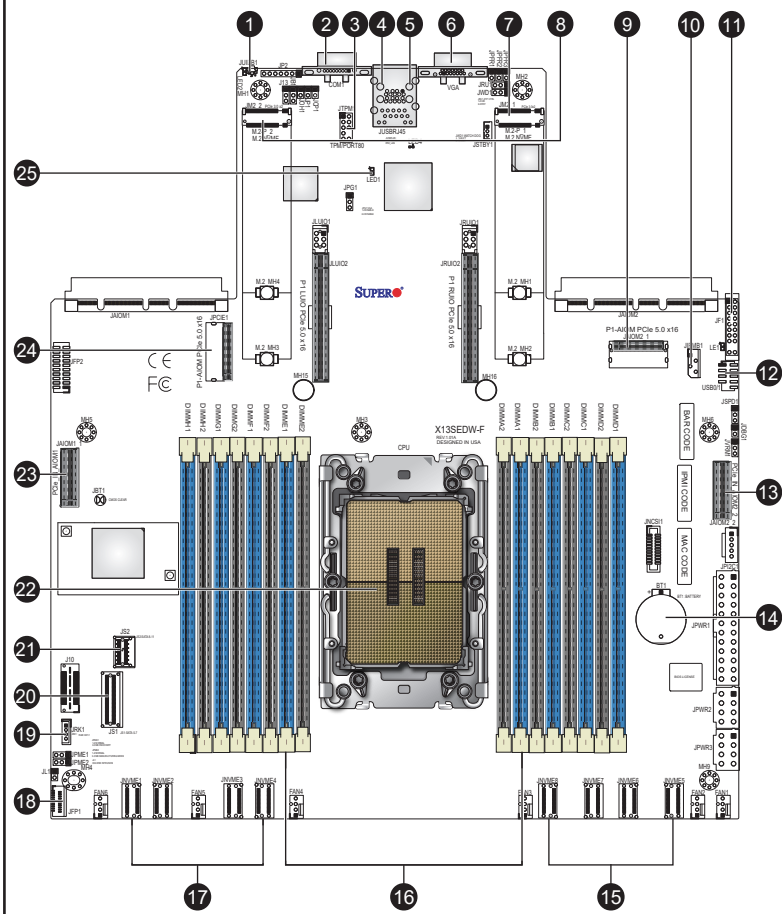


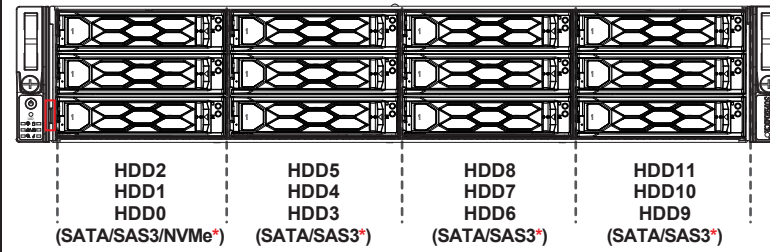
SUPERMICRO® SuperServer 521C-NR Quick Reference Guide

Board Layout

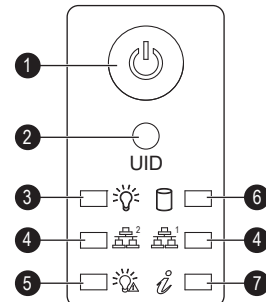


No.	Description
1	UID Button (Unit Identifier Button)
2	COM Port (Serial Port)
3	TPM Header
4	USB 3.2 Gen 1 Ports
5	Dedicated LAN for IPMI
6	VGA Port
7	M.2 PCI-E 3.0 Interface
8	M.2 PCI-E 3.0 Interface
9	JAIOM2_1 PCIe 5.0 x8 Upgrade MCIO Connector
10	JIPMB1 4-pin BMC External I2C Header
11	Front Control Panel Header (for SYS-111C-NR)
12	USB 2.0 Ports
13	JAIOM2_2 PCIe 5.0 x8 Upgrade MCIO Connector
14	Onboard CMOS Battery
15	NVME 5-8: PCIe 5.0 x4 MCIO Connectors
16	DIMM A1-H2 slots
17	NVME 1-4: PCIe 5.0 x4 MCIO Connectors
18	Front Control Panel Header (for SYS-521C-NR)
19	Intel RAID Key Header
20	SATA 0-7: SlimSAS LP SATA 3.0 Ports
21	SATA 8-11: SlimSAS LP SATA 3.0 Ports
22	CPU
23	JAIOM1_1 PCIe 5.0 x8 Upgrade MCIO Connector
24	JPCI1 PCIe 5.0 x8 MCIO Connector
25	Onboard Power LED

Front View and Features



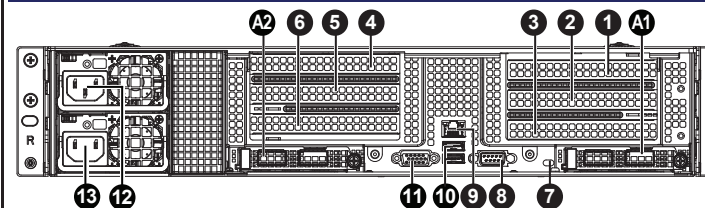
HDD2 HDD1 HDD0 (SATA/SAS3/NVMe*)	HDD4 HDD3 (SATA/SAS3*)	HDD8 HDD7 HDD6 (SATA/SAS3*)	HDD11 HDD10 HDD9 (SATA/SAS3*)
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No.	Description	No.	Description
1	Power Button	6	HDD Activity LED
2	UID Button/Reset Button	7	Universal Information LED
3	Power LED	8	Service/Asset Tag with System Serial Number and BMC Unique Password
4	LAN1 and LAN2 LED	9	Drive Device Activity LED
5	Power Failure LED	10	Drive Device Status LED

* Only HDD0 and HDD1 support SATA/SAS3/NVMe drives.

Rear View and Features



No.	Description
1/2	Configurable to 1x PCIe 5.0 x16 FHFL (Slot 1) or 2x PCIe 5.0 x8 FHHL
3	PCIe 5.0 x16 FHHL
A1	AIOM slot
4/5	Configurable to 1x PCIe 5.0 x16 FHFL (Slot 5) or 2x PCIe 5.0 x8 FHHL
6	PCIe 5.0 x16 FHHL
A2	DUMMY AIOM slot
7	UID/BMC Reset Button
8	COM port
9	Dedicated IPMI LAN Port
10	2x USB 3.2 Gen1 Ports
11	VGA port
12	PSU1: Redundant 1200 W Titanium Level Power Supply
13	PSU2: Redundant 1200 W Titanium Level Power Supply

Slot 1, Slot 2, Slot 4 and Slot 5 are configurable.

Riser Cable Configuration Guide		
LHS riser card RSC-D2-666G5		RHS riser card RSC-D2R-666G5
4x PCIe 5.0 x16 slots (Slot 1, 3, 5, 6)	JNVMe1-2 to CN4, JNVMe3-4 to CN3	JNVMe5-6 to CN2, JNVMe7-8 to CN1
2x PCIe 5.0 x16 slots (Slot 3, 6)	JNVMe1-2 to CN1, JNVMe3-4 to CN3	JNVMe5-6 to CN2, JNVMe7-8 to CN4
4x PCIe 5.0 x8 slots (Slot 1, 2, 4, 5)		

Caution and Product Resources

SAFETY INFORMATION:

IMPORTANT: See installation instructions and safety warning before connecting system to power supply.
http://www.supernano.com/about/policies/safety_information.cfm

WARNING:

To reduce risk of electric shock/damage to equipment, disconnect power from server by disconnecting all power cords from electrical outlets. If any CPU socket empty, install protective plastic CPU cap.

CAUTION:

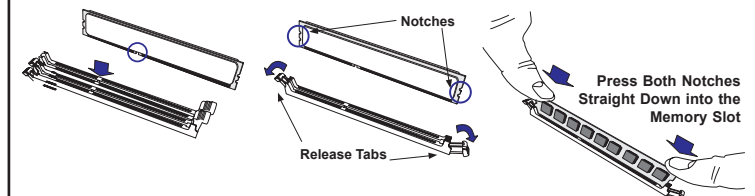
Always be sure all power supplies for this system have the same power output. If mixed power supplies are installed, the system will not operate.

CAUTION:

This unit has redundant power sources. Please disconnect all the power cords before servicing.

Memory

DIMM Installation



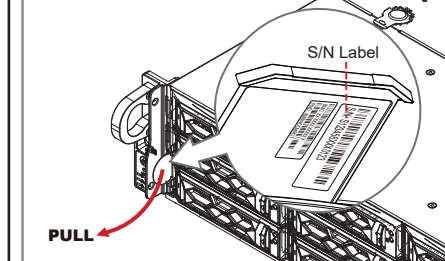
When installing memory modules, the DIMM slots should be populated in the following order: DIMMA1 / DIMMG1 / DIMMC1 / DIMME1 / DIMMD1 / DIMMF1 / DIMMB1 / DIMMH1 / DIMMA2 / DIMMG2 / DIMMC2 / DIMME2 / DIMMD2 / DIMMF2 / DIMMB2 / DIMMH2.
• Always use DDR5 DIMM modules of the same type, size, and speed.
• Mixed DIMM speeds can be installed. However, all DIMMs will run at the speed of the slowest DIMM.

1 CPU, 16-DIMM Slots

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

BMC Password Label

Pull-out tag with BMC unique password and Serial Number Label underneath.



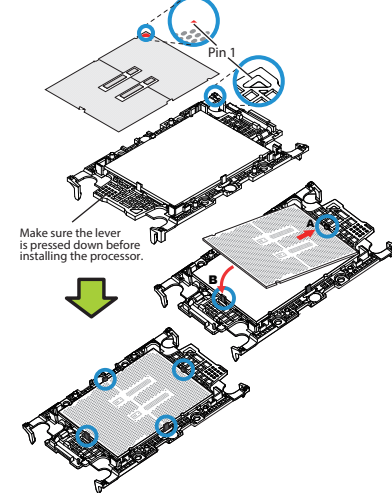
Each system comes with a unique default password for the ADMIN user. This can be found on a sticker on the motherboard and a sticker underneath the service tag on chassis. If necessary, the password can be reset by the Supermicro IPMICFG tool.

For more information, please visit <https://www.supernano.com/en/solutions/management-software/bmc-resources>

CPU Installation, Supports a single Intel Xeon Sapphire Rapids Processor (LGA 4677)

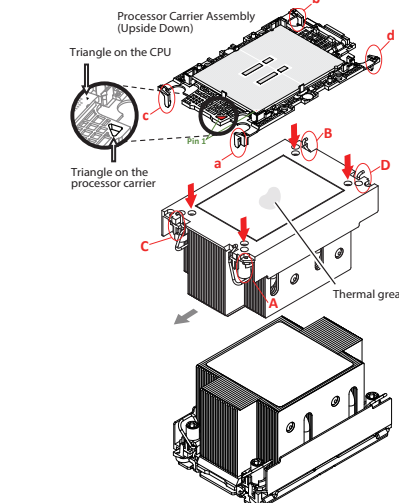
A. Creating the Intel Sapphire Rapids CPU Carrier Assembly

1. Locate small gold triangle (Pin 1) on processor and corresponding hollowed triangle on carrier.
2. Using the triangles as a guide, carefully align and place Point A of the processor into the carrier. Gently snap into place to fasten onto Point B.



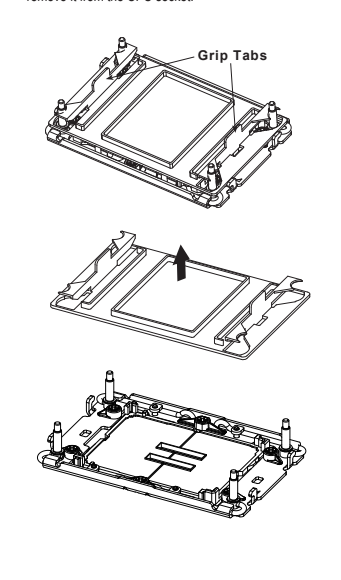
B. Assembling the Processor Heatsink Module (PHM)

1. If this is a new heatsink, the thermal grease has been preapplied. Otherwise, apply the proper amount of thermal grease.
2. Hold the processor carrier assembly so the processor's gold contacts are facing up, then align the holes of the processor carrier assembly with the holes on the heatsink. Press the processor carrier assembly down until it snaps into place. The plastic clips of the processor carrier assembly will lock at the four corners.
3. Examine all corners to ensure that the plastic clips on the processor carrier assembly are firmly attached to the heatsink.



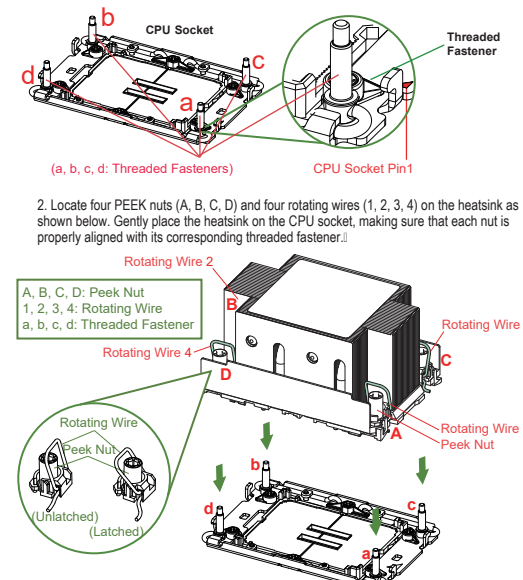
C. Preparing the CPU Socket for Installation

1. Gently pull off the plastic protective cover by one corner to remove it from the CPU socket.

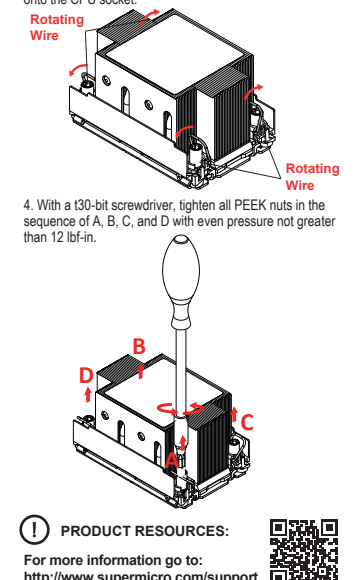


D. Installing the Process Heatsink Module

1. Locate four threaded fasteners (a, b, c, d) on the CPU socket.



3. Press all four rotating wires outward to latch the PHM onto the CPU socket.



PRODUCT RESOURCES:

For more information go to: <http://www.supernano.com/support>

