

# IoT SuperServer SYS-220HE-FTNR

2U Hyper with 6 NVMe/SATA bays



More details here

## Key Applications

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

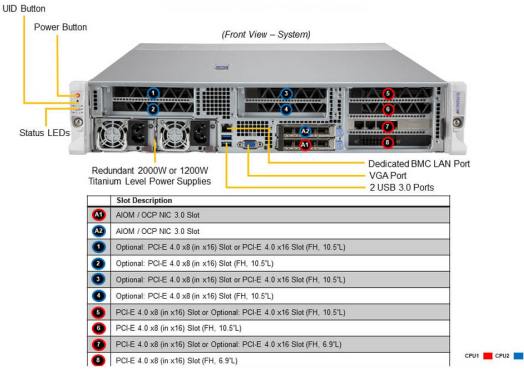
## Key Features

- Dual Socket P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable Processors;
- 32 DIMM Slots; Up to 8TB DRAM; Up to 8TB Intel® Optane™ Persistent Memory (up to 12TB with DRAM); 3200/2933/2666 ECC DDR4 LRDIMM; RDIMM; Intel® Optane™ Persistent Memory 200 series;
- 3 PCIe 4.0 x16 slots with GPU/Accelerator support (Default); 1 PCIe 4.0 x16 expansion slots (Optional);
- 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 Front I/O, tool-less design;
- Redundant 2000W redundant AC power supplies;



|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form Factor              | 2U Rackmount<br>Enclosure: 436.88 x 88.9 x 574mm (17.2" x 3.5" x 22.6")<br>Package: 598 x 247 x 938mm (23.5" x 9.7" x 36.9")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Processor                | Dual Socket P+ (LGA-4189)<br>3rd Gen Intel® Xeon® Scalable processors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| GPU                      | Max GPU Count: Up to 3 double-width or 3 single-width GPUs<br>Supported GPU: NVIDIA PCIe: T4, A40, A100, A10<br>CPU-GPU Interconnect: PCIe 4.0 x16 CPU-to-GPU Interconnect                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| System Memory            | Slot Count: 32 DIMM slots<br>Max Memory (2DPC): Up to 8TB 3200MT/s ECC DDR4 RDIMM/LRDIMM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Drive Bays Configuration | Default: Total 6 bays <ul style="list-style-type: none"> <li>• 6 front hot-swap 2.5" NVMe/SAS/SATA drive bays</li> </ul> M.2: 2 M.2 NVMe/SATA slots (M-key 2280/22110)                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Expansion Slots          | Default <ul style="list-style-type: none"> <li>• 3 PCIe 4.0 x16 FHFL slots</li> <li>• 1 PCIe 4.0 x16 FHHL slot</li> </ul> Option A <ul style="list-style-type: none"> <li>• 6 PCIe 4.0 x8 (in x16) FHFL slots</li> <li>• 2 PCIe 4.0 x8 (in x16) FHHL slots</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                |
| On-Board Devices         | SATA: SATA (6Gbps) ; RAID 0/1/5/10 support<br>NVMe: NVMe; RAID 0/1/5/10 support(Intel® VROC RAID key required)<br>Chipset: Intel® C621A<br>Network Connectivity: 2 RJ45 1GbE with Intel® I350-AM2 (optional)<br>4 SFP 1GbE with Intel® I350-AM4 (optional)<br>2 RJ45 10GBASE-T with Intel® X550-AT2 (optional)<br>2 SFP+ 10GbE with Intel® X710-BM2 (optional)<br>4 SFP+ 10GbE with Intel® XL710-BM1 (optional)<br>4 SFP+ 10GbE with Intel® X710-TM4 (optional)<br>2 SFP28 25GbE with Broadcom® BCM57414 (optional)<br>4 SFP28 25GbE (optional)<br>2 QSFP28 100GbE with Broadcom® BCM57508 (optional)<br>4 RJ45 1GbE with Intel® I350-AM4 (optional) |
| Input / Output           | LAN: 1 RJ45 1 GbE Dedicated BMC LAN port<br>USB: 2 USB 2.0 ports(front)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |





| Slot | Description                                                          |
|------|----------------------------------------------------------------------|
| 1    | AIO / OCP NIC 3.0 Slot                                               |
| 2    | AIO / OCP NIC 3.0 Slot                                               |
| 3    | Optional: PCIe 4.0 x8 (in x16) Slot or PCIe 4.0 x16 Slot (FH, 10.5L) |
| 4    | Optional: PCIe 4.0 x8 (in x16) Slot (FH, 10.5L)                      |
| 5    | Optional: PCIe 4.0 x8 (in x16) Slot or PCIe 4.0 x16 Slot (FH, 10.5L) |
| 6    | Optional: PCIe 4.0 x8 (in x16) Slot (FH, 10.5L)                      |
| 7    | PCIe 4.0 x8 (in x16) Slot or Optional: PCIe 4.0 x16 Slot (FH, 10.5L) |
| 8    | PCIe 4.0 x8 (in x16) Slot (FH, 10.5L)                                |
| 9    | PCIe 4.0 x8 (in x16) Slot or Optional: PCIe 4.0 x16 Slot (FH, 6.9L)  |
| 10   | PCIe 4.0 x8 (in x16) Slot (FH, 6.9L)                                 |

CPU1 CPU2

(Rear View – System)



| Slot  | Description                                                 |
|-------|-------------------------------------------------------------|
| 1 - 3 | 2.5" Hot-swap NVMe/SAS3/SATA3 Drive Bays (NVMe from CPU1)** |
| 4 - 6 | 2.5" Hot-swap NVMe/SAS3/SATA3 Drive Bays (NVMe from CPU2)** |

\*\*SAS3 support requires additional parts in optional parts list

|                       |                                                                                                                                                                                                                                                                                  |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System Cooling        | Fans: 6 Counter-rotating, Hot-swappable 60x60x56mm Fan(s)                                                                                                                                                                                                                        |
| Power Supply          | 1x 2000W Redundant Titanium (certification pending) Level (96%) power supply                                                                                                                                                                                                     |
| 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<br>FAN: Fans with tachometer monitoring<br>Status monitor for speed control<br>Pulse Width Modulated (PWM) fan connectors<br>Temperature: Monitoring for CPU and chassis environment<br>Thermal Control for fan connectors |
| Dimensions and Weight | Weight: Gross Weight: 47.4 lbs (21.5 kg)<br>Net Weight: 34.4 lbs (15.6 kg)<br>Available Color: Silver                                                                                                                                                                            |
| Operating Environment | Operating Temperature: 5°C ~ 35°C (41°F ~ 95°F)<br>Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)<br>Operating Relative Humidity: 8% to 90% (non-condensing)<br>Non-operating Relative Humidity: 5% to 95% (non-condensing)                                           |
| Motherboard           | <a href="#">Super X12DHM-6</a>                                                                                                                                                                                                                                                   |
| Chassis               | CSE-HE211-R000NFP                                                                                                                                                                                                                                                                |