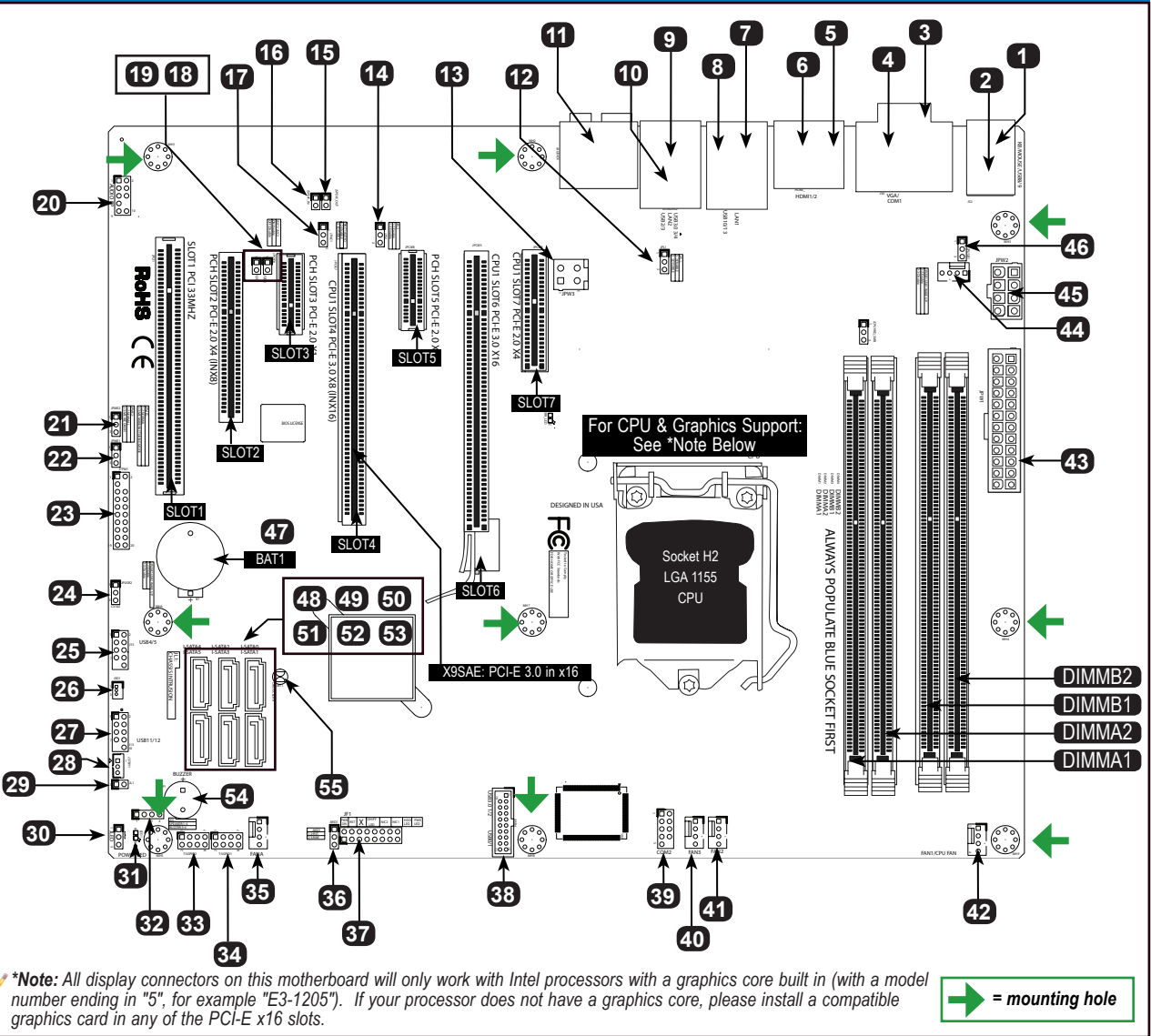
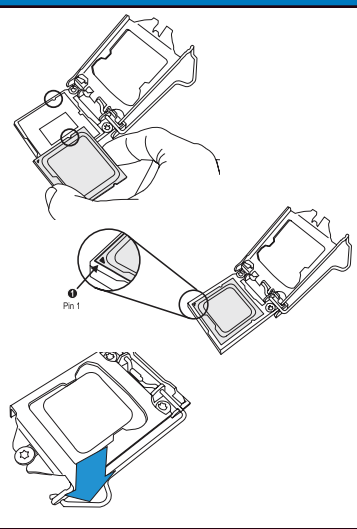


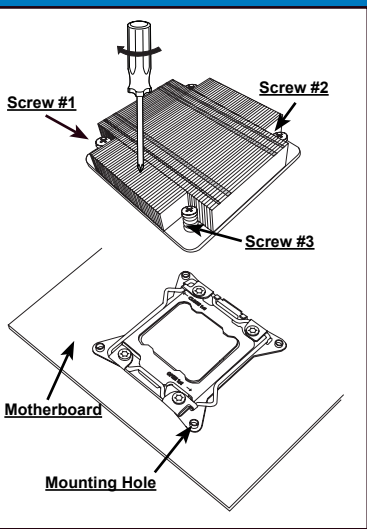
Motherboard Layout and Features



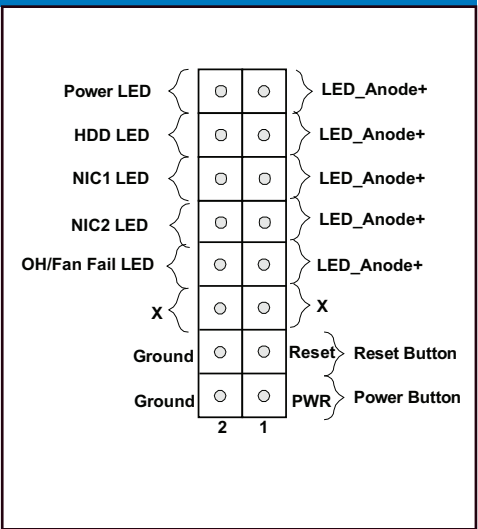
CPU Installation



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.

Jumpers, Connectors and LED Indicators

Jumpers			
12,14	JPL1/JPL2	LAN1/LAN2 Disable/Enable	Pins 1-2 (Enabled)
17	JPAC1	Audio Enable	Pins 1-2 (Enabled)
18,19	JI2C1/JI2C2	SMB to PCI Slots	Off (Disabled)
21	JPME2	Intel ME Manufacturing Mode	Pins 1-2 (Disabled)
22	JPME1	Intel ME Recovery Mode	Pins 1-2 (Disabled)
24,46	JPUSB2/JPUSB1	USB Wake-Up (JPUSB1: Backpanel, JPUSB2: Headers)	Pins 1-2 (Enabled)
36	JWD1	Watch Dog Timer Reset	Pins 1-2 (Reset)
55	JB1	CMOS Clear	Short contact pads to reset CMOS

Connectors		
1	KB/MS	Keyboard/Mouse Connectors
2,8	USB 8/9, 10/13	Backpanel USB 2.0 8/9, 10/13
3,39	COM1, COM2	COM1 Port (Back Panel), COM2 Serial Port Header
4	VGA	Backpanel VGA Port
5,6	HDMI1, HDMI2	Backpanel HDMI Ports
7,9	LAN1/LAN2	Gigabit (RJ45) Ports (LAN1/2)
10	USB 2/3	Backpanel USB 2.0 2/3 (USB 3.0 3/4)
11	JAUDIO	High-Definition Audio Connectors (on the I/O back panel)
13	JPW3	+12V 4-pin Auxiliary power Connector
15,16	S/PDIF OUT, S/PDIF IN	SPDIF (Sony/Philips Digital Interface) In/Out Headers
20	AUDIO FP	Front Panel Audio Header
23	JTPM1	TPM (Trusted Platform Module) 1.2 Header
25,27	USB 4/5, 11/12	Front Panel Accessible USB 2.0 Headers 4/5, 11/12
26	JSD1	SATA DOM (Device_On_Module) Power Connector
28	JSTBY	Legacy Wake on LAN Header
29	JL1	Chassis Intrusion Header
30	JLED	Power LED Indicator Header
32	JD1	Speaker/buzzer (Pins 1-2: Buzzer, Pins 1~4: External Speaker)
33,34	T-SGPIO2, T-SGPIO1	Serial General Purpose I/O Headers (for SATA)
35,40,41,42,44	FAN A,3,2,1,4	System/CPU Fan Headers (FAN1: CPU Fan, FANA: I/O Cards)
37	JF1	Front Panel Control Header
38	USB 0/1	Front Panel Accessible USB 2.0 Headers 0/1 (USB 3.0 1/2)
43	JPW1	24-pin ATX Main Power Connector (Required)
45	JPW2	+12V 8-pin CPU power Connector (Required)
47,54	BAT1, SPK1	Onboard Battery, Internal Speaker/Buzzer
48,49,51,52	I-SATA 4,2,5,3	Serial ATA (SATA 2.0) Ports 2~5 (3Gb/sec)
50,53	I-SATA0 / I-SATA1	Serial ATA (SATA 3.0) Ports 0/1 (6Gb/sec)

LED Indicators			
31	LED1	Onboard Standby PWR LED	Green: Solid on Power On

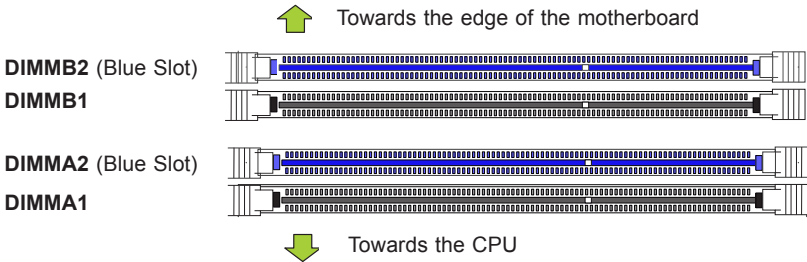
Note: Refer to Chapter 1 of the User Manual for detailed information on jumpers, connectors, and LED indicators.

Memory Support

The X9SAE Motherboard Series supports up to 32GB of Unbuffered (UDIMM) DDR3 ECC/Non-ECC 1600/1333/1066 MHz in 4 memory 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 Memory Installation



Memory Population Guidelines

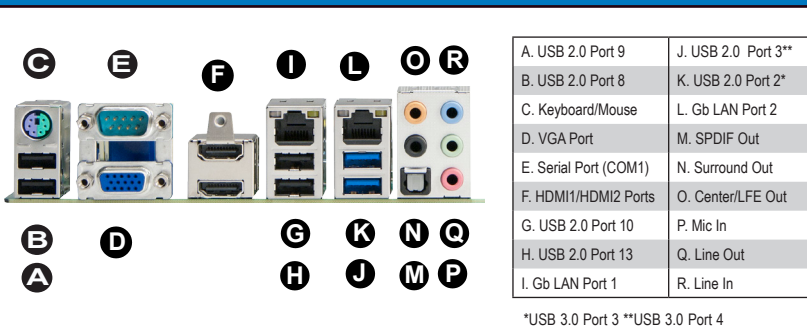
When installing memory modules, the DIMM slots should be populated in the following order: DIMMA2, DIMMB2, DIMMA1 and DIMMB1.

- Always use DDR3 DIMM modules of the same size, type and speed.
- Mixed DIMM speeds can be installed. However, all DIMMs will run at the speed of the slowest DIMM.
- The motherboard will support one DIMM module or three DIMM modules installed. For best memory performance, install DIMM modules in pairs.

Recommended Population (Balanced)				
DIMMA2 Slot	DIMMB2 Slot	DIMMA1 Slot	DIMMB1 Slot	Total System Memory
2GB	2GB			4GB
2GB	2GB	2GB	2GB	8GB
4GB	4GB			8GB
4GB	4GB	4GB	4GB	16GB
8GB	8GB			16GB
8GB	8GB	8GB	8GB	32GB

Note: Due to memory allocation to system devices, the amount of memory that remains available for operational use will be reduced when 4 GB of RAM is used.

Back Panel I/O Connectors



*USB 3.0 Port 3 **USB 3.0 Port 4

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