IoT SuperServer SYS-221HE-TNRD

2U DP Hyper-E with 6 hot-swap 2.5" drive bays and DC power supplies

More details here

Key Applications

5G Core and Edge, Telecom Micro Data Center, AI Inference and Machine Learning, Network Function Virtualization, Cloud Computing,



Key Features

- Dual Socket E (LGA-4677) 5th/4th Gen Intel® Xeon® Scalable processors;
- 32 DIMM slots supporting up to 8TB of memory; RDIMMs up to DDR5-5600;
- Configurable PCIe slot options up to 8 PCIe 5.0 x8 (6 FHFL+ 2 FHHL) or 4 PCIe 5.0 x16 (3 FHFL + 1 FHHL);
- Flexible networking options with 2 AIOM networking slots (OCP NIC 3.0 compatible);
- Up to 6x 2.5" hot-swap drive bays with options to support NVMe/SATA drives;
- 6 heavy duty hot-swap fans with optimal fan speed control;
- Redundant 1300W -48V DC power supplies;

Form Factor	2U Rackmount Enclosure: 436.88 x 88.9 x 574mm (17.2" x 3.5" x 22.6") Package: 598 x 247 x 938mm (23.5" x 9.7" x 36.9")
Processor	Dual Socket E (LGA-4677) 5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable processors Supports Intel Xeon CPU Max Series with high bandwidth memory (HBM) Up to 64C/128T; Up to 320MB Cache per CPU
GPU	Max GPU Count: Up to 3 double-width or 3 single-width GPUs Supported GPU: NVIDIA PCIe: RTX A4000, RTX 6000, RTX 5000, A2 CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect GPU-GPU Interconnect: PCIe
System Memory	Slot Count: 32 DIMM slots/16 Channels Max Memory (2DPC): Up to 8TB 5600MT/s ECC DDR5 RDIMM
Drive Bays Configuration	Default: Total 6 bays • 6 front hot-swap 2.5" NVMe*/SAS*/SATA* drive bays (*NVMe/SAS/SATA support may require additional storage controller and/or cables) M.2: 2 M.2 NVMe/SATA slots (M-key 2280/22110)
Expansion Slots	Default • 3 PCIe 5.0 x16 FHFL slots • 2 PCIe 5.0 x8 FHHL slots • 2 PCIe 5.0 x16 AIOM slots (OCP 3.0 compatible) Option A • 6 PCIe 5.0 x8 FHFL slots • 2 PCIe 5.0 x8 FHHL slots • 2 PCIe 5.0 x16 AIOM slots (OCP 3.0 compatible) Option B • 3 PCIe 5.0 x16 FHFL slots • 1 PCIe 5.0 x16 FHHL slot • 2 PCIe 5.0 x16 AIOM slots (OCP 3.0 compatible)
On-Board Devices	SATA: SATA (6Gbps) ; RAID 0/1/5/10 support NVMe: NVMe; RAID 0/1/5/10 support(Intel® VROC RAID key required) Chipset: Intel® C741 Network Connectivity: 2 SFP28 25GbE with Broadcom® BCM57414 (optional) 2 QSFP28 100GbE with Broadcom® BCM57508 (optional) 2 QSFP28 100GbE with Intel® E810-CAM2 (optional) 2 QSFP28 100GbE (optional) 4 SFP+ 10GbE with Intel® X710-BM2 (optional) 2 QSFP56 200GbE (optional)

2 QSFP56 100GbE (optional)
2 RJ45 1GbE with Intel® I350-AM2 (optional)
4 SFP+ 10GbE with Intel® X710-TM4 (optional)
1 OSFP 400GbE with NVIDIA® ConnectX®-7 NDR (optional)
4 RJ45 10GbE with Intel® X550 (optional)

Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port USB: 2 USB 2.0 ports(front) Video: 1 VGA port

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(Front View – System)



Drive Bay	Description
0 – 3	2.5" Hot-swap NVMe/SATA3/SAS3* Drive Bays (NVMe from CPU1)
4 – 5	2.5" Hot-swap NVMe/SATA3/SAS3* Drive Bays (NVMe from CPU2)

*SAS3 support requires additional parts from the optional parts list

(Rear View – System)



	Slot Description	
	Optional 1	Optional 2
1	PCIe 5.0 x16 (FHFL)	PCIe 5.0 x8 (FHFL)
2	---	PCIe 5.0 x8 (FHFL)
3	PCIe 5.0 x16 (FHFL)	PCIe 5.0 x8 (FHFL)
4	---	PCIe 5.0 x8 (FHFL)

	Slot Description		
	Optional 1	Optional 2	Optional 3
5	PCIe 5.0 x16 (FHFL)	PCIe 5.0 x8 (FHFL)	PCIe 5.0 x16 (FHFL)
6	---	PCIe 5.0 x8 (FHFL)	---
7	PCIe 5.0 x8 (FHHL)	PCIe 5.0 x8 (FHHL)	PCIe 5.0 x16 (FHHL)
8	PCIe 5.0 x8 (FHHL)	PCIe 5.0 x8 (FHHL)	---

	Slot Description
A2	AIOM/OCP NIC 3.0 (optional)
A1	AIOM/OCP NIC 3.0

CPU1 CPU2

System Cooling	Fans: 6 Counter-rotating, Hot-swappable 6cm Fan(s)
Power Supply	2x 1300W Redundant power supplies
System BIOS	BIOS Type: AMI 256MB SPI Flash
Management	SuperCloud Composer; Supermicro Server Manager (SSM); Supermicro Update Manager (SUM); Supermicro SuperDoctor® 5 (SD5); 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 Thermal Control for fan connectors
Dimensions and Weight	Weight: Gross Weight: 47.4 lbs (21.5 kg) Net Weight: 34.4 lbs (15.6 kg) Available Color: Silver
Operating Environment	Operating Temperature: 0°C ~ 35°C (32°F ~ 95°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 X13DEM**
Chassis	**CSE-HE211-R000NFP**

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