# AI Training SuperServer SYS-820GH-TNR2

8U AI training platform with 8 Gaudi®2 accelerators

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More details here

## 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<br>Enclosure: 447 x 356 x 800mm (17.6" x 14" x 31.5")<br>Package: 1020 x 680 x 1400mm (40" x 26.8" x 55.2") |
| Processor | Dual Socket P+ (LG-4189)<br>3rd Gen Intel® Xeon® Scalable Processors<br>Up to 40C/80T; Up to 60MB Cache per CPU |
| GPU | Max GPU Count: Up to 8 double-width GPU(s)<br>Supported GPU: Intel OAM: Gaudi 2<br>CPU-GPU Interconnect: PCIe Gen4 x16<br>GPU-GPU Interconnect: 21x 100GbE PAM4 SerDes Links |
| System Memory | Slot Count: 32 DIMM slots<br>Max Memory (2DPC): Up to 8TB 3200MT/s ECC DDR4 RDIMM/LRDIMM |
| Drive Bays Configuration | Default: Total 12 bay(s)<br>• 4 front hot-swap 2.5" NVMe drive bay(s)<br>• 8 front hot-swap 2.5" SATA drive bay(s)<br>Option A: Total 20 bay(s)<br>• 4 front hot-swap 2.5" NVMe drive bay(s)<br>• 16 front hot-swap 2.5" SATA* drive bay(s)<br>(*SATA support may require additional storage controller and/or cables, please see the optional parts list for details)<br>M.2: 2 M.2 NVMe/SATA slot(s) (M-key) |
| Expansion Slots | Default<br>• 2 PCIe 4.0 x16 FHFL slot(s)<br>• 2 PCIe 4.0 x8 FHFL slot(s) |
| On-Board Devices | Chipset: Intel® C621A<br>Network Connectivity: 6 QSFP-DD 400GbE<br>1 RJ45 1GbE |
| Input / Output | LAN: 1 RJ45 1 GbE LAN port(s)<br>USB: 2 USB 3.0 port(s)<br>Video: 1 VGA port(s) |

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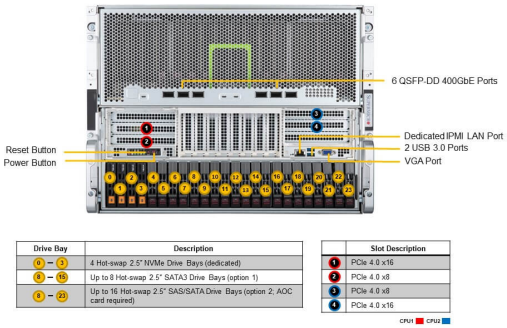
(Front View – System)

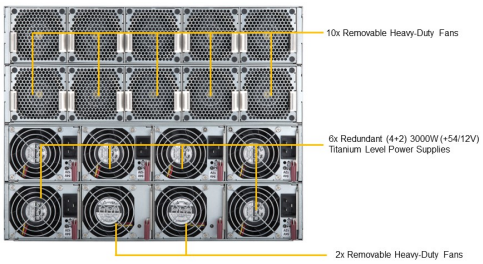



| Drive Bay | Description |
|---|---|
| 0 – 3 | 4 Hot-swap 2.5" NVMe Drive Bays (dedicated) |
| 4 – 11 | Up to 8 Hot-swap 2.5" SATA3 Drive Bays (option 1) |
| 4 – 23 | Up to 16 Hot-swap 2.5" SAS/SATA Drive Bays (option 2; AOC card required) |

| | Slot Description |
|---|---|
| 1 | PCIe 4.0 x16 |
| 2 | PCIe 4.0 x8 |
| 3 | PCIe 4.0 x8 |
| 4 | PCIe 4.0 x16 |

CPU1 CPU2

(Rear View – System)

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|---|---|
| System Cooling | Fans: 2 Removable Heavy-Duty 106.5 x 203.5 x 82.4mm Fan(s)<br>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<br>7+1 Phase-switching voltage regulator<br>FAN: Fans with tachometer monitoring<br>Status monitor for speed control<br>Pulse Width Modulated (PWM) fan connectors<br>Temperature: Monitoring for CPU and chassis environment<br>Thermal Control for fan connectors |
| Dimensions and Weight | Weight: Gross Weight: 282 lbs (128 kg)<br>Available Color: Silver |
| Operating Environment | Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)<br>Non-operating Temperature: -30°C to 60°C (-22°F to 140°F)<br>Operating Relative Humidity: 8% to 80% (non-condensing)<br>Non-operating Relative Humidity: 8% to 90% (non-condensing) |
| Motherboard | **Super X12DPG-OA6-GD2** |
| Chassis | **CSE-GP802TS-R000NP** |

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