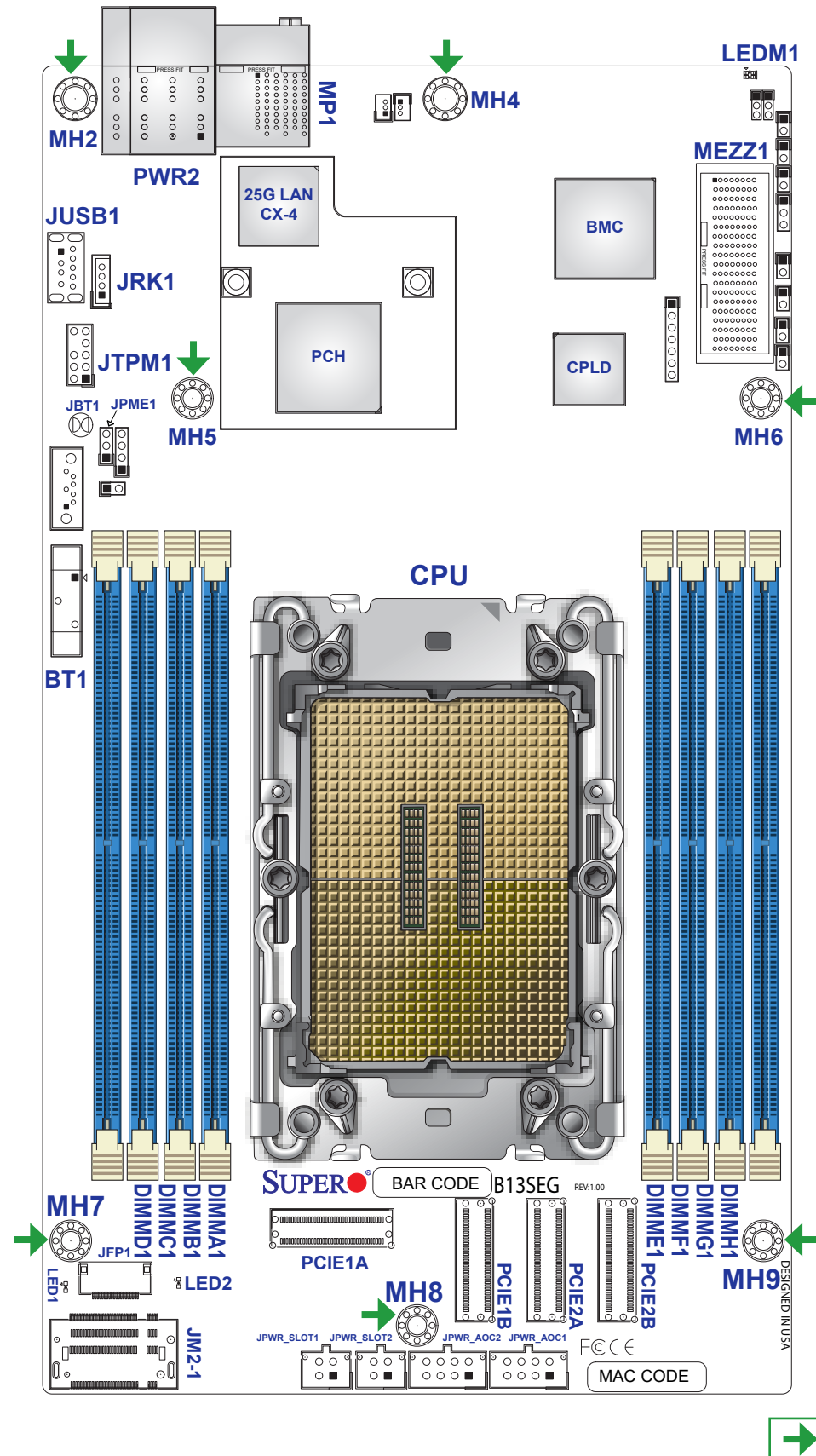


Motherboard Layout and Features



Jumpers, Connectors, and LED indicators

Jumpers		
Jumper	Description	Default Setting
JPME1	ME Recovery Mode	Pins 1-2 (Normal)

Connectors	
Connector	Description
BT1	Onboard CMOS Battery
MP1	Chassis Backplane Connector
PWR2	Main Power Connector
JFP1	Front Control Panel Header
JPWR_AOC1, JPWR_AOC2	Proprietary Riser Power Connector
JPWR_SLOT1, JPWR_SLOT2	Proprietary Riser Power Connector
JRK1	Intel RAID Key Header
JTPM1	Trusted Platform Module (TPM)/Port 80 Connector
JUSB1	Internal USB 2.0/3.0 Type-A Connector
JM2-1	M.2 M-Key PCIe 5.0 Connector for M.2A and M.2B
MEZZ1	Mezzanine PCIe 5.0 x16 Connector for a Mezzanine daughter card
PCIE1A, PCIE1B, PCIE2A, PCIE2B	PCIe 5.0 x8 MCIO Connector
MH2, MH4 – MH7, MH9	Mounting Holes

LED Indicators		
LED	Description	Status
LED1	M.2 Activity LED for M.2A	Green: M.2 Device Active
LED2	M.2 Activity LED for M.2B	Green: M.2 Device Active
LEDM1	BMC Heartbeat LED	Blinking Green: BMC Normal

Front Control Panel

Function	State	Description
Power Button	N/A	Turns the blade module on and off.
Power LED	Green	Indicates power status "On."
	Flashing Orange	Indicates the node is not ready or not enough power to turn on.
KVM/UID LED	Blue	Indicates KVM is in use by the blade unit.
Network/IB LED	Flashing Green	Indicates network activity over LAN.
	Flashing Orange	Indicates network activity over the Infiniband module.
System Fault LED	Red	Indicates a memory error, overheat, VGA error, or any other error that prevents booting.

Memory and CPU Support

The B13SEG motherboard supports up to 2 TB of ECC RDIMM/RDIMM 3DS with speeds of up to 5600 MT/s in eight memory slots.

DIMM Memory Installation

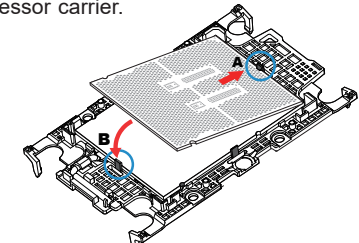
Insert the desired number of DIMMs into memory slots based on the recommended memory population sequence below. For the system to function properly, use memory modules of the same type and speed.

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

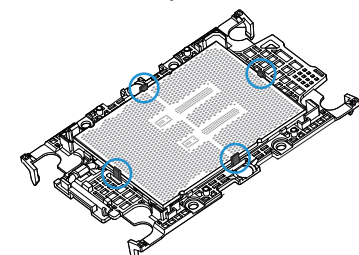
CPU Installation

The B13SEG motherboard supports a 4th and 5th Generation Intel® Xeon® Scalable Processor with a TDP of up to 270 W on air cooling and 350 W on liquid cooling in an LGA4677 socket.

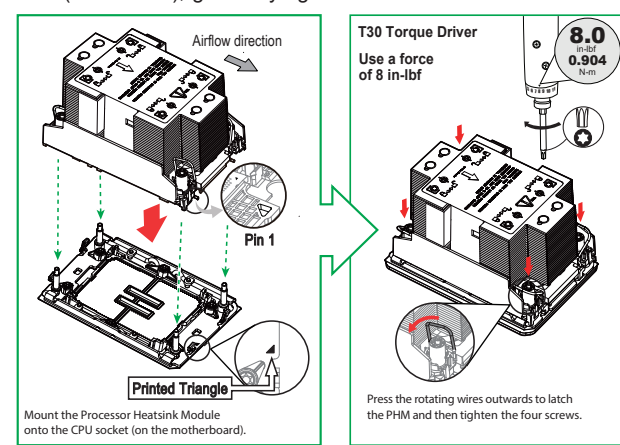
- Assemble the processor carrier assembly by inserting the CPU into the processor carrier.



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



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



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

Note: Refer to Chapter 1 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.