GPU SuperServer SYS-420GU-TNXR

DP Intel Universal GPU System with NVIDIA HGX A100 4-GPU

Key Applications

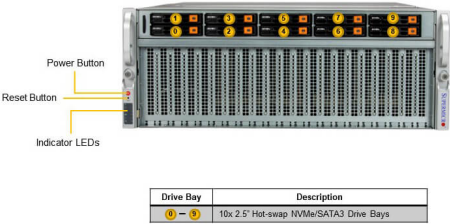High Performance Computing, AI/Deep Learning Training,

Key Features

- Dual Socket P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable Processors;
- Intel® C621A Chipset;
- 32 DIMM Slots; Up to 8TB DRAM; 3200/2933/2666 ECC DDR4 LRDIMM;RDIMM;
- Highest GPU communication using NVIDIA® NVLINK™
  Supports HGX A100 4-GPU 40GB (HBM2) or 80GB (HBM2e)
  4U system with NVIDIA® HGX™ A100 4-GPU
  6 PCIe Gen 4.0 X16 LP Slots;
- Flexible networking options;
- Up to 10x 2.5" Hot-swap NVMe/SATA drive bays
  1 M.2 NVMe/SATA via Intel® C621A PCH chipset (for boot drive only);
- 5 Hot-Swap Heavy Duty Fans with Optimal Fan Speed Control;
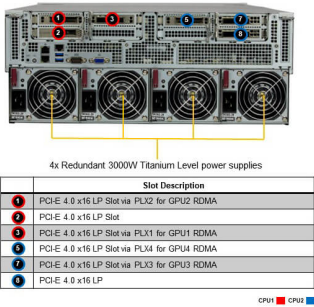- 4x 3000W redundant Titanium level power supplies;

Form Factor	4U Rackmount Enclosure: 449 x 175.6 x 833mm (17.67" x 7" x 32.79") Package: 700 x 370 x 1260mm (27.55" x 14.57" x 49.6")
Processor	Dual Socket P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable processors Up to 40C/80T; Up to 60MB Cache per CPU
GPU	Max GPU Count: Up to 4 onboard GPUs Supported GPU: NVIDIA SXM: HGX A100 4-GPU (80GB) CPU-GPU Interconnect: PCIe 4.0 x16 Switch Dual-Root GPU-GPU Interconnect: NVIDIA® NVLink®
System Memory	Slot Count: 32 DIMM slots Max Memory (2DPC): Up to 8TB 3200MT/s ECC DDR4 RDIMM/LRDIMM
Drive Bays Configuration	Default: Total 10 bays • 10 front hot-swap 2.5" NVMe/SATA drive bays M.2: 2 M.2 NVMe/SATA slots (M-key)
Expansion Slots	Default • 6 PCIe 4.0 x16 LP slots
On-Board Devices	SATA: SATA (6Gbps) ; RAID 0/1/5/10 support Chipset: Intel® C621A Network Connectivity: 2 RJ45 10GbE with Intel® X710
Input / Output	1 VGA port

(Front View – System)

(Rear View – System)

Power Button

Reset Button

Indicator LEDs

4x Redundant 3000W Titanium Level power supplies

Drive Bay	Description
0 — 9	10x 2.5" Hot-swap NVMe/SATA3 Drive Bays

	Slot Description
1	PCI-E 4.0 x16 LP Slot via PLX2 for GPU2 RDMA
2	PCI-E 4.0 x16 LP Slot
3	PCI-E 4.0 x16 LP Slot via PLX1 for GPU1 RDMA
5	PCI-E 4.0 x16 LP Slot via PLX4 for GPU4 RDMA
7	PCI-E 4.0 x16 LP Slot via PLX3 for GPU3 RDMA
8	PCI-E 4.0 x16 LP

CPU1 ■ CPU2 ■

System Cooling

Fans: 5 removable heavy-duty Fan(s)

Power Supply

4x 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: 140 lbs (64 kg)
    Net Weight: 105 lbs (48 kg)
Available Color: Black Front & Silver Body

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 X12DGU

Chassis

CSE-458GTS-R3K06P