

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 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 • 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 • 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



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: 8+4 Phase-switching voltage regulator Monitors for CPU Cores, Chipset Voltages, Memory FAN: Fans with tachometer monitoring Pulse Width Modulated (PWM) fan connectors Status monitor for speed control 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