GPU SuperServer SYS-751GE-TNRT-NV1
Liquid-cooled AI Development Platform with NVIDIA AI Enterprise

**Key Applications**
High Performance Computing, AI/Deep Learning Training, AI Development,

**Key Features**
- Closed-loop liquid cooling for CPUs and GPUs; Acoustically optimized for quiet operation;
- 4 liquid-cooled NVIDIA A100 GPUs with NVIDIA® NVLink™ (2+2) installed;
- Dual 4th Gen Intel® Xeon® Scalable Processors, 6444Y (16 cores at 3.6GHz) installed;
- Dual-port active-cooled NVIDIA Connect-X6 Dx 25G Network Adapter installed;
- NVIDIA AI Enterprise 3 years subscription and support;
- Ubuntu 22.04 LTS installed;

**Form Factor**
- Tower or SFF Rackmount
  - Enclosure: 454.7 x 218.4 x 701mm (17.9" x 8.6" x 27.6")
  - Package: 388 x 655 x 956mm (15.3" x 25.8" x 37.6")

**Processor**
- Dual Socket E (LGA-4677)
- 4th Gen Intel® Xeon® Scalable processors
- 16C/32T; 30MB Cache per CPU

**System Memory**
- Memory Capacity: 16 DIMM slots
- 512GB: 16x 32 GB DRAM
- Memory Type: 4800MHz ECC DDR5 DRAM

**Drive Bays**
- 8x 2.5" hot-swap NVMe/SATA drive bays (2 1.92TB NVMe Drives RAID 1 (OS), 4 1.92TB NVMe Drives (Data) installed)
- 2 M.2 NVMe

**Expansion Slots**
- 7 PCIe 5.0 x16 FHFL slot(s)
  - Note: 4 NVIDIA Liquid-cooled A100 with NVIDIA NVLink™, NVIDIA Connect-X6 Dx 25G Network adapter installed

**On-Board Devices**
- SATA: SAT3 (6Gbps); RAID 0/1/5/10 support
  - Chipset: Intel® C741
  - Network Connectivity: 2x 10GbE BaseT with Intel® X550-AT2
    - 1x 1GbE BaseT with ASPEED AST2600
    - 1x 25GbE SFP28 with NVIDIA Connect-X-6 Dx
  - 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**
- SATA: 2 SuperDOM port(s)
- 2 SlimSAS port(s)
- NVMe: 4 NVMe U.2
- LAN: 2 RJ45 10GbE
  - 1 RJ45 1GbE (Dedicated IPMI port)
  - 1 SFP28 25GbE
- USB: 2 USB 3.2 Gen1x2; port(s) (2 Front_USB)
  - 3 USB 3.2 Gen1 port(s) (3 Rear_USB)
  - 1 USB 3.2 Gen2x1 (Type C) port(s) (1 Rear_USB)
- Video: 1 VGA port(s)
System Cooling
3x 8, 12cm heavy duty fan(s)

Power Supply
2200W 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: 8.6” (218.4 mm)
Width: 17.9” (454.7 mm)
Depth: 27.6” (701 mm)
Gross Weight: 121 lbs (55 kg)
Net Weight: 88 lbs (44 kg)
Packaging: 25.8” (H) x 15.3” (W) x 37.6” (D)
Available Color: Black Front & Black Body

Operating Environment
Operating Temperature: 10°C ~ 25°C (50°F ~ 77°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 99% (non-condensing)

Motherboard
Super X13DEG-QT

Chassis
CSE-759TS-R2K21BP