GPU SuperServer SYS-521GE-TNRT

5U Dual Processor (5th/4th Gen Intel® Xeon) System with Support for 10 PCIe based GPUs
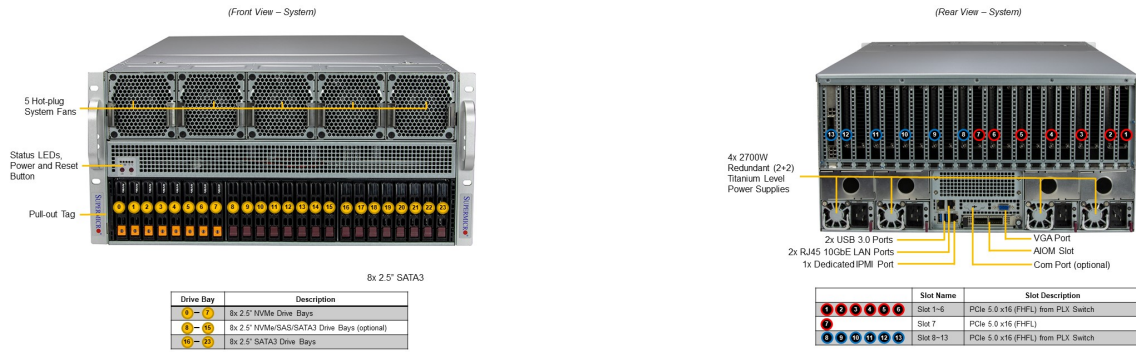
Key Applications

High Performance Computing, VDI, AI/Deep Learning Training, Media/Video Streaming, Cloud Gaming, Animation and Modeling, Design & Visualization, 3D Rendering, Diagnostic Imaging,

Key Features

- 5th/4th Gen Intel® Xeon® Scalable processor support;
- 32 DIMM slots Up to 8TB: 32x 256 GB DRAM Memory Type: 5600MTs ECC DDR5;
- AIOM/OCP 3.0 Support; 13 PCIe Gen 5.0 X16 FHFL Slots;
- 8x 2.5" Hot-swap SATA drive bays; 8x2.5" Hot-swap NVMe drive bays; 8x HOT SWAP 2.5" SATA/SAS (AOC required);
- 10 Hot-Swap Heavy Duty Fans with Optimal Fan Speed Control;
- 4x 2700W (2+2) Redundant Power Supplies, Titanium Level;

Form Factor	5U Rackmount Enclosure: 437 x 222.5 x 737mm (17.2" x 8.75" x 29") Package: (27" x 26.57" x 41")
Processor	Dual Socket E (LGA-4677) 5th Gen Intel® Xeon®/4th Gen Intel® Xeon® Scalable processors Up to 64C/128T; Up to 320MB Cache per CPU
GPU	Max GPU Count: Up to 10 double-width or 10 single-width GPU(s) Supported GPU: NVIDIA PCIe: H100,L40S,A100 CPU-GPU Interconnect: PCIe 5.0 x16 Switch Dual-Root GPU-GPU Interconnect: NVIDIA® NVLink® Bridge (optional)
System Memory	Slot Count: 32 DIMM slots Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 RDIMM Max Memory (2DPC): Up to 8TB 4400MT/s ECC DDR5 RDIMM
Drive Bays	24x 2.5" hot-swap NVMe/SATA/SAS drive bays (8x 2.5" NVMe hybrid; 8x 2.5" NVMe dedicated) 2 M.2 NVMe
Expansion Slots	12 PCIe 5.0 x16 FHFL slot(s) 1 PCIe 5.0 X16 FHFL slot(s)
On-Board Devices	Chipset: Intel® C741 Network Connectivity: 2x 10GbE BaseT with Intel® X710-AT2 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	Video: 1 VGA port(s)

(Front View – System)

5 Hot-plug
System Fans

Status LEDs,
Power and Reset
Button

Pull-out Tag

8x 2.5" SATA3

Drive Bay	Description
0 — 7	8x 2.5" NVMe Drive Bays
8 — 15	8x 2.5" NVMe/SAS/SATA3 Drive Bays (optional)
16 — 23	8x 2.5" SATA3 Drive Bays

(Rear View – System)

4x 2700W
Redundant (2+2)
Titanium Level
Power Supplies

2x USB 3.0 Ports
2x RJ45 10GbE LAN Ports
1x Dedicated IPMI Port

VGA Port
AIOM Slot
Com Port (optional)

	Slot Name	Slot Description
1 2 3 4 5 6	Slot 1~6	PCIe 5.0 x16 (FHFL) from PLX Switch
7	Slot 7	PCIe 5.0 x16 (FHFL)
8 9 10 11 12 13	Slot 8~13	PCIe 5.0 x16 (FHFL) from PLX Switch

System Cooling

Fans: 8 heavy duty fans with optimal fan speed control
Liquid Cooling: 1Direct to Chip (D2C) Cold Plate (optional)

Power Supply

2700W 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
     8+4 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: 8.75" (222.5 mm)
Width: 17.2" (437 mm)
Depth: 29" (737 mm)
Gross Weight: 100 lbs (45.3 kg)
Net Weight: 65.5 lbs (29.7 kg)
Packaging: 26.57" x 27" x 41"
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 X13DEG-OA

Chassis

CSE-528GTS-R5K40P