IoT SuperServer SYS-212B-N2T

X14 2U compact front I/O edge AI system with up to 5 PCIe 5.0 slots and redundant AC/DC PSU
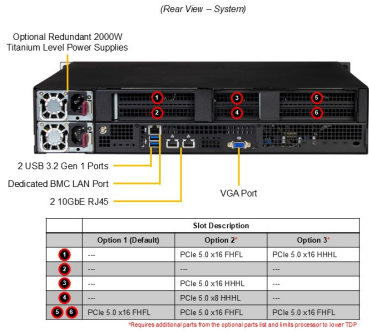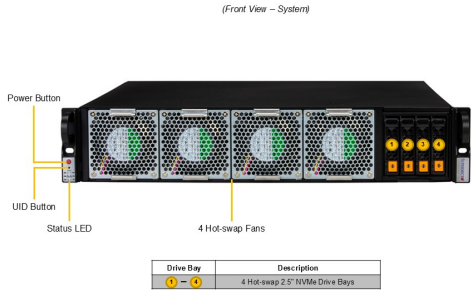
Key Applications

5G Core and Edge, AI Inference and Machine Learning, Network Function Virtualization, Healthcare, Retail,

Key Features

- Single Intel® Xeon® 6700/6500 series processors with P-cores or 6700 series processors with E-cores;
- Up to 2TB ECC RDIMM DDR5-6400MT/s or up to 512GB MRDIMM DDR5-8000MT/s in 8 DIMM slots;
- Optional PCIe slot configurations up to 4 PCIe 5.0 x16 (3 FHFL+1 HHHL) slots with support for double-width GPU/Accelerator cards;
- 2x M.2 M-Key NVMe 2280/22110;
- 2x RJ45 10GbE LAN and 1xRJ45 1GbE dedicated IPMI LAN;
- Optional 4 front 2.5" hot-swap NVMe drive bays;
- Onboard TPM9672: TCG2.0, FIPs 140-2 Level 2, Intel TXT and Microsoft Windows certification;

Form Factor	2U Rackmount Enclosure: 437 x 89 x 450mm (17.2" x 3.5" x 17.72") Package: 590 x 370 x 665mm (23.23" x 14.57" x 26.18")
Processor	Single Socket E2 (LGA-4710) Intel® Xeon® 6700/6500 series processors with P-cores or 6700 series processors with E-cores P-cores: Up to 86C/172T; Up to 336MB Cache E-cores: Up to 144C/144T; Up to 108MB Cache
GPU	Max GPU Count: Up to 2 double-width or 3 single-width GPUs CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect GPU-GPU Interconnect: PCIe
System Memory	Slot Count: 8 DIMM slots Max Memory (1DPC): Up to 2TB 6400MT/s ECC DDR5 RDIMM Max Memory (1DPC): Up to 512GB 8000MT/s ECC DDR5 MRDIMM (P-core only)
Drive Bays Configuration	Default: Total 4 bays • 4 front hot-swap 2.5" NVMe* drive bays (*NVMe support may require additional storage controller and/or cables) M.2: 2 M.2 NVMe slots (M-key 2280/22110)
Expansion Slots	PCI-Express (PCIe) Configuration: Default • 2 PCIe 5.0 x16 (in x16) FHFL slots Option A* • 2 PCIe 5.0 x16 (in x16) FHFL slots • 1 PCIe 5.0 x16 (in x16) FHFL double-width slot • 1 PCIe 5.0 x16 (in x16) HHHL slot • 1 PCIe 5.0 x8 (in x8) HHHL slot Option B* • 2 PCIe 5.0 x16 (in x16) FHFL slots • 1 PCIe 5.0 x16 (in x16) HHHL slot M.2: 2 M.2 NVMe slots (M-key)
On-Board Devices	NVMe: NVMe; RAID 0/1/5/10 support(Intel® VROC RAID key required) Chipset: System on Chip Network Connectivity: 2 RJ45 10GBASE-T with Intel® X710-AT2
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port 2 RJ45 10 GbE LAN ports USB: 2 USB 3.2 Gen1 Type-A ports(rear) Video: 1 VGA port TPM: 1 TPM Onboard TPM & TPM Header

(Front View – System)

Power Button

UID Button

Status LED

4 Hot-swap Fans

Drive Bay	Description
1 — 4	4 Hot-swap 2.5" NVMe Drive Bays

(Rear View – System)

Optional Redundant 2000W
Titanium Level Power Supplies

2 USB 3.2 Gen 1 Ports
Dedicated BMC LAN Port
2 10GbE RJ45

VGA Port

Slot Description			
	Option 1 (Default)	Option 2*	Option 3*
1	---	PCIe 5.0 x16 FHFL	PCIe 5.0 x16 HHHL
2	---	---	---
3	---	PCIe 5.0 x16 HHHL	---
4	---	PCIe 5.0 x8 HHHL	---
5 6	PCIe 5.0 x16 FHFL	PCIe 5.0 x16 FHFL	PCIe 5.0 x16 FHFL

*Requires additional parts from the optional parts list and limits processor to lower TDP

System Cooling

Fans: 4x 4-PIN PWM 8cm Fan(s)
Air Shroud: 1 Air Shroud

Power Supply

1x 2000W Redundant Titanium Level (96%) power supply

System BIOS

BIOS Type: AMI 256MB SPI Flash

Management

SuperCloud Composer®; Supermicro Server Manager (SSM); Super Diagnostics Offline (SDO); Supermicro Thin-Agent Service (TAS); SuperServer Automation Assistant (SAA) New!

PC Health Monitoring

CPU: Monitors for CPU Cores, Chipset Voltages, Memory
FAN: Fans with tachometer monitoring
        Status monitor for speed control
        Pulse Width Modulated (PWM) fan connectors
Temperature: Monitoring for CPU and chassis environment
                CPU thermal trip support, PEPI

Dimensions and Weight

Weight: Gross Weight: 29 lbs (13.18 kg)
        Net Weight: 21 lbs (9.55 kg)
Available Color: Black

Operating Environment

Operating Temperature: 0°C to 40°C (32°F to 104°F)
Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)
Operating Relative Humidity: 8% to 90% (non-condensing)
Non-operating Relative Humidity: 5% to 95% (non-condensing)

Motherboard

Super X14SBM-TF

Chassis

CSE-223M2-R000RCNDP