

IoT SuperServer SYS-221HE-FTNRD

X13 DP 2U Short-depth front I/O System with 6 NVMe/SATA bays and redundant DC PSU



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 60C/120T; Up to 112.5MB Cache per CPU
GPU	Max GPU Count: Up to 3 double-width or 3 single-width GPU(s) Supported GPU: NVIDIA PCIe: H100, L40, L40S, A40, A2, A10 Intel PCIe: Intel Data Center GPU Flex 170 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 bay(s) <ul style="list-style-type: none"> • 6 front hot-swap 2.5" NVMe/SAS*/SATA drive bay(s) (*SAS support may require additional storage controller and/or cables, please see the optional parts list for details) M.2: 2 M.2 NVMe/SATA slot(s) (M-key 2280/22110)
Expansion Slots	Default <ul style="list-style-type: none"> • 3 PCIe 5.0 x16 FHFL slot(s) • 2 PCIe 5.0 x8 FHHL slot(s) • 2 PCIe 5.0 x16 AIOM slot(s) (OCP 3.0 compatible) Option A <ul style="list-style-type: none"> • 6 PCIe 5.0 x8 FHFL slot(s) • 2 PCIe 5.0 x8 FHHL slot(s) • 2 PCIe 5.0 x16 AIOM slot(s) (OCP 3.0 compatible) Option B <ul style="list-style-type: none"> • 3 PCIe 5.0 x16 FHFL slot(s) • 1 PCIe 5.0 x16 FHHL slot(s) • 2 PCIe 5.0 x16 AIOM slot(s) (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)
IPMI: Support for Intelligent Platform Management Interface v.2.0
IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

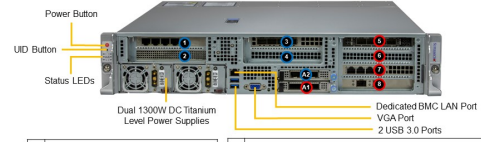
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port(s) USB: 2 USB 2.0 port(s) (front) Video: 1 VGA port(s)
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(Rear View – System)



Slot	Description
1-3	2.5" Hot-swap NVMe/SATA3 Drive Bays (NVMe from CPU1)
4-6	2.5" Hot-swap NVMe/SATA3 Drive Bays (NVMe from CPU2)

(Front View – System)



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

Slot Description	
7	AOM / OCP MC 3.0 Slot
8	AOM / OCP MC 3.0 Slot

*For slot 1-4 Option 1 config, two optional cables are required to replace existing cables.
 **For slot 5-6 Option 2 config, switching from 2U R3C to optional 2U R3C is required.



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); SuperDoctor® 5; Super Diagnostics Offline ; TAS: Supermicro Thin-Agent Service (TAS); SAA(new!); IPMICFG; SMCIPMITool; IPMIView
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