

GPU SuperServer SYS-751GE-TNRT-NV1

DP liquid cooled AI development platform



Key Applications

High Performance Computing, AI/Deep Learning Training, AI Development,

Key Features

- Acoustically optimized for quiet operation Closed-loop liquid cooling for CPUs and GPUs;
- 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;
- Supermicro Cloud Orchestrator AI software stack;
- Ubuntu 22.04 LTS installed;



| Form Factor | Tower or 5U 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) |
| | 5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable processors |
| | 16C/32T; 30MB Cache per CPU |
| GPU | Max GPU Count: Up to 4 double-width GPU(s) |
| | CPU-GPU Interconnect: PCle 5.0 x16 CPU-to-GPU Interconnect |
| | GPU-GPU Interconnect: NVIDIA® NVLink® Bridge (2+2) |
| System Memory | Slot Count: 16 DIMM slots |
| | Max Memory (2DPC): 512GB 4800MT/s ECC DDR5 |
| Drive Bays Configuration | Default: Total 8 bay(s) |
| | 8 front hot-swap 2.5" NVMe/SAS*/SATA drive bay(s) (1010) |
| | (*SAS support may require additional storage controller and/or cables, please see the optional parts list for details) |
| | M.2: 2 M.2 NVMe slot(s) (M-key) |
| Expansion Slots | Default |
| | • 7 PCIe 5.0 x16 FHFL slot(s) |
| On-Board Devices | SATA: SATA (6Gbps); RAID 0/1/5/10 support |
| | Chipset: Intel® C741 |
| | Network Connectivity: 2 RJ45 10GbE with Intel® X550-AT2 |
| | 1 RJ45 1GbE with ASPEED AST2600 |
| | 1 SFP28 25GbE |

Input / Output

LAN: 1 RJ45 1 GbE Dedicated IPMI LAN port(s)

2 RJ45 10 GbE LAN port(s) 1 SFP28 25 GbE LAN port(s) USB: 2 USB 3.2 Gen1 port(s) (front) 3 USB 3.2 Gen1 port(s) (rear) 1 USB 3.2 Gen2 port(s) (rear)

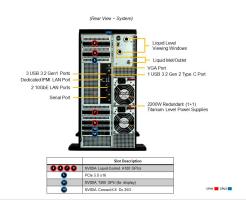
Video: 1 VGA port(s)

DOM: 2 SATA **DOM** (Disk on Module) port(s)

Audio: 7.1 HD Audio Line Out







| System Cooling | Fans: 1 fan 8cm Fan(s) |
|-----------------------|--|
| | 2 fan 12cm Fan(s) |
| | Liquid Cooling: Direct to Chip (D2C) Cold Plate (optional) |
| Power Supply | 1x 2200W Redundant Titanium Level power supply |
| System BIOS | BIOS Type: AMI 32MB SPI Flash EEPROM |
| Management | SuperCloud Composer; Supermicro Server Manager (SSM); Supermicro Update Manager (SUM); SuperDoctor® 5; |
| | Super Diagnostics Offline; TAS: Supermicro Thin-Agent Service (TAS); SAA(new!) |
| 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 | Weight: Gross Weight: 121 lbs (55 kg) |
| | Net Weight: 88 lbs (44 kg) |
| | 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 95% (non-condensing) |
| Motherboard | Super X13DEG-QT |
| Chassis | CSE-759TS-R2K21BP |