

GPU SuperServer SYS-821GE-TNHR

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



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;
- 32 DIMM slots Up to 8TB: 32x 256 GB DRAM Memory Type: 5600MTs ECC DDR5;
- 8 PCle 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;



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: Up to 8 onboard GPU(s)
	Supported GPU: NVIDIA SXM: HGX H100 8-GPU (80GB)
	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 bay(s)
	• 12 front hot-swap 2.5" NVMe drive bay(s)
	• 3 front hot-swap 2.5" SATA drive bay(s)
	Option A: Total 19 bay(s)
	• 12 front hot-swap 2.5" NVMe drive bay(s)
	• 4 front hot-swap 2.5" NVMe* drive bay(s)
	• 3 front hot-swap 2.5" SATA drive bay(s)
	(*NVMe support may require additional storage controller and/or cables, please see the optional parts list for details)

Expansion Slots

Default

8 PCle 5.0 x16 LP slot(s)2 PCle 5.0 x16 FHHL slot(s)

M.2: 2 M.2 NVMe slot(s) (M-key)

On-Board Devices

Chipset: Intel® C741

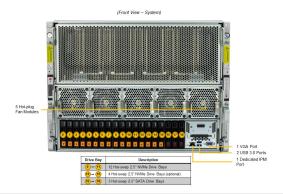
Network Connectivity: 2 RJ45 10GbE with Intel® X550-AT2 (optional)

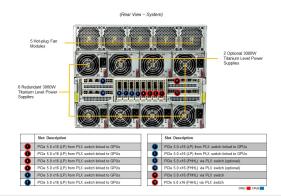
2 SFP28 25GbE with Broadcom® BCM57414 (optional) 2 RJ45 10GbE with Intel® X710-AT2 (optional)

Input / Output

1 VGA port(s)







System Cooling	Fans: 10 heavy duty fans with optimal fan speed control
	Liquid Cooling: Direct to Chip (D2C) Cold Plate (optional)
Power Supply	6x 3000W Redundant Titanium Level power supplies
System BIOS	BIOS Type: AMI 32MB SPI Flash EEPROM
Management	SuperCloud Composer; Supermicro Server Manager (SSM); Supermicro Update Manager (SUM); SuperDoctor® 5; Super Diagnostics Offline; TAS: Supermicro Thin-Agent Service (TAS); 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 ~ 35°C (50°F ~ 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	Super X13DEG-OAD
Chassis	CSE-GP801TS