AI Training SuperServer SYS-420GH-TNGR

4U AI Training System with 8 Habana® Gaudi® Deep Learning Processors and dual 3rd Gen Intel® Xeon® Scalable Processors
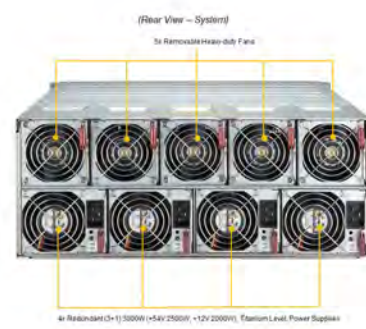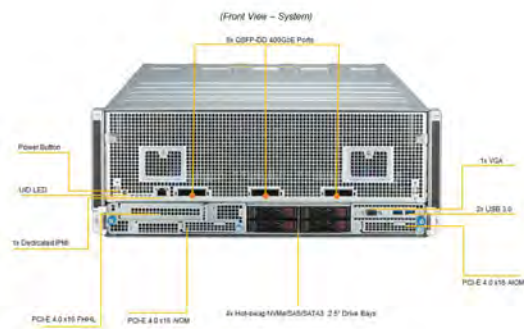
Key Applications

Computer Vision, Natural Language Processing, Recommendation , Purpose Built for AI/Deep Learning Training ,

Key Features

- Dual Intel® Xeon® Scalable Processors (Ice Lake) TDP up to 270W;
- Intel® C621A Chipset;
- 32x DIMM slots, up to 8TB Registered ECC DDR4 3200MHz SDRAM;
- 1x PCIe 4.0 x16 FHHL slot plus 2x PCIe 4.0 AIOM (OCP 3.0 superset) slots;
- 24x on-board 100GbE (via 6x QSFP-DDs) for scale-out and 1x 10GbE BaseT (dedicated IPMI port);
- 4x 2.5" SAS/SATA/NVMe Hybrid Hot-Swap Bays;
- 5x Removable Heavy-Duty Fan(s);
- 4x 3000W(54V+12V)/2000W(12V) redundant, Titanium Level power supplies;

Form Factor	4U Rackmount Enclosure: 447 x 178 x 813mm (17.6" x 7" x 32") Package: 693.4 x 381 x 1254.8mm (27.3" x 15" x 49.4")
Processor	Dual Socket P+ (LG-4189) Up to 40C/80T Supports up to 270W TDP CPUs (Air Cooled)
System Memory	Memory Capacity: 32 DIMM slots Up to 8TB: 32x 256 GB DRAM Memory Type: 3200/2933/2666MHz ECC DDR4 RDIMM/LRDIMM
Drive Bays	4x 2.5" hot-swap NVMe/SATA/SAS drive bays (4x 2.5" NVMe hybrid) 2 M.2 NVMe OR 2 M.2 SATA3
Expansion Slots	1 PCIe 4.0 x16 FHFL slot(s) 2 PCIe 4.0 x16 AIOM slot(s)
On-Board Devices	Chipset: Intel® C621A Network Connectivity: 6x 400GbE QSFP-DD 1x 10GbE BaseT Note: IPMI LAN port on AI processor tray, two AIOM slots on CPU tray. 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	USB: 2 USB 3.0 port(s) (2 USB) Video: 1 VGA port(s)

(Front View – System)

(Rear View – System)

System Cooling	5 heavy duty fan(s)
Power Supply	6000W Redundant Titanium Level power supplies
System BIOS	BIOS Type: AMI 32MB SPI Flash EEPROM
Management	Redfish API; Supermicro Server Manager (SSM); Supermicro Power Manager (SPM); Supermicro Update Manager (SUM); SuperDoctor® 5; Super Diagnostics Offline ; KVM with dedicated LAN ; IPMI 2.0

PC Health Monitoring	CPU: Monitors for CPU Cores, Chipset Voltages, Memory
	    7+1 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	Height: 7" (178 mm) Width: 17.6" (447 mm) Depth: 32" (813 mm) Gross Weight: 137 lbs (62 kg) Packaging: 15" (H) x 27.3" (W) x 49.4" (D) Available Color: Silver
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 X12DPG-U6
Chassis	CSE-428G2