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 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 4 double-width or 8 single-width GPUs Supported GPU: NVIDIA PCIe: H100, A100, A16, A40, L4, L40, L40S
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 • 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* • 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* • 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) 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

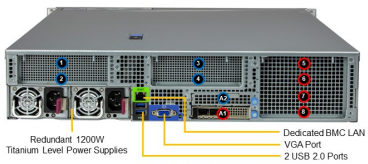
©2026 Copyright Super Micro Computer, Inc. All rights reserved. *Product specifications may change without notice

(Front View – System)

Slot	Description
1 – 5	3.5" or 2.5" Hot-swap NVMe/SAS3/SATA3 Drive Bays (NVMe from CPU1)[1]
6 – 10	3.5" or 2.5" Hot-swap NVMe/SAS3/SATA3 Drive Bays (NVMe from CPU2)[1]

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

(Rear View – System)



Slot Description			
	Option 1[1]	Option 2[1]	Option 3[1,2]
1	PCIe 5.0 x8 (in x16)	PCIe 5.0 x16	2x Hot-Swap 2.5" NVMe Drive Bays (CPU 2)
2	PCIe 5.0 x8 (in x16)	---	

Slot Description			
	Option 1[1]	Option 2[1]	Option 3[1,2]
3	PCIe 5.0 x8 (in x16)	PCIe 5.0 x16	2x Hot-Swap 2.5" NVMe Drive Bays (CPU 2)
4	PCIe 5.0 x8 (in x16)	---	

Slot Description			
	Option 1[1]	Option 2[1]	Option 3[1]
5	PCIe 5.0 x8 (in x16)	PCIe 5.0 x16	PCIe 5.0 x16
6	PCIe 5.0 x8 (in x16)	---	---
7	PCIe 5.0 x8 (in x16)	PCIe 5.0 x16	PCIe 5.0 x16
8	PCIe 5.0 x8 (in x16)	PCIe 5.0 x8 (in x16)	---

Slot Description	
AM	AIOM / OCP NIC 3.0 Slot
A2	(Optional) AIOM / OCP NIC 3.0 Slot[1]

CPU1 CPU2

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

System Cooling	Fans: Up to 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 Pulse Width Modulated (PWM) fan connectors Status monitor for speed control 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	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)
Motherboard	**Super X13DEM**
Chassis	**CSE-HS829-R1K24P**

©2026 Copyright Super Micro Computer, Inc. All rights reserved. *Product specifications may change without notice