

# AI Training SuperServer SYS-820GH-TNR2

8U AI training platform with 8 Gaudi<sup>®</sup>2 accelerators



## Key Applications

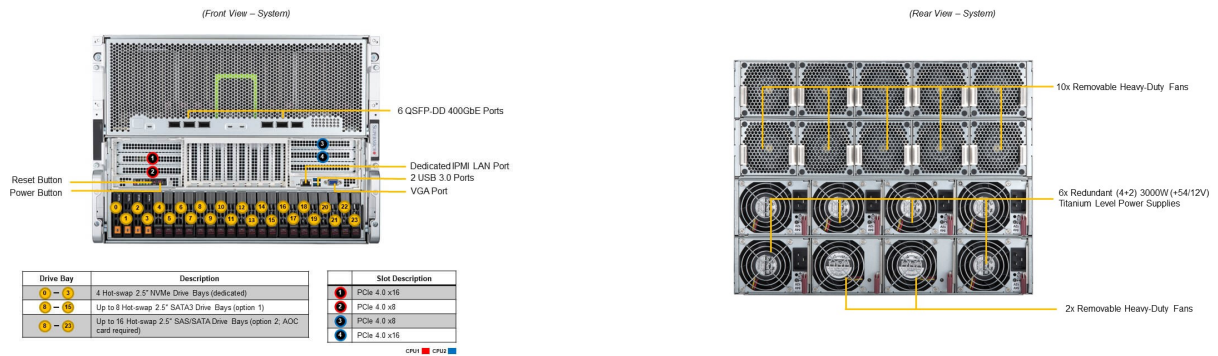
Computer Vision, Natural Language Processing, Recommendation , Purpose Built for AI/Deep Learning Training ,

## Key Features

- Dual Intel<sup>®</sup> Xeon<sup>®</sup> 3rd Gen Scalable Processors (Ice Lake) TDP up to 270W;
- Intel<sup>®</sup> C621A Chipset;
- 32x DIMM slots, up to 8TB Registered ECC DDR4 3200MHz SDRAM;
- 2x PCIe 4.0 x16 FHFL slot and 2x PCIe 4.0 x8 FHFL slot;
- 6x 400GbE QSFP-DD for scale-out and 1x 1GbE BaseT (dedicated IPMI port);
- 4x 2.5" NVMe Hot-Swap Drive Bays  
Up to 8x 2.5" SATA Hot-Swap Drive Bays  
Up to 16x 2.5" SATA Hot-Swap Drive Bays (Additional SAOC is required);
- 12x Removable Heavy-Duty FANs (Includes 2x Dummy PSU FAN);
- 6x 3000W(54V+12V) Redundant Power Supplies, Titanium Level;



<b>Form Factor</b>	8U Rackmount Enclosure: 447 x 356 x 800mm (17.6" x 14" x 31.5") Package: 1020 x 680 x 1400mm (40" x 26.8" x 55.2")
<b>Processor</b>	Dual Socket P+ (LG-4189) 3rd Gen Intel <sup>®</sup> Xeon <sup>®</sup> Scalable Processors Up to 40C/80T; Up to 60MB Cache per CPU
<b>GPU</b>	Max GPU Count: Up to 8 double-width GPUs Supported GPU: Intel OAM: Gaudi 2 CPU-GPU Interconnect: PCIe Gen4 x16 GPU-GPU Interconnect: 21x 100GbE PAM4 SerDes Links
<b>System Memory</b>	Slot Count: 32 DIMM slots Max Memory (2DPC): Up to 8TB 3200MT/s ECC DDR4 RDIMM/LRDIMM
<b>Drive Bays Configuration</b>	Default: Total 12 bays <ul style="list-style-type: none"> <li>• 4 front hot-swap 2.5" NVMe drive bays</li> <li>• 8 front hot-swap 2.5" SATA drive bays</li> </ul> Option A: Total 20 bays <ul style="list-style-type: none"> <li>• 4 front hot-swap 2.5" NVMe drive bays</li> <li>• 16 front hot-swap 2.5" SATA* drive bays</li> </ul> (*SATA support may require additional storage controller and/or cables, please see the optional parts list for details) M.2: 2 M.2 NVMe/SATA slots (M-key)
<b>Expansion Slots</b>	Default <ul style="list-style-type: none"> <li>• 2 PCIe 4.0 x16 FHFL slots</li> <li>• 2 PCIe 4.0 x8 FHFL slots</li> </ul>
<b>On-Board Devices</b>	6 QSFP-DD 400GbE 1 RJ45 1GbE
<b>Input / Output</b>	LAN: 1 RJ45 1 GbE LAN port USB: 2 USB 3.0 ports Video: 1 VGA port



**System Cooling** Fans: Up to 2 Removable Heavy-Duty 106.5 x 203.5 x 82.4mm Fan(s)  
Up to 10 Removable Heavy-Duty 80 x 80 x 80mm Fan(s)

**Power Supply** 6x 3000W Redundant 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: 7+1 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: 282 lbs (128 kg)  
Available Color: Silver

**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% (non-condensing)  
Non-operating Relative Humidity: 8% to 90% (non-condensing)

**Motherboard** [Super X12DPG-OA6-GD2](#)

**Chassis** CSE-GP802TS-R000NP