SUPERMICRO®
B14SBE-CPU-25G
Quick Reference Guide 1.0b

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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/
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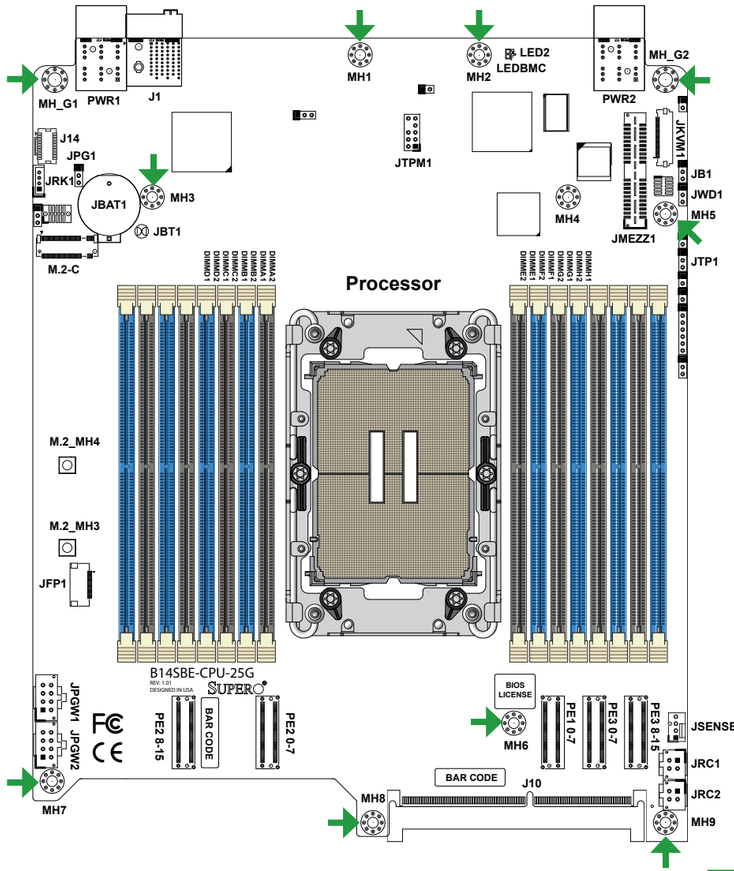
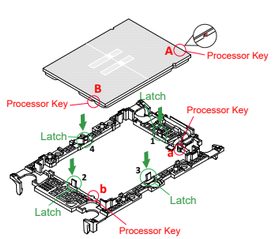
WARNING: This product can expose you to chemicals including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

Motherboard Layout and Features

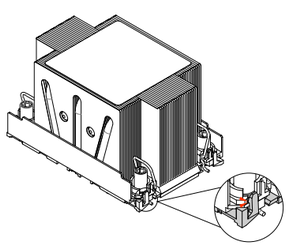


Processor and PHM Installation

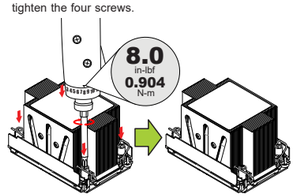
1. Assemble the processor carrier assembly by aligning and placing one end of the processor into the latch marked A, and place the other end of processor into the latch marked B.



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 processor 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 processor carriers (SKT-1543H-0000-FXC and SKT-1544H-0000-FXC) are included in the shipping package.

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.

Jumpers and Connectors

Jumpers

Jumper	Description	Default Setting
JBT1	Onboard CMOS Clear	Open (Normal)
JPG1	VGA Enable/Disable	Pins 1–2 (Enable)
JTP1	Onboard TPM 2.0 Enable/Disable	Pins 1–2 (Enable)

Connectors

Connector	Description
JBAT1	Onboard CMOS Battery
J1	Chassis Backplane Connector
J10	SIOM PCIe 4.0 x16 Connector for One SAS Card or Two M.2 x4 or Two PCIe 4.0 NVMe
J14	Power Distributor Board Connector
JFP1	Front Control Panel Connector
JKVM1	VGA/USB Module Connector
JMEZZ1	AOM Mezzanine Card PCIe 4.0 x16 Connector
JPGW1, JPGW2	12 V GPU MICRO-HI Power Connectors
JRC1, JRC2	Proprietary Riser Power Connectors
JRK1	Intel VROC RAID Key Header
JSENSE2	Liquid Leakage Sensor Connector
JTPM1	Trusted Platform Module (TPM)/Port 80 Connector
M.2-C	M.2 M-Key PCIe 5.0 x4 Slot (2280/22110)
PE1 0–7, PE2 0–7, PE2 8–15, PE3 0–7, PE3 8–15	MCIO PCIe 5.0 x8 Connectors
PWR1, PWR2	Power Receptacles to Chassis Backplane
MH1–MH9	Motherboard Mounting Holes
M.2_MH4	M.2 Mounting Hole for M.2 2280
M.2_MH3	M.2 Mounting Hole for M.2 22110

Note: Refer to the Component Installation section of the user manual for detailed information on jumpers, connectors, and LED indicators.

LED Indicators

LED Indicators

LED	Description	Status
LEDBMC	BMC Heartbeat LED	Blinking Green: BMC Normal
LED2	BMC Error LED	Solid Red: CPLD Recovery Failed

Processor and Memory Support

The B14SBE-CPU-25G motherboard supports the Intel® Xeon® 6700/6500 series processors with up to 86 P-cores or 6700 series processors with up to 144 E-cores in Socket E2 LGA 4710 with a TDP of up to 350 W.

The motherboard supports up to 512 GB of ECC Registered DDR5 MRDIMM (P-core only and 1 DPC) with speeds of up to 8000 MT/s; up to 4 TB 3DS or 2 TB ECC Registered DDR5 RDIMM up with speeds of up to 6400 MT/s.

The following DIMM sizes are supported:

- 16 GB, 24 GB, 32 GB, 48 GB, 64 GB, 96 GB, 128 GB, and 256 GB
- MRDIMM (P-core only): 32 GB, 64 GB
- RDIMM: 16 GB, 32 GB, 48 GB, 64 GB, 96 GB, 128 GB
- RDIMM 3DS: 256 GB

Number of DIMMs	Memory Population Sequence (RDIMM)
1	DIMMA1
4	DIMMA1/DIMMC1/DIMME1/DIMMG1 DIMMB1/DIMMD1/DIMMF1/DIMMH1
8	DIMMA1/DIMMB1/DIMMC1/DIMMD1/DIMME1/DIMMF1/DIMMG1/DIMMH1 DIMMA1/DIMMA2/DIMMC1/DIMMC2/DIMME1/DIMME2/DIMMG1/DIMMG2 DIMMB1/DIMMB2/DIMMD1/DIMMD2/DIMMF1/DIMMF2/DIMMH1/DIMMH2
16	DIMMA1/DIMMA2/DIMMB1/DIMMB2/DIMMC1/DIMMC2/DIMMD1/DIMMD2/DIMME1/DIMME2/DIMMF1/DIMMF2/DIMMG1/DIMMG2/DIMMH1/DIMMH2

Front Control Panel

Function	State	Description
Power Button	N/A	Turns the blade module on and off.
Power LED	Green	Indicates power status "On."
	Solid Orange	Indicates power status "Off" (with power cables plugged in).
	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.
	Flashing Blue	Indicates UID is activated on the blade module.
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.

Note: Refer to the Component Installation section of the user manual for detailed information on memory support and processor/motherboard installation instructions.

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