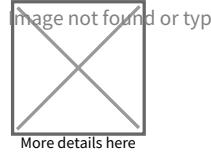


# AI Training SuperServer SYS-820GH-TNR2

8U AI training platform with 8 Gaudi®2 accelerators



## Key Applications

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

## Key Features

- Dual Intel® Xeon® 3rd Gen Scalable Processors (Ice Lake) TDP up to 270W;
- Intel® 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;



### Form Factor

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")

### Processor

Dual Socket P+ (LG-4189)  
3rd Gen Intel® Xeon® Scalable Processors  
Up to 40C/80T; Up to 60MB Cache per CPU

### GPU

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

### System Memory

Slot Count: 32 DIMM slots  
Max Memory (2DPC): Up to 8TB 3200MT/s ECC DDR4 RDIMM/LRDIMM

### Drive Bays Configuration

Default: Total 12 bays

- 4 front hot-swap 2.5" NVMe drive bays
- 8 front hot-swap 2.5" SATA drive bays

Option A: Total 20 bays

- 4 front hot-swap 2.5" NVMe drive bays
- 16 front hot-swap 2.5" SATA\* drive bays

(\*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)

### Expansion Slots

Default

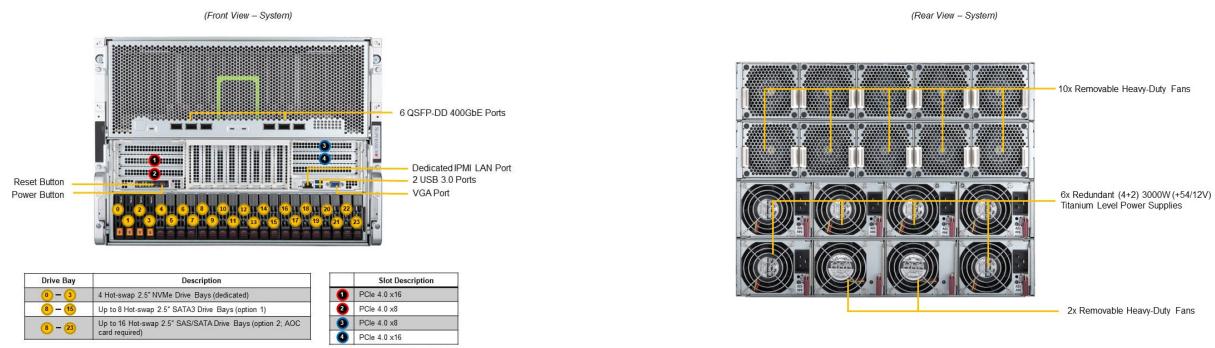
- 2 PCIe 4.0 x16 FHFL slots
- 2 PCIe 4.0 x8 FHFL slots

### On-Board Devices

Chipset: Intel® C621A  
Network Connectivity: 6 QSFP-DD 400GbE  
1 RJ45 1GbE

### Input / Output

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: 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

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