

Embedded SuperServer SYS-512AR-N4T

1U Compact Edge Server with 2 NVMe/SATA bays



Key Applications

Multi-Access Edge Computing, Retail, Artificial Intelligence (AI) on Edge, AI Inference,

Key Features

- Intel® Arrow Lake-S, 15th Gen Core Ultra 5/7/9 Processor, 95W;
- Support for up to 1 single-width PCIe GPU accelerator cards;
- DDR5 5600MHz, 4 slots ECC/Non-ECC UDIMM, up to 192GB;
- 2x 2.5GbE and 2x 10GbE LAN;
- 1 PCIe 5.0 x16 FHHL slot;
- 4x SATA3 3.5" Drive Bays;
- 600W/800W 100-240Vac Titanium/Platinum Single Power Supply (can be upgraded to redundant power supply);



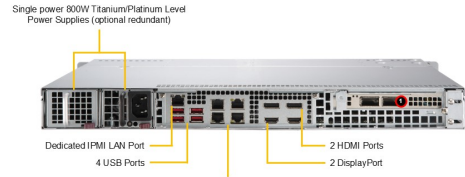
Form Factor	1U Rackmount Enclosure: 437 x 43 x 507mm (17.2" x 1.7" x 19.98") Package: 609.6 x 215.9 x 749.3mm (24" x 8.5" x 29.5")
Processor	Single LGA-1851 Intel® Core™ Ultra 9/7/5 (Series 2) processors 24C/24T; 36MB Cache
GPU	Max GPU Count: Up to 1 single-width GPU Supported GPU: NVIDIA PCIe: A2
System Memory	Slot Count: 4 DIMM slots/2 Channels Max Memory (1DPC): 192GB 5600MT/s ECC/non-ECC DDR5 UDIMM Max Memory (2DPC): 192GB 4400MT/s ECC/non-ECC DDR5 UDIMM
Drive Bays Configuration	Default: Total 4 bays • 4 front hot-swap 3.5" SATA drive bays M.2: 1 M.2 PCIe 5.0 x4 NVMe slot (M-key 2280/22110)
Expansion Slots	PCI-Express (PCIe) Configuration: Default • 1 PCIe 5.0 x16 FHHL slot M.2: 1 M.2 PCIe 5.0 x4 NVMe slot (M-key 2280/22110)
On-Board Devices	SATA: SATA (6Gbps) Chipset: System on Chip Network Connectivity: 2 RJ45 10GbE with Intel® X550
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port 2 RJ45 10 GbE LAN ports (Intel® X550-AT2) 2 RJ45 2.5 GbE LAN ports (Intel® I226) USB: 4 USB 3.2 Gen2 Type-A ports(Rear) Video: 2 DisplayPort 1.4 ports(Rear) 2 HDMI 2.1 ports(Rear) TPM: 1 TPM header 1 TPM Onboard/port 80

(Front View – System)



Drive Bay	Description
0-3	4 Hot-swap 3.5" SAS/SATA Drive Bays

(Rear View – System)



Slot	Slot Description
1	PCIe 5.0 x16 FHHL

System Cooling	Fans: 6x 4cm heavy duty fans with optimal fan speed control Air Shroud: 1 Air Shroud
Power Supply	1x 800W Redundant Platinum Level (94%) power supply
System BIOS	BIOS Type: AMI 32MB SPI Flash EEPROM
Management	SuperCloud Composer; Supermicro Server Manager (SSM); Super Diagnostics Offline (SDO); Supermicro Thin-Agent Service (TAS); SuperServer Automation Assistant (SAA) New!
PC Health Monitoring	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 CPU: Monitors for CPU Cores, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory, Chipset Voltages. Voltage: Voltage, VBAT, Memory temperature, CPU temperature, 3.3V standby, +5V standby, +5V, +3.3V, +12V, VRM temperature, CPU thermal trip support, 1.8V standby
Dimensions and Weight	Weight: Gross Weight: 30.4 lbs (13.8 kg) Net Weight: 17.6 lbs (8 kg) Available Color: Black
Operating Environment	Operating Temperature: 0°C to 40°C (32°F to 95°F) Non-operating Temperature: -40°C to 70°C (-40°F to 158°F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5% to 95% (non-condensing)
Motherboard	Super X14SAZ-TLN4F
Chassis	CSE-813MF2TS-R000CNBP-2