Motherboard Layout and Features

→ = mounting hole

Note: Graphics shown in this quick reference guide are for illustrational purposes only. Your components may or may not look exactly the same as drawings shown in this guide.
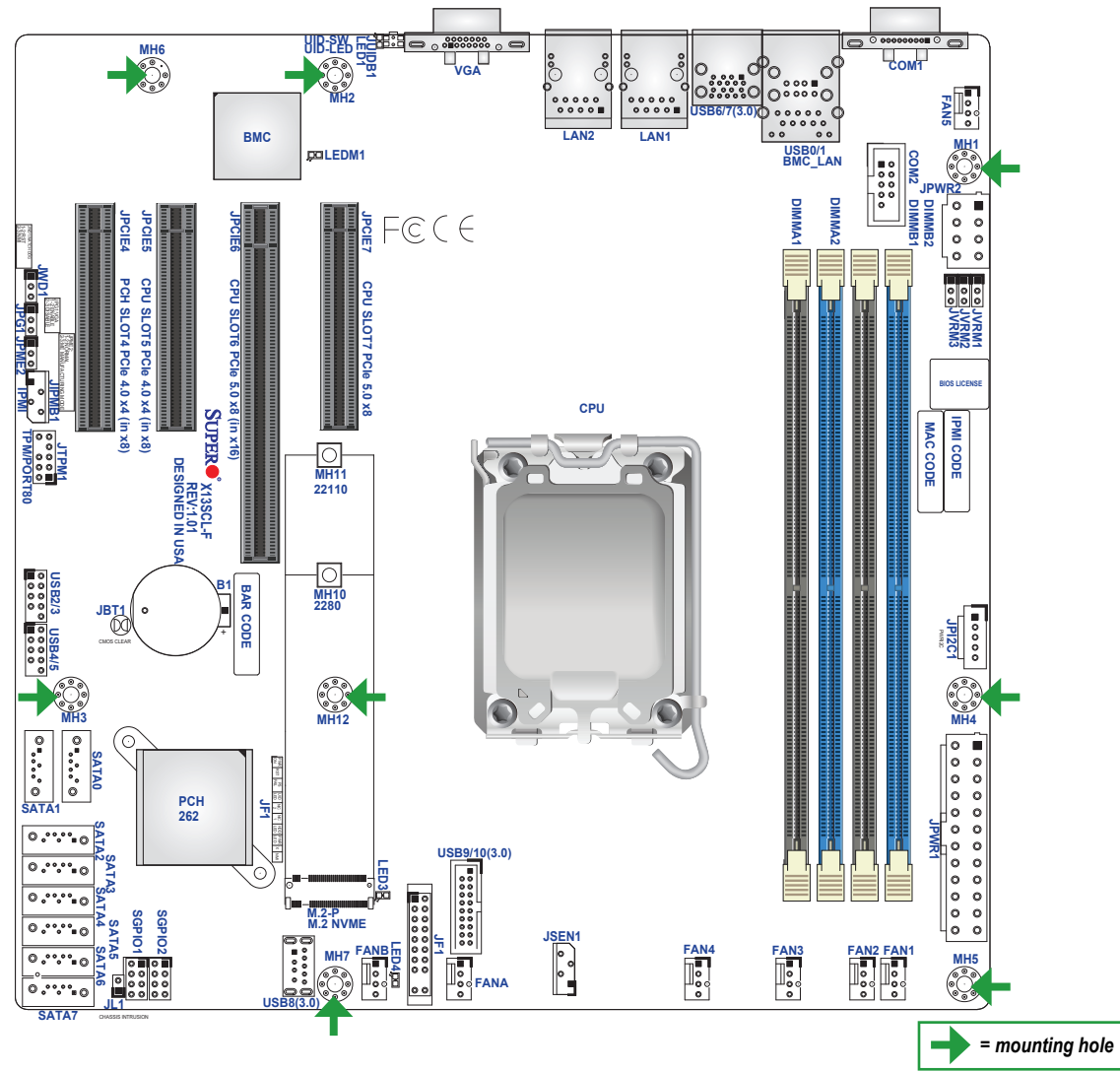
Jumpers and Connectors

Jumpers

Jumper	Description	Default
JBT1	CMOS Clear	Open (Normal)
JPG1	VGA Enable	Pins 1–2 (Enabled)
JPME2	ME Manufacturing Mode	Pins 1–2 (Normal)
JVRM1	SMB DATA (to BMC)	Pins 2–3
JVRM2	SMB CLOCK (to BMC)	Pins 2–3
JVRM3	SMB DATA/CLOCK (to CHIP)	Open
JWD1	Watchdog Timer	Pins 1–2 (Reset)

Connectors

Connector	Description
B1	Onboard Battery
BMC_LAN	Dedicated BMC LAN Port
COM1, COM2	COM Port, COM Header
FAN1–FAN5, FANA, FANB	CPU/System Fan Headers
JF1	Front Control Panel Header
JL1	Chassis Intrusion Header
JPCIE4	PCH PCIe 4.0 x4 (in x8) Slot
JPCIE5	CPU PCIe 4.0 x4 (in x8) Slot
JPCIE6	CPU PCIe 5.0 x8 (in x16) Slot
JPCIE7	CPU PCIe 5.0 x8 Slot
JPI²C1	Power I²C System Management Bus (SMB) Header
JPWR1	24-pin ATX Power Supply Connector
JPWR2	8-pin Power Connector
JTPM1	Trusted Platform Module (TPM)/Port 80 Header
JUIDB1	Unit Identifier (UID) Switch
LAN1, LAN2	1GbE LAN Ports
M.2-P	M.2 Slot (PCIe 4.0 x4, supports M-Key 2280 / 22110)
SATA0–SATA7	Intel® PCH SATA 3.0 Ports (with RAID 0, 1, 5, 10) SATA0 and SATA1 supports SuperDOM
SGPIO1, SGPIO2	Serial Link General Purpose I/O Headers
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
USB8	Front Accessible USB 3.2 Gen 1 Type-A Header
USB9/10	Front Accessible USB 3.2 Gen 1 Header
VGA	VGA Port

LED Indicators

LED	Description	Status
LED1	Unit Identifier (UID) LED	Solid Blue: Unit Identified
LED3	M.2 LED	Blinking Green: Device Working
LED4	Onboard Power LED	Solid Green: Power On
LEDM1	BMC Heartbeat LED	Blinking Green: BMC Normal

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

CPU Support

The X13SCL-F supports an Intel® Xeon® E-2400 or 12th Generation Pentium processor in a V0 - LGA1700 socket with a thermal design power (TDP) of up to 95 W and up to eight cores.
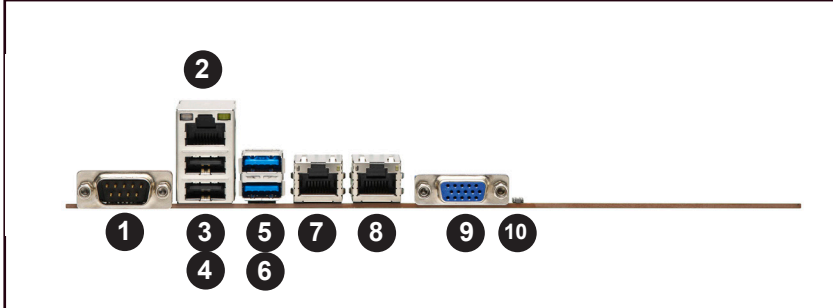
Memory Support and Installation

The X13SCL-F motherboard supports up to 128 GB of ECC UDIMM DDR5 memory with speeds of up to 4400 MT/s in four memory slots (two DIMMs per channel). See below for additional memory information.

Insert the desired number of DIMMs into the memory slots in the sequence of DIMMA1, DIMMA2, DIMMB1, and DIMMB2. Populating these DIMM slots with a pair of memory modules of the same type and size will result in interleaved memory, which will improve memory performance.

- The blue slots must be populated first.

- It is recommended to use DDR5 memory of the same type, size, and speed. Mixed DIMM speeds can be installed. However, all DIMMs will run at the speed of the slowest DIMM.

- The motherboard will support an odd amount of memory modules. However, to achieve the best memory performance, a balanced memory population is recommended.
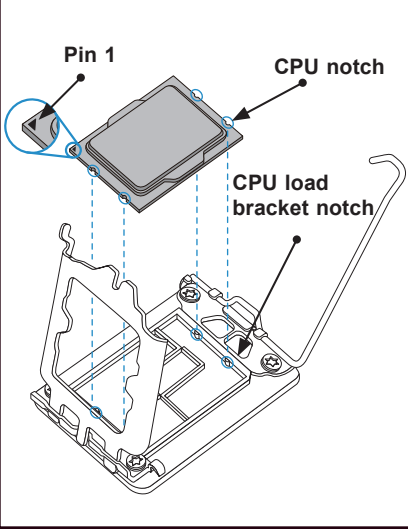
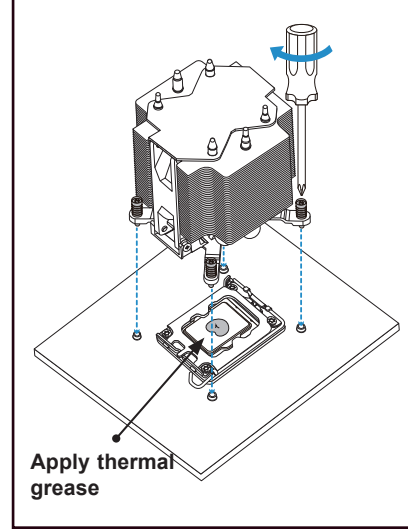| 1 CPU, 4 DIMM Slots	
Number of DIMMs	**Memory Population Sequence**
1	DIMMA2
	DIMMB2
2	DIMMA2 / DIMMB2
3 (Unbalanced: Not Recommended)	DIMMA1 / DIMMA2 / DIMMB2
	DIMMA2 / DIMMB1 / DIMMB2
4	DIMMA1 / DIMMA2 / DIMMB1 / DIMMB2

Back Panel I/O Connectors

#	Description	#	Description
1	COM1	6	USB6 (USB 3.2 Gen 1)
2	Dedicated BMC LAN	7	LAN1
3	USB1 (USB 2.0)	8	LAN2
4	USB0 (USB 2.0)	9	VGA Port
5	USB7 (USB 3.2 Gen 1)	10	UID Switch

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

CPU Installation

Pin 1 · CPU notch · CPU load bracket notch

Heatsink Installation

Apply thermal grease

Front Control Panel

	1	2	
PWR Power Button	○	○	Ground
Reset Reset Button	○	○	Ground
3.3 V	○	○	Power Fail LED
UID LED	○	○	OH/Fan Fail LED
3.3 V Stby	○	○	NIC2 Active LED
3.3 V Stby	○	○	NIC1 Active LED
UID SW	○	○	HDD LED
3.3 V	○	○	PWR LED
X	○	○	X
NMI	○	○	Ground
	19	20	