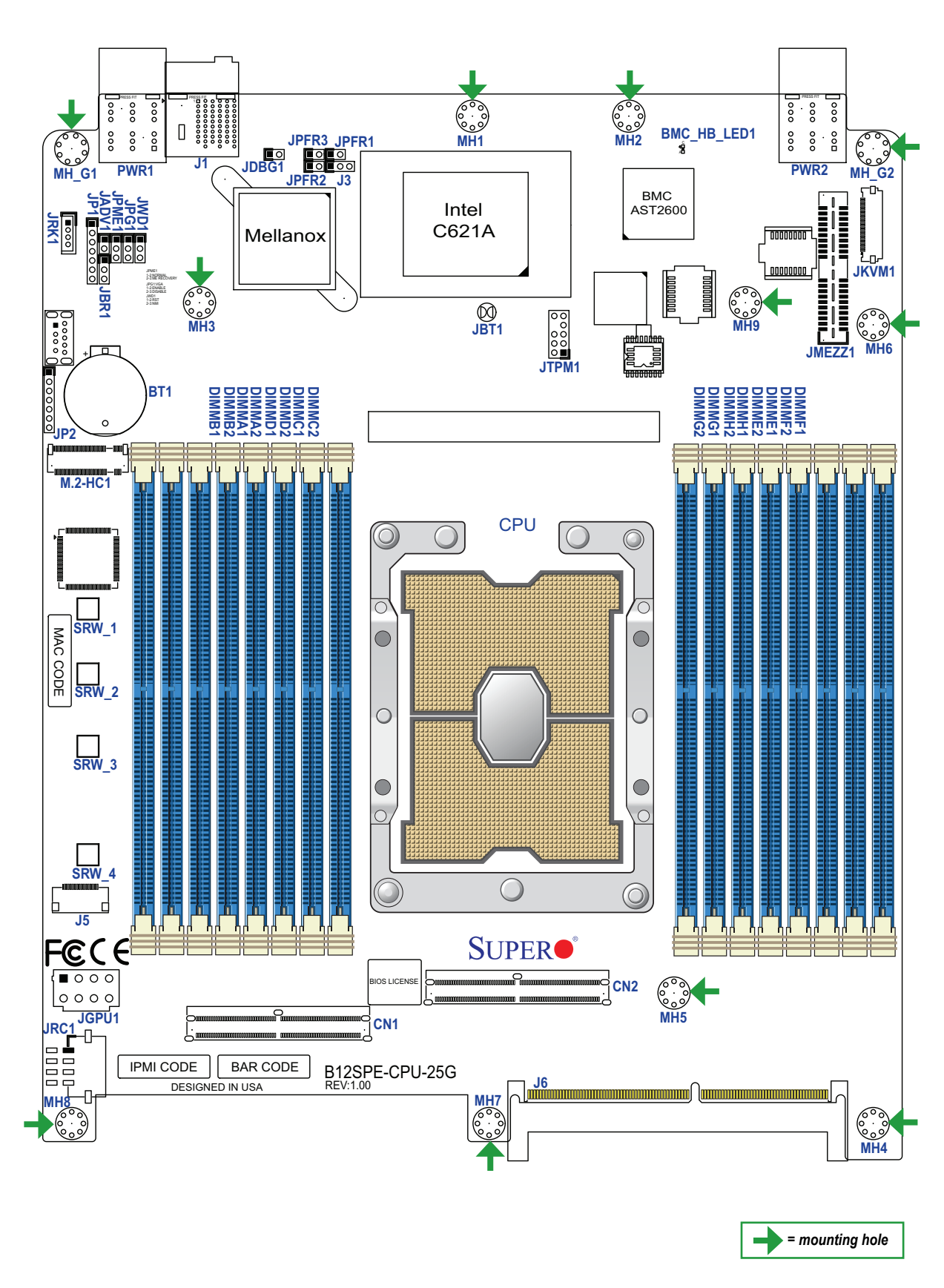




Motherboard Layout and Features



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		
Jumper	Description	Default Setting
JBR1	BIOS Recovery	Pins 1-2 (Normal)
JBT1	CMOS Clear	Open (Normal)
JPG1	VGA Enable	Pins 1-2 (Enable)
JPME1	ME Recovery	Pins 1-2 (Normal)
JWD1	Watch Dog Timer	Pins 1-2 (Reset)

Connectors	
Connector	Description
BT1	Onboard CMOS Battery
CN1, CN2	MCIO PCIe 4.0 x16 Connectors
J1	Chassis Backplane Connector
J5	Front Panel Connector
J6	PCIe 3.0 x16 SIOM Connector
JGPU1	12 V GPU Power Connector (ATX 8-pin)
JKVM1	VGA/USB Module Connector
JMEZZ1	PCIe 4.0 x8 Mezzanine Card Connector for AOM
JRC1	Proprietary Riser Power Connector
JRK1	Intel® RAID Key Header
JTPM1	Trusted Platform Module (TPM)/Port 80 connector
MH1 - MH9	Mounting Holes
MH_G1 - MH_G2	Mounting Holes
M.2-HC1	Hybrid M.2 M-Key PCIe 3.0 x4 or SATA 3.0 Slot
PWR1	Power Receptacle to Chassis Backplane
PWR2	Power Receptacle to Chassis Backplane
SRW_1 - SRW_4	M.2 Mounting Holes

LED Indicators		
LED	Description	Status
BMC_HB_LED1	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.

Memory and CPU Support

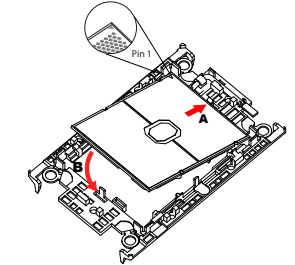
Memory Installation
 The B12SPE-CPU-25G motherboard supports up to 4 TB of DDR4 ECC RDIMM/LRDIMM/3DSLRDIMM memory with speeds of up to 3200 MT/s in 16 slots.
 The following memory population sequence table was created on guidelines created by Intel to support Supermicro motherboards.

DIMMs	Memory Slots	Alternate Slots
1 DIMM	A1	C1, E1
2 DIMMs	A1, E1,	B1, D1, F1, H1
4 DIMMs	A1, C1, E1, G1	A1, C1, D1, E1, G1, H1
6 DIMMs	A1, B1, C1, E1, F1, G1	
8 DIMMs	A1, B1, C1, D1, E1, F1, G1, H1	
12 DIMMs	A1, A2, B1, B2, C1, D1, E1, E2, F1, F2, G1, H1	A1, A2, C1, C2, D1, D2, E1, E2, G1, G2, H1, H2 or A1, A2, B1, C1, C2, D1, E1, E2, F1, G1, G2, H1
16 DIMMs	all	

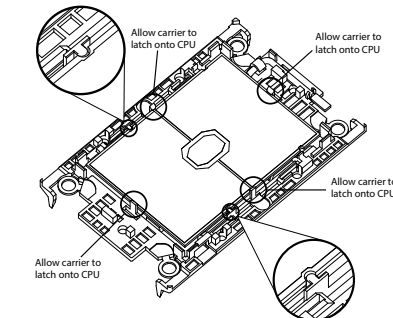
CPU Installation

The B12SPE-CPU-25G motherboard supports a 3rd Generation Intel Xeon Scalable Processor with up to 56/38 cores and 300 W/270 W TDP in an LGA4189 socket.

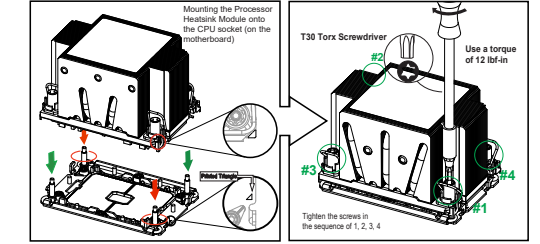
- Assemble the processor carrier assembly by inserting the CPU into the processor carrier.



- 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. Use a T-30 Torx-bit screwdriver to gradually install four screws into the mounting holes from #1-4.



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