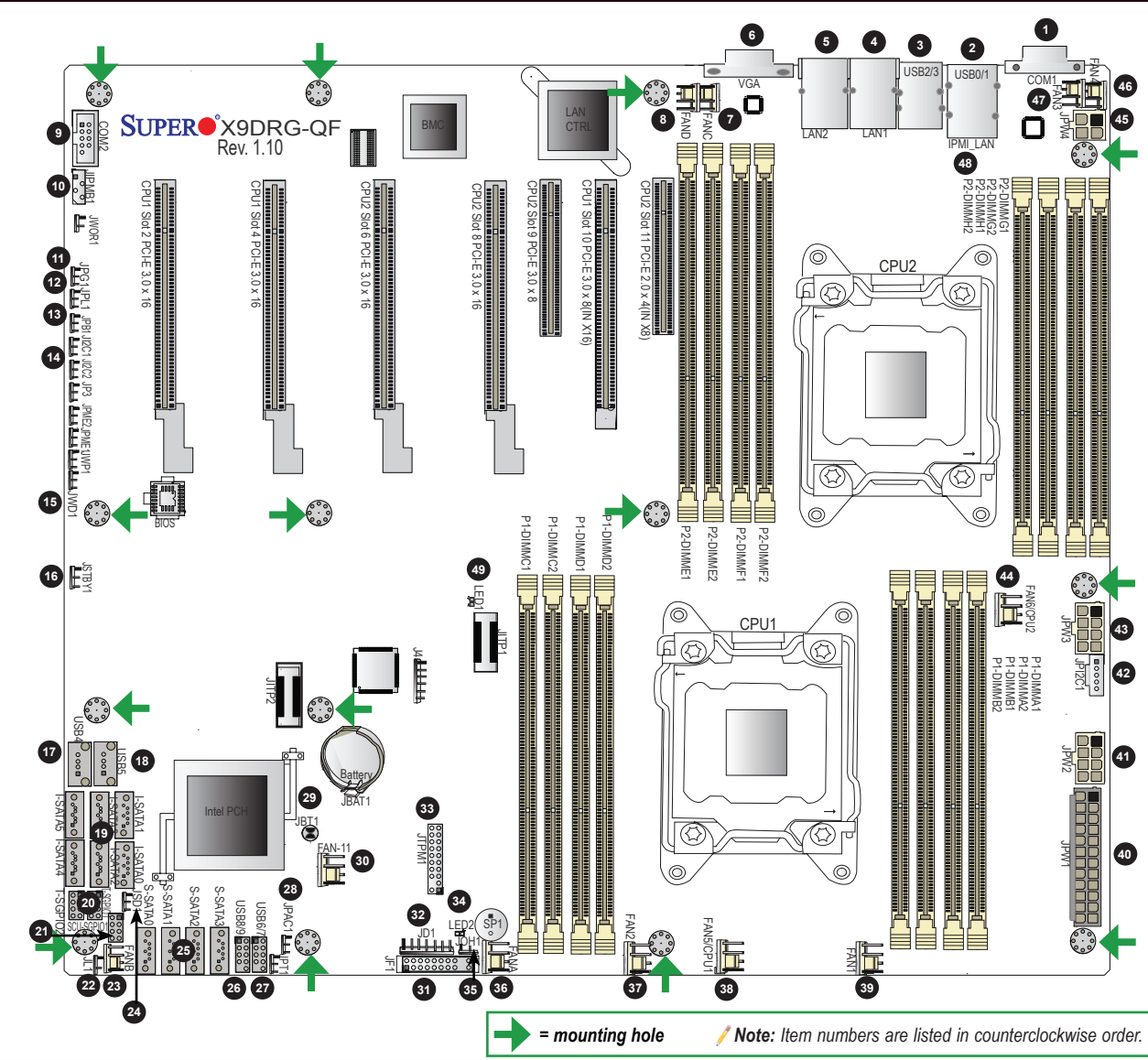
CONTACT INFORMATION

- 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 bulk-pack only)

- One (1) Supermicro Motherboard
- Two (2) Serial ATA Cables
- One (1) I/O Shield Bracket

Motherboard Layout and Features



Jumpers, Connectors and LED Indicators

Jumpers

Jumper	Item #	Description	Default
JBT1	29	Clear CMOS	Open: Normal (Default) Short: Clear CMOS
J1°C1/J1°C2	14	PCI-Exp Slots to SMB Connections	Pins 1-2 (Enabled)
JPAC1	28	Audio Enable	Pins 1-2 (Enabled)
JPB1	13	BMC Enabled	Pins 1-2 (Enabled)
JPG1	11	VGA Enabled	Pins 1-2 (Enabled)
JPL1	12	GLAN1/GLAN2 Enable	Pins 1-2 (Enabled)
JWD1	15	Watch Dog Timer Enable	Pins 1-2 (Reset)

Connectors

Connector	Item #	Description
COM1, COM2	1, 9	Back Panel COM Port1, Front Accessible COM2 Header
Fan1~Fan4	39, 37, 47, 46	System Fan Headers
Fan5, Fan6, Fan11	38, 44, 30	CPU1 Fan (Fan5), CPU2 Fan (Fan6), System Fan (Fan11)
FanA~FanD	36, 23, 7, 8	System Fan Headers
(IPMI) LAN	48	IPMI Dedicated LAN
I-SATA 0~5	19	Two SATA 3 Connectors (0~1), Four SATA 2 Connectors (2~5)
JD1	32	Power LED/Speaker Header
JF1	31	Front Panel Control Header
JIPMB1	10	4-pin External BMC I²C Header (for an IPMI Card)
JL1	22	Chassis Intrusion
JOH1	35	Overheat LED Indicator
JPI²C1	42	Power System Management Bus (SMB) Header
JPW1	40	24-Pin ATX Main Power Connector
JPW2/JPW3	41, 43	12V 8-Pin Power Connectors
JPW4	45	4-Pin Power Connector
JSD1	24	SATA DOM (Device-On-Module) Power Header
JSTBY1	16	Standby Power Header
JTPM1	33	TPM (Trusted Platform Module)/Port 80
LAN1, LAN2	4, 5	G-bit Ethernet Ports 1/2
S-SATA 0~3	25	SCU SATA 2 Connectors 0~3
S-SGPIO1	21	SCU General Purpose I/O Header to SAS Connections
T-SGPIO 1/2	20	Serial_Link General Purpose I/O Headers for SATA Connections
USB 0/1, 2/3	2, 3	Back Panel USB 0/1, 2/3
USB4, USB5	17, 18	Front Accessible Type A USB Embedded Drive Connectors 4/5
USB 6/7, 8/9	27, 26	Front Accessible USB Connections 6/7, 8/9
VGA	6	VGA/Video Connector

LED Indicators

LED	Item #	Description	Color/State	Status
LED1	49	BMC Heartbeat LED	Green	BMC Normal
LED2	34	Standby PWR LED	Green: On	Standby Power On

Memory Support

This motherboard supports up to 1 TB of Load Reduced (LRDIMM), 512 GB of Registered (RDIMM) or 128 GB of Unbuffered (UDIMM) ECC/Non-ECC DDR3 800/1066/1333/1600/1866 MHz 240-pin 4-channel memory modules 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.

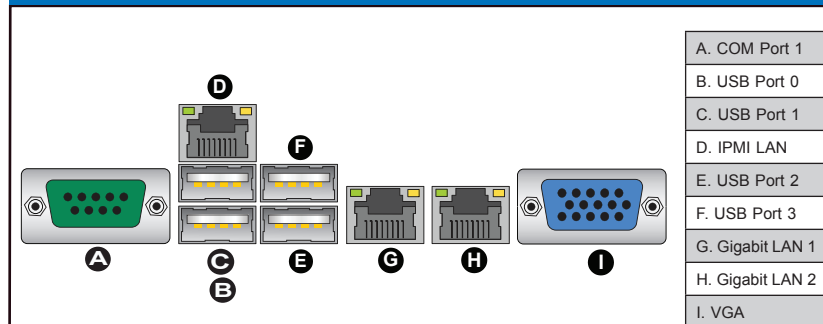
Processors and their Corresponding Memory Modules

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

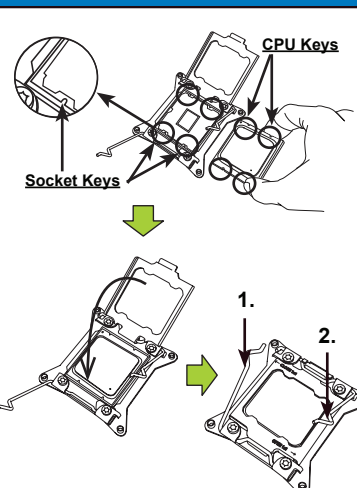
Processor and Memory Module Population for Optimal Performance

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

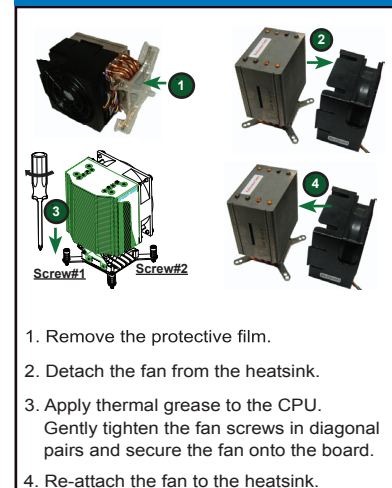
Back Panel IO Connectors



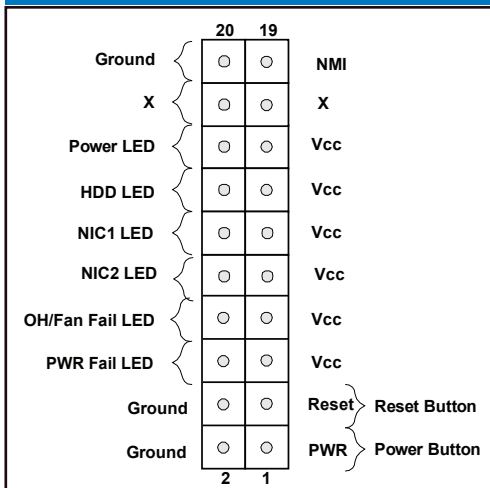
CPU Installation



Heatsink Installation



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.