

# GPU SuperServer SYS-751GE-TNRT-NV1

DP liquid cooled AI development platform



More details here

## 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;



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|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form Factor              | Tower or 5U Rackmount<br>Enclosure: 454.7 x 218.4 x 701mm (17.9" x 8.6" x 27.6")<br>Package: 388 x 655 x 956mm (15.3" x 25.8" x 37.6")                                                                                                                                                                                    |
| Processor                | Dual Socket E (LGA-4677)<br>5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable processors<br>16C/32T; 30MB Cache per CPU                                                                                                                                                                                                |
| GPU                      | Max GPU Count: Up to 4 double-width GPUs<br>CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect<br>GPU-GPU Interconnect: NVIDIA® NVLink® Bridge (2+2)                                                                                                                                                              |
| System Memory            | Slot Count: 16 DIMM slots<br>Max Memory (2DPC): 512GB 4800MT/s ECC DDR5                                                                                                                                                                                                                                                   |
| Drive Bays Configuration | Default: Total 8 bays <ul style="list-style-type: none"> <li>• 8 front hot-swap 2.5" NVMe/SAS*/SATA drive bays</li> </ul> (*SAS support may require additional storage controller and/or cables)<br>M.2: 2 M.2 NVMe slots (M-key)                                                                                         |
| Expansion Slots          | Default <ul style="list-style-type: none"> <li>• 7 PCIe 5.0 x16 FHFL slots</li> </ul>                                                                                                                                                                                                                                     |
| On-Board Devices         | SATA: SATA (6Gbps) ; RAID 0/1/5/10 support<br>Chipset: Intel® C741<br>Network Connectivity: 2 RJ45 10GbE with Intel® X550-AT2<br>1 RJ45 1GbE with ASPEED AST2600<br>1 SFP28 25GbE                                                                                                                                         |
| Input / Output           | LAN: 1 RJ45 1 GbE Dedicated BMC LAN port<br>2 RJ45 10 GbE LAN ports<br>1 SFP28 25 GbE LAN port<br>USB: 2 USB 3.2 Gen1 ports(front)<br>3 USB 3.2 Gen1 ports(rear)<br>1 USB 3.2 Gen2 port(rear)<br>Video: 1 VGA port<br>DOM: 2 SATA <a href="#">DOM</a> (Disk on Module) ports<br>Audio: 7.1 HD Audio<br>Line Out<br>Mic in |



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| System Cooling        | Fans: 1 fan 8cm Fan(s)<br>2 fan 12cm Fan(s)<br>Liquid Cooling: Direct to Chip (D2C) Cold Plate (optional)                                                                                                                                                                                                                 |
| Power Supply          | 1x 2200W Redundant Titanium Level (96%) power supply                                                                                                                                                                                                                                                                      |
| 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>8+4 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: 121 lbs (55 kg)<br>Net Weight: 88 lbs (44 kg)<br>Available Color: Black Front & Black Body                                                                                                                                                                                                          |
| Operating Environment | Operating Temperature: 10°C ~ 25°C (50°F ~ 77°F)<br>Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)<br>Operating Relative Humidity: 8% to 90% (non-condensing)<br>Non-operating Relative Humidity: 5% to 95% (non-condensing)                                                                                   |
| Motherboard           | <a href="#">Super X13DEG-QT</a>                                                                                                                                                                                                                                                                                           |
| Chassis               | CSE-759TS-R2K21BP                                                                                                                                                                                                                                                                                                         |