

GPU SuperServer SYS-751GE-TNRT-NV1

Liquid-cooled AI Development Platform with Supermicro Cloud Orchestrator AI software stack



More details here

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;
- 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) 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: 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 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: SATA3 (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	Fans: 1 fan 8CM Fan(s) 2 fan 12CM 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 95% (non-condensing)
Motherboard	Super X13DEG-QT
Chassis	CSE-759TS-R2K21BP