

Hyper SuperServer SYS-621H-TN12R

2U Hyper with 12 hot-swap 3.5" NVMe/SAS/SATA bays and 4 PCIe 5.0 x16 slots + up to 2 PCIe 5.0 x16 AIOM slots



[More details here](#)

Key Applications

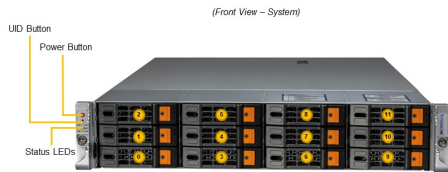
Virtualization, Software-defined Storage, AI Inference and Machine Learning,
Cloud Computing, Enterprise Server,

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;
- Optional PCIe slot configurations up to 8 PCIe 5.0 x8 or 4 PCIe 5.0 x16 slots with support for double-width GPU/Accelerator cards;
- Flexible networking options with up to 2 AIOM networking slots (OCP NIC 3.0 compatible);
- 4 heavy duty hot-swap fans with optimal fan speed control;



Form Factor	2U Rackmount Enclosure: 437 x 88.9 x 803mm (17.2" x 3.5" x 31.6") Package: 605 x 263 x 1107mm (23.8" x 10.4" x 43.6")
Processor	Dual processor(s) Up to 64C/128T; Up to 320MB Cache per CPU
GPU	Max GPU Count: Up to 4 double-width or 8 single-width GPUs Supported GPU: NVIDIA PCIe: H100, L40, L40S, L4, A40, A16, A100
System Memory	Slot Count: 32 DIMM slots Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 RDIMM Max Memory (2DPC): Up to 8TB 4400MT/s ECC DDR5 RDIMM
Drive Bays Configuration	Default: Total 12 bays <ul style="list-style-type: none"> • 12 front hot-swap 3.5" 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	PCI-Express (PCIe) Configuration: Option A* <ul style="list-style-type: none"> • 4 PCIe 5.0 x16 (in x16) FH/10.5"L double-width slots • 2 PCIe 5.0 x16 AIOM slots (OCP 3.0 compatible) Option B* <ul style="list-style-type: none"> • 8 PCIe 5.0 x8 (in x16) HH/10.5"L slots • 2 PCIe 5.0 x16 AIOM slots (OCP 3.0 compatible) 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 NVMe: NVMe; RAID 0/1/5/10 support(Intel® VROC RAID key required) Chipset: Intel® C741 Network Connectivity: Via AIOM
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port USB: 2 USB 2.0 ports(rear) 2 USB 3.2 Gen1 ports(Header) Video: 1 VGA port



Slot	Description
1	3.5" or 2.5" Hot-swap NVMe/SAS/SATA3 Drive Bays (NVMe from CPU1)
2	3.5" or 2.5" Hot-swap NVMe/SAS/SATA3 Drive Bays (NVMe from CPU2)

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



Slot Description	Option 1	Option 2	Option 3
Option 1	PCIe 5.0 x8 (m x16)	PCIe 5.0 x16	2x Hot-Swap 2.5" NVMe Drive Bays (CPU 2)
Option 2	PCIe 5.0 x8 (m x16)	—	—
Option 3	—	—	—
Slot Description	Option 1	Option 2	Option 3
Option 1	PCIe 5.0 x8 (m x16)	PCIe 5.0 x16	2x Hot-Swap 2.5" NVMe Drive Bays (CPU 2)
Option 2	PCIe 5.0 x8 (m x16)	—	—
Option 3	—	—	—
Slot Description	AOM / OCP NIC 3.0 Slot		
Option 1	(Optional) AOM / OCP NIC 3.0 Slot		

Requires additional parts in optional parts list
Not available if front drive bays are using an NVMe configuration

CPU1 CPU2

System Cooling

Fans: 4x 8cm heavy duty fans with optimal fan speed control
Air Shroud: 2 Air Shrouds
Liquid Cooling: Direct to Chip (D2C) Cold Plate (optional)

Power Supply

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

System BIOS

BIOS Type: AMI 64MB 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: 63 lbs (28.6 kg)
Net Weight: 37 lbs (16.8 kg)
Available Color: N/A

Operating Environment

Operating Temperature: 10°C to 35°C (50°F to 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-HS829-R1K24P