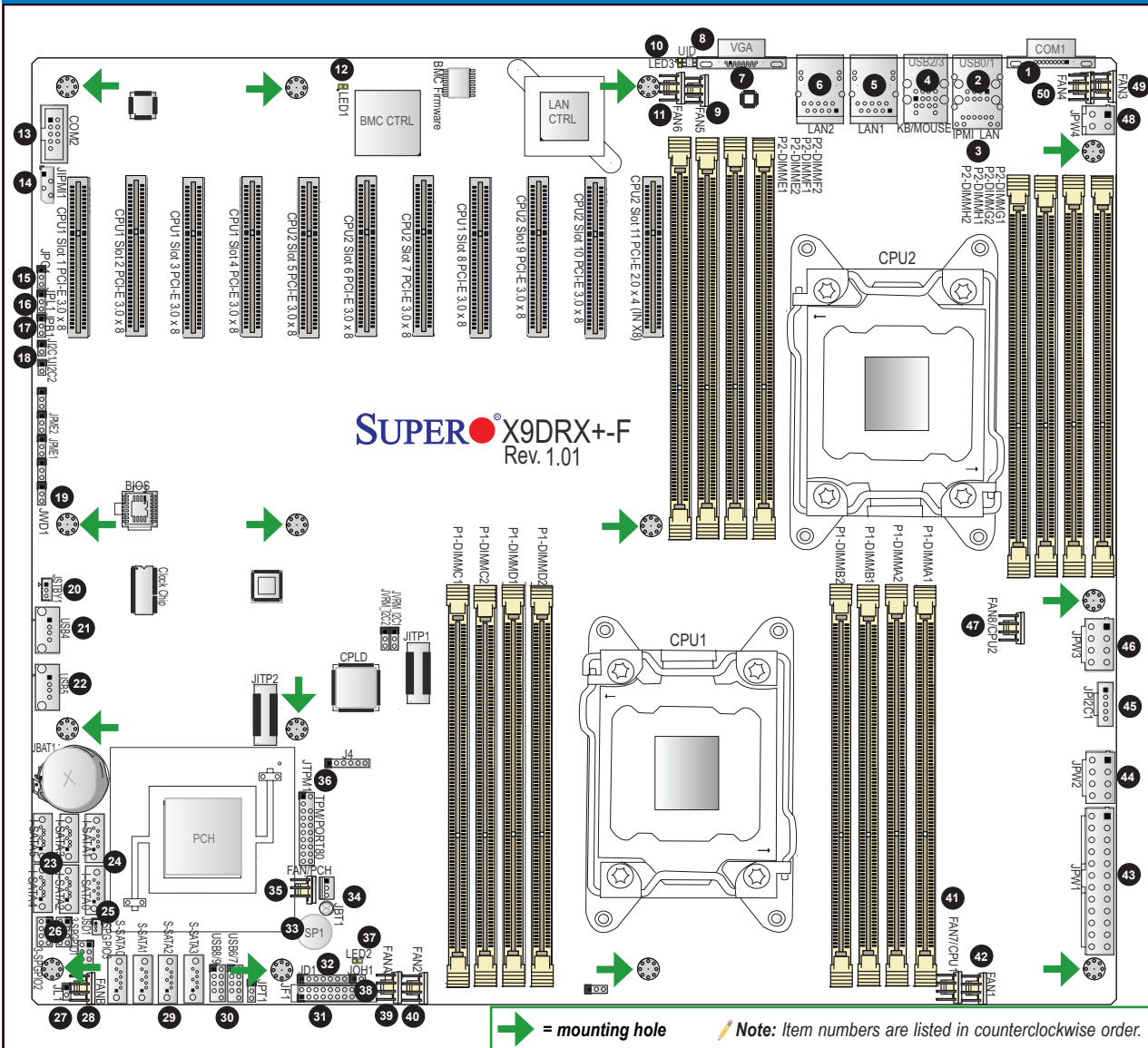


Motherboard Layout and Features



Jumpers, Connectors and LED Indicators

Jumpers

Jumper	Item #	Description	Default
JBT1	34	Clear CMOS	See Chpt. 2 in User Manual
JiPC1/JiPC2	18	SMB to PCI-E Slots	Off (Disabled)
JPB1	17	BMC Enabled	Pins 1-2 (Enabled)
JPG1	15	VGA Enabled	Pins 1-2 (Enabled)
JPL1	16	GLAN1/GLAN2 Enable	Pins 1-2 (Enabled)
JWD1	19	Watch Dog Timer Enable	Pins 1-2 (Reset)

Connectors

Connector	Item #	Description
COM1/COM2	1, 13	Backplane COM Port1/Front Accessible COM2 Header
Fan 1~4	42, 40, 49, 50	CPU/System 4-Pin Fan Headers
Fan 5~8	9, 11, 41, 47	CPU/System 4-Pin Fan Headers (Fan 7/8 CPU 1/2 Fans)
FanA, FanB	39, 28	CPU/System 4-Pin Fan Headers
FAN PCH	35	3-Pin PCH Fan Header
JD1	32	Speaker/Power LED Indicator
JF1	31	Front Panel Control Header
JIPMI1	14	4-pin External BMC I ² C Header (for an IPMI Card)
JL1	27	Chassis Intrusion
JOH1	38	Overheat LED Indicator
JPiPC1	45	Power Supply SMBus I ² C Header
JPW1	43	ATX 24-Pin Power Connector
JPW2/3	44, 46	12V 8-Pin Power Connectors
JPW4	48	12V 4-Pin Power Connector (optional)
JSTBY1	20	3V Standby Power Header
JTPM1	36	TPM (Trusted Platform Module)/Port 80 Header
JSD1	25	SATA Device Power Connector
LAN1/LAN2	5, 6	G-bit Ethernet Ports 1/2
(IPMI) LAN	3	IPMI Dedicated LAN
(I)-SATA 0/1	24	Intel SB I-SATA 3.0 Connectors #0/1
(I)-SATA 2~5	23	Intel PCH SATA 2.0 Connectors 2~5 (Color: Black)
(S)-SATA 0~3	29	Intel SB S-SATA 2.0 Connectors #0~3
SP1	33	Onboard Buzzer (Internal Speaker)
3-SGPIO 1/2/3	26	Serial Link General Purpose I/O Headers
USB 0/1, 2/3	2, 4	Back Panel USB 0/1, 2/3
USB 4, 5	21, 22	Front Panel Type A USB Connections
USB 6/7, USB 8/9	30	Front Panel Accessible USB Connections
UID	8	UID (Unit Identification) Switch
VGA	7	Backpanel VGA Port

LED Indicators

LED	Item #	Description	Color/State	Status
LED1	12	BMC Heartbeat LED	Green: Blinking	BMC Normal
LED2	37	Onboard PWR LED	Green: On	Main Power On
LED3	10	UID Switch LED		

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.

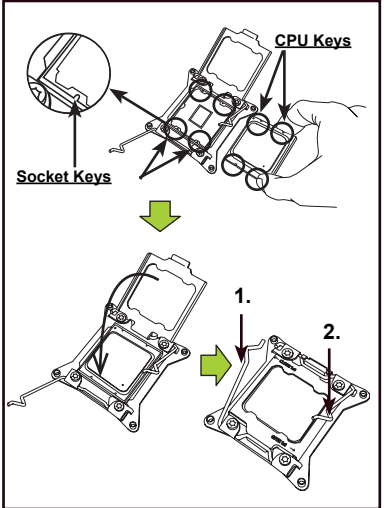
Processors and their Corresponding Memory Modules

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

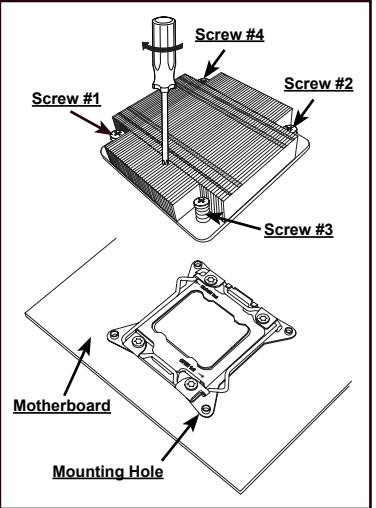
Processor and Memory Module Population for Optimal Performance

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

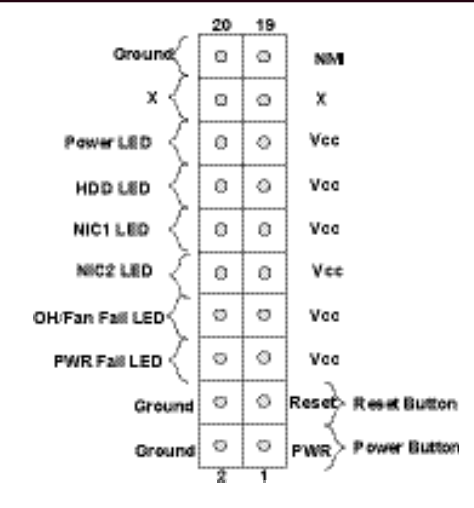
CPU Installation



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.