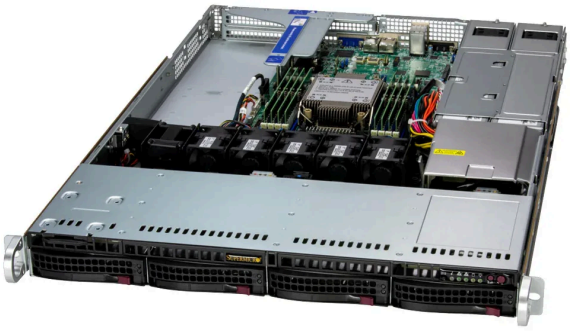
Intel Xeon (X14) | 1U | Server

Supermicro SYS-512B-WR

Intel Xeon (X14) · 1U Server

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Form Factor **1U**	CPU **Intel® Xeon® 6700/6500 series processors with P-cores or 6700 series processors with E-cores**
GPU **Up to 1 double-width or 2 single-width GPUs**	Memory **Max Memory (1DPC): Up to 2TB 6400MT/s ECC DDR5 RDIMM**

Key Features

- WIO systems offer flexible I/O configurations in a cost-effective architecture to deliver truly optimized systems for specific enterprise requirements.
- Single Intel® Xeon® 6 Processor
- 8 DIMM slots supporting up to 2TB of memory
- Tool-less, Top-loading riser design support 3 PCIe 5.0 Expansion (2x FHFL + 1x LP).
- Native SATA drives supported, with option PCIe 5.0 NVMe and SAS.
- Trusted Platform Module (TPM) 2.0 onboard.

Form Factor	1U
Platform	Intel Xeon (X14)
CPU	Single Socket E2 (LGA-4710) Intel® Xeon® 6700/6500 series processors with P-cores or 6700 series processors with E-cores
Max GPU Count	Up to 1 double-width or 2 single-width GPUs
Supported GPU	NVIDIA PCIe: L4, NVIDIA RTX PRO 2000 Blackwell, NVIDIA RTX PRO 4000 Blackwell SFF Edition, NVIDIA RTX PRO™ 4500 Blackwell Server Edition, NVIDIA RTX PRO™ 5000 Blackwell, NVIDIA RTX PRO™ 6000 Blackwell Max-Q Workstation Edition, RTX 2000 Ada, RTX 4000 Ada Generation
Memory	Slot Count: 8 DIMM slots/8 Channels Max Memory (1DPC): Up to 2TB 6400MT/s ECC DDR5 RDIMM
Drive Bays	Default: Total 4 bays4 front hot-swap 3.5" SAS*/SATA drive bays
Fans	Up to 1 AOC cooling Fan(s) (optional)

Power Supply	2x 860W Redundant (1 + 1) Titanium Level (96%) power supplies

Full Specifications — SYS-512B-WR

Product SKUs

Part numbers	SYS-512B-WR

Motherboard

Motherboard	Super X14SBW-F

Processor

CPU	Single Socket E2 (LGA-4710) Intel® Xeon® 6700/6500 series processors with P-cores or 6700 series processors with E-cores
Core Count	P-cores: Up to 86C/172T; Up to 336MB Cache E-cores: Up to 144C/144T; Up to 108MB Cache
Note	Supports up to 350W TDP CPUs (Air Cooled)

GPU

Max GPU Count	Up to 1 double-width or 2 single-width GPUs
Supported GPU	NVIDIA PCIe: L4, NVIDIA RTX PRO 2000 Blackwell, NVIDIA RTX PRO 4000 Blackwell SFF Edition, NVIDIA RTX PRO™ 4500 Blackwell Server Edition, NVIDIA RTX PRO™ 5000 Blackwell, NVIDIA RTX PRO™ 6000 Blackwell Max-Q Workstation Edition, RTX 2000 Ada, RTX 4000 Ada Generation NVIDIA: RTX A400 View GPU Options
CPU-GPU Interconnect	PCIe 5.0 x16 CPU-to-GPU Interconnect

System Memory

Memory	Slot Count: 8 DIMM slots/8 Channels Max Memory (1DPC): Up to 2TB 6400MT/s ECC DDR5 RDIMM View Memory Options
Memory Voltage	1.1V

On-Board Devices

SATA	SATA (6Gbps)
NVMe	NVMe; RAID 0/1/5/10 support(Intel® VROC RAID key required) View NVMe Options
Network Connectivity	2 RJ45 1GbE with Intel® I210 View AOC Options

Input / Output

LAN	2 RJ45 1 GbE LAN ports 1 RJ45 1 GbE Dedicated BMC LAN port (IPMI shared on LAN port 1)

USB	2 USB 3.2 Gen1 Type-A ports (rear) 2 USB 3.2 Gen1 ports (Header)
Video	1 VGA port
Serial	1 COM port (header) 1 COM port (rear)
TPM	1 TPM header

System BIOS

BIOS Type	AMI 64MB SPI Flash EEPROM

Management

Software	SuperCloud Composer® (SCC) Supermicro Server Manager (SSM) Super Diagnostics Offline (SDO) Supermicro Thin-Agent Service (TAS) SuperServer Automation Assistant (SAA) New!
Power configurations	ACPI/APM Power Management

Security

Hardware	Trusted Platform Module (TPM) 2.0 Silicon Root of Trust (RoT) – NIST 800-193 Compliant
Features	Cryptographically Signed Firmware Secure Boot Secure Firmware Updates Automatic Firmware Recovery Supply Chain Security: Remote Attestation Runtime BMC Protections System Lockdown

PC Health Monitoring

CPU	8 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

Certifications

Operating Systems	ESXi 8.0U3, ESXi 9.0, Oracle Linux 9.4, RHEL 9.4, RHEL 10.0, Windows Server 2022, Windows Server 2025 View all OS Compatibility and Certification Matrix

Chassis

Form Factor	1U
Model	CSE-815BTS-R000WNP

Dimensions and Weight

Height	1.7" (43 mm)
Width	17.2" (437 mm)
Depth	25.6" (650 mm)
Package	8.5" (H) x 23.5" (W) x 33.7" (D)
Weight	Gross Weight: 34.5 lbs (15.46 kg) Net Weight: 21.5 lbs (9.75 kg)
Available Color	Black

Front Panel

Buttons	Power On/Off button System Reset button Unit Identification (UID) button
LED	Fan Fail/System Over Heat LED HDD activity LED Network Activity LEDs Power status LED Unit Identification (UID) LED

Expansion Slots

PCI-Express (PCIe) Configuration	Default2 PCIe 5.0 x16 FHFL slots 1 PCIe 5.0 x8 (in x16) LP slot 2 PCIe 5.0 x16 FHFL slots 1 PCIe 5.0 x8 (in x16) LP slot View AOC Options

Drive Bays / Storage

Drive Bays Configuration	Default: Total 4 bays4 front hot-swap 3.5" SAS*/SATA drive bays 4 front hot-swap 3.5" SAS*/SATA drive bays Option A: Total 4 bays4 front hot-swap 3.5"/2.5" PCIe 5.0 x4 NVMe*/SAS*/SATA drive bays 4 front hot-swap 3.5"/2.5" PCIe 5.0 x4 NVMe*/SAS*/SATA drive bays (*NVMe/SAS support may require additional storage controller and/or cables, please see the optional parts list for details) View NVMe Options
M.2	2 M.2 PCIe 5.0 x2 NVMe slots (M-key 2280/22110; VROC required for RAID) View M.2 Options
Peripheral Bays	2 slim peripheral bays

System Cooling

Fans	Up to 1 AOC cooling Fan(s) (optional) Up to 5 middle cooling PWM 40x40x56mm Fan(s)
Air Shroud	1 CPU Air Shroud

Power Supply

2x 860W Redundant (1 + 1) Titanium Level (96%) power supplies

Dimension (WxHxL)	54.5 x 40.25 x 322 mm
Input	800W: 100-127Vac / 50-60Hz 860W: 200-240Vac / 50-60Hz 860W: 240Vdc / 50-60Hz
+12V	Max: 66.67A / Min: 0A (100Vac-127Vac) Max: 71.67A / Min: 0A (Vdc-240Vdc) Max: 71.67A / Min: 0A (200Vac-240Vac)
5V SB	Max: 4A / Min: 0A
Output Type	Backplanes (gold finger)

Operating Environment

Environmental Spec.	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)

Environmental / Recycling

Recycle	Return Server-End of Life Product