SUPERMICRO®
X13SEM-F/TF
Quick Reference Guide 1.0c

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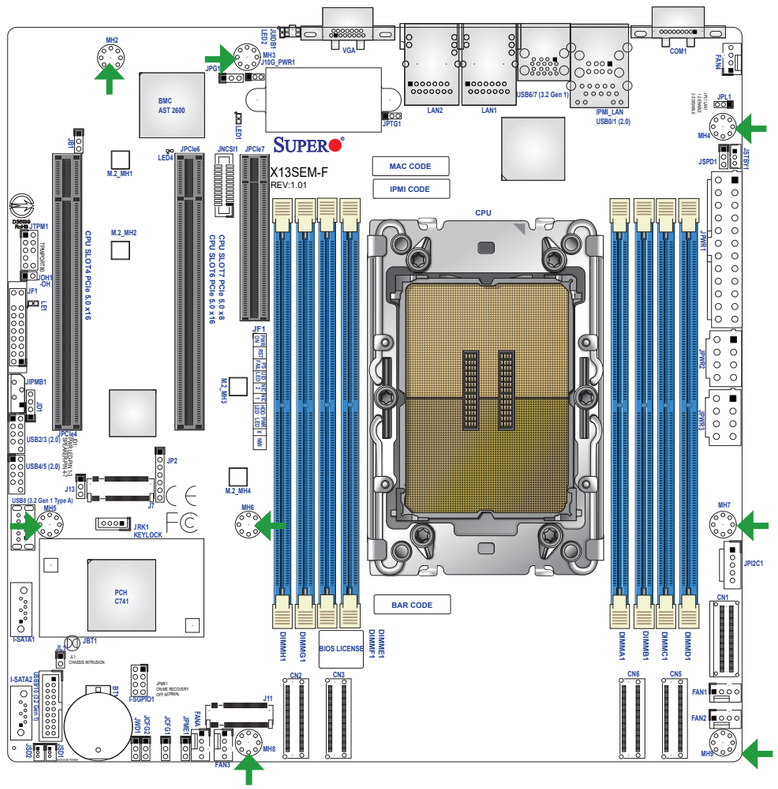
For your system to work properly, please download appropriate drivers/images/user's manual from the links below:
- Manuals: http://www.supermicro.com/support/manuals
- Drivers & Utilities: https://www.supermicro.com/wdl/driver/
- Safety: http://www.supermicro.com/about/policies/safety_information.cfm

Package Contents
- One Supermicro Motherboard
- One Quick Reference Guide
- One I/O Shield
- Two SATA Cables
- Two CPU Carriers

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.

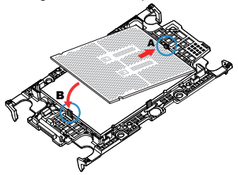
Motherboard Layout and Features



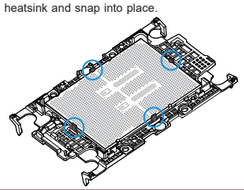
= mounting hole

CPU and PHM Installation

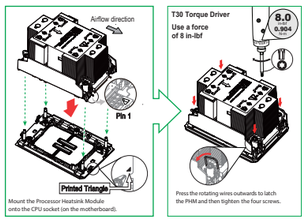
1. Assemble the processor carrier assembly by inserting the CPU into the processor carrier.



2. To form the processor heatsink module (PHM), mount the processor carrier assembly onto the heatsink and snap into place.

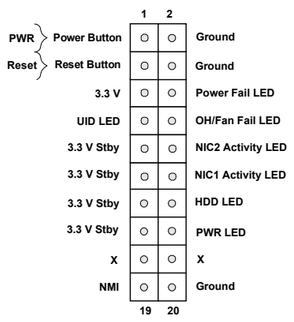


3. After assembling the PHM, mount it onto the CPU socket. With a T30 bit torque driver set to a force of 8.0 in-lbf (0.904 N-m), gradually tighten the four screws.



*The CPU carriers XCC (SKT-1333L-0000-FXC) and MCC (SKT-1424L-001B-FXC) are included in the shipping package.

Front Control Panel



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 and Connectors

Jumpers

Jumper	Description	Default Setting
JBT1	CMOS Clear	Open (Normal)
JCFG1, JCFG2	SATA/PCIe Flex I/O for CN1	Pins 1-2 (SATA)
JPG1	VGA Enable/Disable	Pins 1-2 (Enabled)
JPL1	LAN1 and LAN2 Enable/Disable (I350, X13SEM-F only)	Pins 1-2 (Enabled)
JPME1	ME Recovery Mode	Pins 1-2 (Normal)
JPTG1	LAN1 and LAN2 Enable/Disable (X550, X13SEM-TF only)	Pins 1-2 (Enabled)
JWD1	Watch Dog Timer	Pins 1-2 (Reset)

Connectors

Connector	Description
BT1	Onboard Battery
CN1	SlimSAS connector that supports eight SATA3 devices or two PCIe 3.0 x4 devices
CN2, CN3, CN5, CN6	PCIe 5.0 x8 MCIO Connectors
COM1	COM Port
FAN1–FAN4, FANA	CPU/System Fan Headers (FAN1: CPU Fan)
IPMI LAN	Dedicated IPMI LAN Port
I-SATA1, I-SATA2	Intel® PCH SATA 3.0 Ports
I-SGPIO1	Serial Link General Purpose I/O Header
J7, J11	M.2 PCIe 4.0 x2 (in 22110, 2280)
JD1	Internal Speaker Header
JF1	Front Control Panel Header
JIPMB1	System Management Bus Header (for IPMI only)
JL1	Chassis Intrusion Header
JNCSI	NC-SI Port Selection
JOH1-OH	Overheat LED Header
JPI²C1	Power System Management Bus I²C Header
JPWR1	24-pin ATX Power Connector (Required)
JPWR2, JPWR3	12 V 8-pin CPU Power Connector
JRK1	Intel RAID Key Header
JSD1, JSD2	SATA DOM Power Connectors
JSTBY1	Standby Power Connector
JTPM1	Trusted Platform Module/Port 80 Connector
JUIDB1	Unit Identifier Switch
LAN1, LAN2	1 GbE (X13SEM-F) or 10 GbE (X13SEM-TF) LAN Ports
USB0/1	Back Panel USB 2.0 Ports
USB2/3, USB4/5	Front Accessible USB 2.0 Headers
USB6/7	Back Panel USB 3.2 Gen 1 Ports

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

Connectors and LED Indicators

Connectors

Connector	Description
USB8	Front Accessible USB 3.2 Gen 1 Type A Header
USB9/10	Front Accessible USB 3.2 Gen 1 Headers
VGA	VGA Port

LED Indicators

LED	Description	Status
LE1	Power LED	Solid Green: Power On
LED1	BMC Heartbeat LED	Blinking Green: BMC Normal
LED2	UID LED	Solid Blue: Unit Identified

CPU and Memory Support

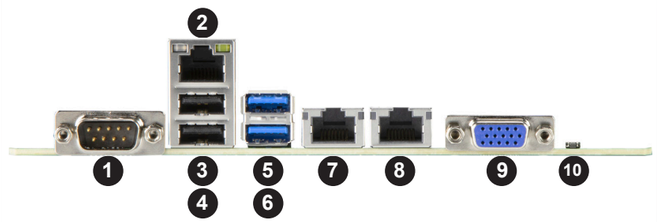
The X13SEM-F/-TF motherboard supports the 4th and 5th Generation Intel® Xeon® Scalable Processors with up to 60 (4th Generation) or 64 (5th Generation) cores in a Socket E socket.

The motherboard supports up to 2 TB of ECC RDIMM, RDIMM 3DS, and 9x4 RDIMM DDR5 memory in eight memory slots. The 4th Generation Intel® Xeon® Scalable Processor memory has speeds of up to 4800 MT/s, while the 5th Generation Intel® Xeon® Scalable Processor memory has speeds of up to 5600 MT/s.

1 CPU, 8 DIMM Slots

Number of DIMMs	Memory Population Sequence
1	DIMMA1
	DIMME1
2	DIMMA1 / DIMMG1
	DIMMC1 / DIMME1
4	DIMMA1 / DIMMG1 / DIMMC1 / DIMME1
6	DIMMA1 / DIMMG1 / DIMMC1 / DIMME1 / DIMMD1 / DIMMF1
	DIMMA1 / DIMMG1 / DIMMC1 / DIMME1 / DIMMB1 / DIMMH1
	DIMMC1 / DIMME1 / DIMMB1 / DIMMH1 / DIMMD1 / DIMMF1
	DIMMA1 / DIMMG1 / DIMMB1 / DIMMH1 / DIMMD1 / DIMMF1
8	DIMMA1 / DIMMG1 / DIMMB1 / DIMMH1 / DIMMD1 / DIMMF1 / DIMMC1 /DIMME1

Back Panel I/O Connectors



#	Description	#	Description	#	Description
1.	COM1	5.	USB6	9.	VGA
2.	IPMI_LAN	6.	USB7	10.	UID Switch
3.	USB0	7.	LAN1		
4.	USB1	8.	LAN2		

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

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