

Embedded SuperServer SYS-512AR-N4T

1U Compact Edge Server with 4x 3.5" SATA bays



Key Applications

Multi-Access Edge Computing (MEC), Video Surveillance, Retail, Edge AI,

Key Features

- Intel® Arrow Lake-S, 15th Gen Core Ultra 5/7/9 Processor, 95W;
- 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);



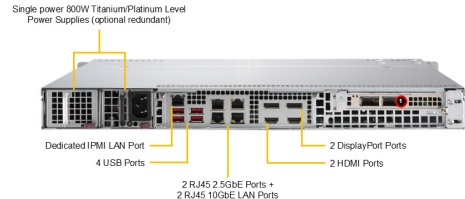
Form Factor	<p>1U Rackmount</p> <p>Enclosure: 437 x 43 x 507mm (17.2" x 1.7" x 19.98")</p> <p>Package: 609.6 x 215.9 x 749.3mm (24" x 8.5" x 29.5")</p>
Processor	<p>Single LGA-1851</p> <p>Intel® Core™ Ultra 9/7/5 (Series 2) processors</p> <p>24C/24T; 36MB Cache</p>
System Memory	<p>Slot Count: 4 DIMM slots/2 Channels</p> <p>Max Memory (1DPC): 192GB 5600MT/s ECC/non-ECC DDR5 UDIMM</p> <p>Max Memory (2DPC): 192GB 4400MT/s ECC/non-ECC DDR5 UDIMM</p>
Drive Bays Configuration	<p>Default: Total 4 bays</p> <ul style="list-style-type: none"> • 4 front hot-swap 3.5" SATA drive bays <p>M.2: 1 M.2 PCIe 5.0 x4 NVMe slot (M-key 2280/22110)</p>
Expansion Slots	<p>Default</p> <ul style="list-style-type: none"> • 1 PCIe 5.0 x16 FHHL slot
On-Board Devices	<p>SATA: SATA (6Gbps) via Intel® W880; RAID 0/1/5/10 support(Port 1 to 4)</p> <p>Network Connectivity: 2 RJ45 10GbE with Intel® X550</p>
Input / Output	<p>LAN: 1 RJ45 1 GbE Dedicated BMC LAN port</p> <p>2 RJ45 10 GbE LAN ports (Intel® X550-AT2)</p> <p>2 RJ45 2.5 GbE LAN ports (Intel® I226)</p> <p>USB: 4 USB 3.2 Gen2 Type-A ports(Rear)</p> <p>Video: 2 DisplayPort 1.4 ports(Rear)</p> <p>2 HDMI 2.1 ports(Rear)</p> <p>TPM: 1 TPM header</p> <p>1 TPM Onboard/port 80</p>

(Front View – System)



Drive Bay	Description
	4 Hot-swap 3.5" SAS/SATA3 Drive Bays

(Rear View – System)



Slot	Slot Description
	PCIe 5.0 x16 FH/FL

System Cooling	Fans: Up to 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	CPU: Monitors for CPU Cores, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory, Chipset Voltages. 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: 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 104°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