

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;



| | |
|--------------------------|---|
| 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 GPUs CPU-GPU Interconnect: PCIe 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 bays <ul style="list-style-type: none"> • 8 front hot-swap 2.5" NVMe/SAS*/SATA drive bays (*SAS support may require additional storage controller and/or cables) • M.2: 2 M.2 NVMe slots (M-key) |
| Expansion Slots | Default <ul style="list-style-type: none"> • 7 PCIe 5.0 x16 FHFL slots |
| 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 BMC LAN port 2 RJ45 10 GbE LAN ports 1 SFP28 25 GbE LAN port USB: 2 USB 3.2 Gen1 ports(front) 3 USB 3.2 Gen1 ports(rear) 1 USB 3.2 Gen2 port(rear) Video: 1 VGA port DOM: 2 SATA DOM (Disk on Module) ports Audio: 7.1 HD Audio Line Out Mic in |

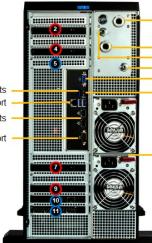
(Front View – System)



Power Button & Status LEDs
7.1 channel HD Audio
2 USB 3.2 Gen1 Ports

| Drive Bay | Description |
|-----------|---|
| 8 - 7 | Default – 8x 2.5" Hot-swap NVMe/SATA3/SSD drive bays (SAS3 supported with optional add on card and cables) |

(Rear View – System)



3 USB 3.2 Gen1 Ports
Dedicated IPMI LAN Port
2 10GbE LAN Ports
Serial Port

Liquid Intel/Outlet
VGA Port
1 USB 3.2 Gen 2 Type C Port

2200W Redundant (1+1) Titanium Level Power Supplies

| Slot Description |
|---------------------------------|
| INVIDIA Liquid Cooled A100 GPUs |
| PCIe 5.0 x16 |
| INVIDIA T400 GPU (for display) |
| INVIDIA ConnectX-6 Dx 25G |

CPU CPU

System Cooling

Fans: Up to 1 fan 8cm Fan(s)
Up to 2 fan 12cm Fan(s)
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
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: 97 lbs (44 kg)
Available Color: Black Front & Black Body

Operating Environment

Operating Temperature: 10°C to 25°C (50°F to 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](#)