

SuperWorkstation SYS-542AW-TR

4U UP rackmount workstation with 8 hot-swap NVMe/SAS/SATA drive bays and PCIe 5.0



Key Applications

High Performance Computing, VDI, AI/Deep Learning Training, Media/Video Streaming, Cloud Gaming, Animation and Modeling, Design & Visualization, 3D Rendering, Diagnostic Imaging, AI Training,

Key Features

- Single Intel® Xeon® 600 Series processor (LGA 4710-2/Socket E2), with up to 86 cores/350W TDP;
- 8 DDR5 ECC Registered RDIMM/3DS RDIMM, DDR5-6400MT/s Up to total 2TB;
- Support for up to 4 double-width PCIe GPU cards or 2 triple-width PCIe GPU cards;
- 1 Dedicated LAN for IPMI
Dual 10GbE LAN with Intel E610-XAT2 + 1 GbE LAN with Intel I219-LM;
- 8 Hot-swap 3.5" NVMe/SAS/SATA drive bays
4 M.2 (support 2280/22110, M-socket, 2x PCIe 5.0 x4 attached to CPU and 2x PCIe 4.0 x4 attached to PCH);
- 5 PCIe 5.0 x16 slots + 1 PCIe 5.0 x8 slot;
- Dual 2000W / 2600W Redundant Titanium Level power supplies
(Power supply full redundancy based on configuration and application load);



Form Factor	4U Rackmount Enclosure: 177 x 465.4 x 678.5mm (6.96" x 18.32" x 26.71") Package: 682 x 320 x 964mm (26.85" x 12.59" x 37.95")
Processor	Single E2 (LGA 4710-2) Intel® Xeon® 600 Processor for Workstation Up to 86C/172T; Up to 336MB Cache
GPU	Max GPU Count: Up to 2 triple-width or 4 double-width GPUs Supported GPU: NVIDIA PCIe: NVIDIA RTX PRO™ 4000 Blackwell, NVIDIA RTX PRO™ 5000 Blackwell, NVIDIA RTX PRO™ 6000 Blackwell Max-Q Workstation Edition, NVIDIA RTX PRO™ 6000 Blackwell Workstation Edition CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect
System Memory	Slot Count: 8 DIMM slots Max Memory (1DPC): Up to 2TB 6400MT/s ECC DDR5 RDIMM
Drive Bays Configuration	Default: Total 8 bays <ul style="list-style-type: none"> • 8 front hot-swap 3.5" NVMe/SAS*/SATA drive bays Option A: 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, please see the optional parts list for details) M.2: 2 M.2 PCIe 4.0 x4 NVMe slots (M-key 22110(default)/2280) 2 M.2 PCIe 5.0 x4 NVMe slots (M-key 22110(default)/2280) Peripheral Bays: 3 5.25" peripheral bays
Expansion Slots	Default <ul style="list-style-type: none"> • 5 PCIe 5.0 x16 FHFL slots • 1 PCIe 5.0 x8 FHFL slot
On-Board Devices	SATA: SATA (6Gbps) via Intel® W890; RAID 0/1/5/10 support(Intel® VROC RAID key required) Chipset: intel® W890 Network Connectivity: 2 RJ45 10GbE with Intel® E610 1 RJ45 1GbE with Intel® I219-LM 1 RJ45 1GbE with ASPEED AST2600
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port (ASPEED AST2600) 1 RJ45 1 GbE LAN port (Intel® I219-LM)

2 RJ45 10 GbE LAN ports (Intel® E610)
USB: 2 USB 3.2 Gen1 Type-A ports(front)
 3 USB 3.2 Gen2 Type-A ports(Rear)
 1 USB 3.2 Gen2x2 Type-C port(Rear)
Video: 1 VGA port(Rear)
Serial: 1 COM port(rear)
Audio: 7.1 HD Audio
TPM: 1 TPM Onboard TPM & TPM Header



System Cooling	Fans: Up to 5 heavy duty fans with optimal fan speed control Air Shroud: 1 Air Shroud
Power Supply	2x 2000W Redundant (1 + 1) Titanium Level (96%) power supplies
System BIOS	BIOS Type: AMI 64MB SPI Flash EEPROM
Management	SuperCloud Composer® (SCC); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM); Super Diagnostics Offline (SDO); Supermicro Thin-Agent Service (TAS); SuperServer Automation Assistant (SAA) New!
PC Health Monitoring	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 Voltage: System temperature, Memory temperature, CPU temperature, 3.3V standby, +5V standby, +5V, +3.3V, +12V, CPU thermal trip support
Dimensions and Weight	Weight: Gross Weight: 62 lbs (28.1 kg) Net Weight: 46 lbs (20.9 kg) Available Color: Black
Operating Environment	RoHS Compliant Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -30°C to 60°C (-22°F to 140°F) Operating Relative Humidity: 8% to 80% (non-condensing) Non-operating Relative Humidity: 8% to 90% (non-condensing)
Motherboard	Super X14SRG-TF
Chassis	CSE-749TS-R000NBP