# Hyper SuperServer SYS-121H-TNR

1U Hyper with 8 hot-swap 2.5" NVMe/SAS/SATA bays and 3 PCIe 5.0 x16 + 1 PCIe 5.0 x16 AIOM slot

More details here

## Key Applications

Virtualization, Software-defined Storage, AI Inference and Machine Learning, Cloud Computing, Enterprise Server,

## 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;
- 3 PCIe 5.0 x16 slots with support for GPU/Accelerator cards;
- Flexible networking options with 1 AIOM networking slot (OCP NIC 3.0 compatible);
- 8x 2.5" hot-swap NVMe/SATA/SAS drive bays; Optional 4x 2.5" hot-swap NVMe/SAS/SATA drive bays; 2x internal M.2 NVMe/SATA drive slots; Optional RAID support via storage add-on card;
- 8 heavy duty hot-swap fans with optimal fan speed control;

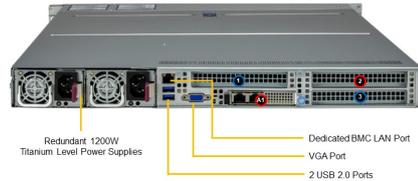| | |
|---|---|
| **Form Factor** | 1U Rackmount<br>Enclosure: 437 x 43 x 747mm (17.2" x 1.7" x 29.4")<br>Package: 605 x 206 x 1032mm (23.8" x 8.1" x 40.6") |
| **Processor** | Dual Socket E (LGA-4677)<br>5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable processors<br>Supports Intel Xeon CPU Max Series with high bandwidth memory (HBM)<br>Up to 64C/128T; Up to 320MB Cache per CPU |
| **GPU** | Max GPU Count: Up to 1 double-width or 3 single-width GPUs<br>Supported GPU: NVIDIA PCIe: H100, L4, L40S, RTX A4000, RTX A5000 |
| **System Memory** | Slot Count: 32 DIMM slots<br>Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 RDIMM<br>Max Memory (2DPC): Up to 8TB 4400MT/s ECC DDR5 RDIMM |
| **Drive Bays Configuration** | Default: Total 8 bays<br>• 8 front hot-swap 2.5" NVMe*/SAS*/SATA* drive bays<br>Option A: Total 12 bays<br>• 12 front hot-swap 2.5" NVMe*/SAS*/SATA* drive bays<br>(*NVMe/SAS/SATA support may require additional storage controller and/or cables, please see the optional parts list for details)<br>M.2: 2 M.2 NVMe/SATA slots (M-key 2280/22110) |
| **Expansion Slots** | PCI-Express (PCIe) Configuration: Default<br>    • 1 PCIe 5.0 x16 FHHL slot<br>    • 2 PCIe 5.0 x16 FH/10.5"L slots<br>    • 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)<br>M.2: 2 M.2 NVMe/SATA slots (B+M-key 2280/22110) |
| **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® C741<br>Network Connectivity: Via AIOM |
| **Input / Output** | LAN: 1 RJ45 1 GbE Dedicated BMC LAN port<br>USB: 2 USB 2.0 ports(rear)<br>      1 USB 3.0 port(front)<br>Video: 1 VGA port |

*(Front View – System)*

Status LEDs
UID Button
USB 3.1 Port
Power Button
Storage / I/O Bays

| Slot | Description |
|---|---|
| 0 – 3 | 2.5" Hot-swap NVMe/SAS3/SATA3 Drive Bays (NVMe from CPU1)* |
| 4 – 7 | 2.5" Hot-swap NVMe/SAS3/SATA3 Drive Bays (NVMe from CPU2)* |

*NVMe, SAS3 or SATA3 support requires additional parts from the optional parts list

*(Rear View – System)*

Redundant 1200W
Titanium Level Power Supplies
Dedicated BMC LAN Port
VGA Port
2 USB 2.0 Ports

| Slot Description | |
|---|---|
| A1 | AIOM / OCP 3.0 NIC slot |
| 1 | PCIe 5.0 x16 slot (FH, 6.6"L) |
| 2 | PCIe 5.0 x16 slot (FH, 10.5"L) |
| 3 | PCIe 5.0 x16 slot (FH, 10.5"L) |

CPU1 ■ CPU2 ■

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**System Cooling**

Fans: Up to 8 counter-rotating 40x40x56mm Fan(s)
Air Shroud: 2 Air Shrouds
Liquid Cooling: Direct to Chip (D2C) Cold Plate (optional)

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**Power Supply**

2x 1200W Redundant Titanium Level (96%) Hot-plug power supplies

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**System BIOS**

BIOS Type: AMI 64MB SPI Flash

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**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!

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**PC Health Monitoring**

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

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**Dimensions and Weight**

Weight: Gross Weight: 49 lbs (22.2 kg)
        Net Weight: 34 lbs (15.4 kg)
Available Color: N/A

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**Operating Environment**

Name: A2
Operating Temperature: 10°C to 35°C (50°F to 95°F)
Non-operating Temperature: -30°C to 60°C (-40°F to 140°F)
Operating Relative Humidity: 8% to 80% (max 21° DP; non-condensing)
Non-operating Relative Humidity: 8% to 90% (max 38° DP; non-condensing)

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**Motherboard**

**Super X13DEM**

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**Chassis**

**CSE-HS119-R1K24P2**

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