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, Healthcare, Conversational AI, Business Intelligence & Analytics, Drug Discovery, Climate and Weather Modeling, Finance & Economics,

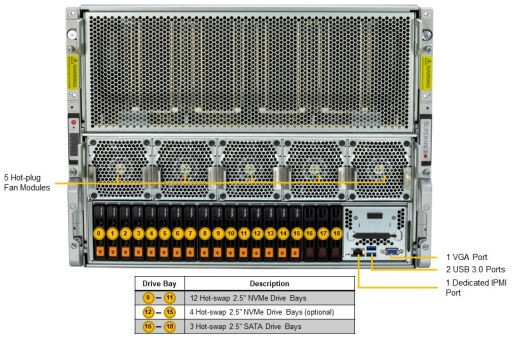
Key Features

- 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)

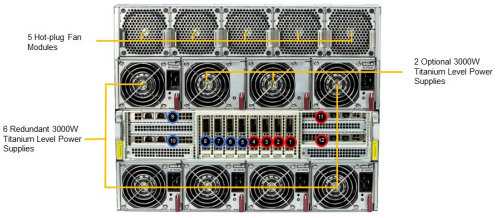
Input / Output	Video: 1 VGA port TPM: 1 TPM header

(Front View – System)



Drive Bay	Description
0 – 11	12 Hot-swap 2.5" NVMe Drive Bays
12 – 15	4 Hot-swap 2.5" NVMe Drive Bays (optional)
16 – 18	3 Hot-swap 2.5" SATA Drive Bays

(Rear View – System)



	Slot Description
1	PCIe 5.0 x16 (LP) from PLX switch linked to GPUs
2	PCIe 5.0 x16 (LP) from PLX switch linked to GPUs
3	PCIe 5.0 x16 (LP) from PLX switch linked to GPUs
4	PCIe 5.0 x16 (LP) from PLX switch linked to GPUs
5	PCIe 5.0 x16 (LP) from PLX switch linked to GPUs
6	PCIe 5.0 x16 (LP) from PLX switch linked to GPUs

	Slot Description
7	PCIe 5.0 x16 (LP) from PLX switch linked to GPUs
8	PCIe 5.0 x16 (LP) from PLX switch linked to GPUs
9	PCIe 5.0 x16 (FHHL) via PLX switch (optional)
10	PCIe 5.0 x16 (FHHL) via PLX switch (optional)
11	PCIe 5.0 x16 (FHHL) via PLX switch
12	PCIe 5.0 x16 (FHHL) via PLX switch

CPU1 CPU2

System Cooling	Fans: Up to 10 heavy duty fans with optimal fan speed control
Power Supply	6x 3000W Redundant (4 + 2) 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: 8+4 Phase-switching voltage regulator 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: 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	**Super X13DEG-OAD**
Chassis	**CSE-GP801TS**