GPU SuperServer SYS-221GE-NR

DP Intel 2U PCIe GPU System with up to 4 NVIDIA H100, H100 NVL, or L40S

Key Applications

High Performance Computing, AI/Deep Learning Training, Large Language Model (LLM) Natural Language Processing,
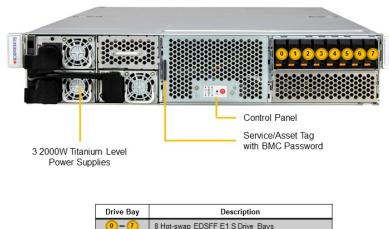
Key Features

- High density 2U GPU system with up to 4 NVIDIA® PCIe GPUs Highest GPU communication using NVIDIA® NVLINK™ using PCIe-based H100 NVL with NVLink Support;
- 5th/4th Gen Intel® Xeon® Scalable processor support;
- 32 DIMM slots Up to 8TB: 32x 256 GB DRAM Memory Type: 5600MTs ECC DDR5;
- 7 PCIe 5.0 x16 FHFL Slots;
- NVIDIA BlueField-3 Data Processing Unit Support for the most demanding accelerated computing workloads.;
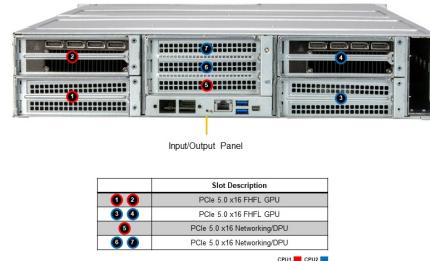- 8 E1.S NVMe Storage Support;

Form Factor	2U Rackmount Enclosure: 438.4 x 88 x 900mm (17.25" x 3.46" x 35.43") Package: (22.5" x 11" x 45.5")
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 4 double-width GPUs Supported GPU: NVIDIA PCIe: H100 NVL, H100, L40, L40S CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect GPU-GPU Interconnect: NVIDIA® NVLink™ Bridge (optional)
System Memory	Slot Count: 32 DIMM slots Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 Max Memory (2DPC): Up to 8TB 4400MT/s ECC DDR5
Drive Bays Configuration	Default: Total 8 bays • 8 front hot-swap E1.S NVMe drive bays M.2: 2 M.2 NVMe/SATA slots (M-key)
Expansion Slots	Default • 4 PCIe 5.0 x16 FHFL double-width slots • 3 PCIe 5.0 x16 FHFL slots
On-Board Devices	Chipset: Intel® C741 Network Connectivity: 1 RJ45 1GbE IPMI: Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port USB: 2 ports(rear) Video: 1 mini-DP port

(Front View – System)

(Rear View – System)

3 2000W Titanium Level
Power Supplies

Control Panel

Service/Asset Tag
with BMC Password

Drive Bay	Description
0 — 7	8 Hot-swap EDSFF E1.S Drive Bays

Input/Output Panel

Slot Description		
1 2	PCIe 5.0 x16 FHFL GPU	
3 4	PCIe 5.0 x16 FHFL GPU	
5	PCIe 5.0 x16 Networking/DPU	
6 7	PCIe 5.0 x16 Networking/DPU	

CPU1 ■ CPU2 ■

System Cooling	Fans: Up to 6x 6cm heavy duty fans with optimal fan speed control Air Shroud: 1 Air Shroud
Power Supply	3x 2000W Redundant Titanium Level (96%) power supplies
System BIOS	BIOS Type: AMI 32MB SPI Flash EEPROM
Management	Redfish API; Supermicro Server Manager (SSM); Supermicro Power Manager (SPM); Supermicro SuperDoctor® 5 (SD5); KVM with dedicated LAN ; IPMI 2.0; OOB Management Package (SFT-OOB-LIC); SMCIPMITool; IPMIView
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: 86.5 lbs (39.2 kg) 　　Net Weight: 67.5 lbs (30.6 kg) Available Color: Black front & silver body
Operating Environment	Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -30°C to 60°C (-22°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 X13DEH**
Chassis	**CSE-GP201TS-R000NP**