

GPU SuperServer SYS-821GE-TNHR

DP Intel 8U System with NVIDIA HGX H100/H200 8-GPU and Rear I/O



[More details here](#)

Key Applications

High Performance Computing, AI/Deep Learning Training, Industrial Automation, Retail, Healthcare, Conversational AI, Business Intelligence & Analytics, Drug Discovery, Climate and Weather Modeling, Finance & Economics,

Key Features

- 5th/4th Gen Intel® Xeon® Scalable processor support;
- Support for NVIDIA HGX™ H100/H200 8-GPU;
- 32 DIMM slots Up to 8TB: 32x 256 GB DRAM Memory Type: 5600MTs ECC DDR5;
- 8 PCIe Gen 5.0 X16 LP
2 PCIe Gen 5.0 X16 FHHL Slots, 2 PCIe Gen 5.0 X16 FHHL Slots (optional);
- Flexible networking options;
- 2 M.2 NVMe for boot drive only
16x 2.5" Hot-swap NVMe drive bays (12x by default, 4x optional)
3x 2.5" Hot-swap SATA drive bays
Optional: 8x 2.5" Hot-swap SATA drive bays;
- 10 heavy duty fans with optimal fan speed control;
- Optional: 8x 3000W (4+4) Redundant Power Supplies, Titanium Level;
6x 3000W (4+2) Redundant Power Supplies, Titanium Level;

Form Factor

8U Rackmount
Enclosure: 437 x 355.6 x 843.28mm (17.2" x 14" x 33.2")
Package: 698 x 750 x 1300mm (27.5" x 29.5" x 51.2")

Processor

Dual Socket E (LGA-4677)
5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable processors
Up to 64C/128T; Up to 320MB Cache per CPU

GPU

Max GPU Count: 8 onboard GPUs
Supported GPU: NVIDIA SXM: HGX H100 8-GPU (80GB), HGX H200 8-GPU (141GB)
CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect
GPU-GPU Interconnect: NVIDIA® NVLink® with NVSwitch™

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 15 bays

- 12 front hot-swap 2.5" NVMe drive bays
- 3 front hot-swap 2.5" SATA drive bays

Option A: Total 19 bays

- 12 front hot-swap 2.5" NVMe drive bays
- 4 front hot-swap 2.5" NVMe* drive bays
- 3 front hot-swap 2.5" SATA drive bays

(*NVMe support may require additional storage controller and/or cables, please see the optional parts list for details)

M.2: 2 M.2 NVMe slots (M-key)

Expansion Slots

Default

- 8 PCIe 5.0 x16 LP slots
- 2 PCIe 5.0 x16 FHHL slots

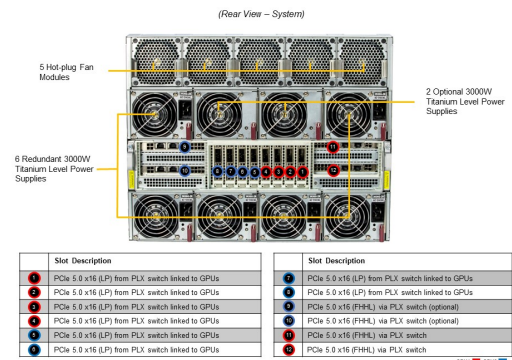
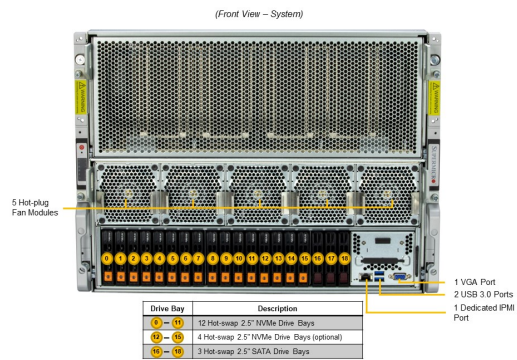
Option A

- 2 PCIe 5.0 x16 FHHL slots

On-Board Devices

Chipset: Intel® C741
Network Connectivity: 2 RJ45 10GbE with Intel® X550-AT2 (optional)
2 SFP28 25GbE with Broadcom® BCM57414 (optional)
2 RJ45 10GbE with Intel® X710-AT2 (optional)





System Cooling	Fans: 10 heavy duty fans with optimal fan speed control
Power Supply	6x 3000W Redundant (3 + 3) Titanium Level (96%) power supplies
System BIOS	BIOS Type: AMI 32MB SPI Flash EEPROM
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 8+4 Phase-switching voltage regulator 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: 225 lbs (102.1 kg) Net Weight: 166 lbs (75.3 kg) Available Color: Black front & silver body
Operating Environment	Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -40°C to 60°C (-40°F to 140°F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5% to 95% (non-condensing)
Motherboard	<u>Super X13DEG-OAD</u>
Chassis	CSE-GP801TS