Intel Xeon (X14) | 8U Rackmount | GPU Server

Supermicro SYS-822GS-NBRT

Intel Xeon (X14) · 8U Rackmount · GPU Server Server

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Form Factor	CPU
8U Rackmount	Intel® Xeon® 6700/6500 series processors with P-cores
GPU	**Memory**
8 onboard GPUs	Max Memory (1DPC): Up to 4TB 6400MT/s ECC DDR5 RDIMM

Key Features

- Dual Intel® Xeon® 6700/6500 series processors with P-cores, up to 350W TDP
- HGX B200 8-GPU SXM6 with NVSwitch, 1000W TDP per GPU, air cooled
- 32 DIMM slots supporting up to 8TB of memory
- 8 Hot-swap E1.S NVMe storage drives , 2 M.2 NVMe
- Up to 8 PCIe 5.0 x16 LP + 2 PCIe 5.0 x16 FHHL
- 1 USB 3.0 port, 1 USB 2.0 port, 1 Mini-DP port, 1 IPMI GbE LAN port, 2 10G NIC (X710)
- 6 redundant (3+3) 6600W Titanium level power supplies
- 8U air-cooled Front I/O system

Form Factor	8U Rackmount
Platform	Intel Xeon (X14)
CPU	Dual Socket E2 (LGA-4710) Intel® Xeon® 6700/6500 series processors with P-cores
Max GPU Count	8 onboard GPUs
Supported GPU	NVIDIA SXM: HGX B200 8-GPU (180GB)
Memory	Slot Count: 32 DIMM slots Max Memory (1DPC): Up to 4TB 6400MT/s ECC DDR5 RDIMM
Drive Bays	Default: Total 8 bays8 front hot-swap E1.S NVMe drive bays
Fans	12 heavy duty fans with optimal fan speed control
Power Supply	6x 6600W Redundant (3 + 3) Titanium Level (96%) power supplies

Full Specifications — SYS-822GS-NBRT

Product SKUs

Part numbers	SYS-822GS-NBRT

Motherboard

Motherboard	Super X14DBG-LC+

Processor

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

GPU

Max GPU Count	8 onboard GPUs
Supported GPU	NVIDIA SXM: HGX B200 8-GPU (180GB) View GPU Options
CPU-GPU Interconnect	PCIe 5.0 x16 CPU-to-GPU Interconnect
GPU-GPU Interconnect	NVIDIA® NVLink™ with NVSwitch™

System Memory

Memory	Slot Count: 32 DIMM slots Max Memory (1DPC): Up to 4TB 6400MT/s ECC DDR5 RDIMM Max Memory (2DPC): Up to 8TB 5200MT/s ECC DDR5 RDIMM View Memory Options
Memory Voltage	1.1V

On-Board Devices

Network Connectivity	2 RJ45 10GbE with Intel® X710 View AOC Options

Input / Output

LAN	1 RJ45 1 GbE Dedicated BMC LAN port
USB	1 USB 3.0 Type-A port (Front) 1 USB 2.0 Type-A port (Front)
Video	1 Mini-DP port (Front)
TPM	1 TPM header

System BIOS

BIOS Type	AMI 64MB UEFI

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	Power-on mode for AC power recovery ACPI 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+4 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	Oracle Linux 9.6, RHEL 10.0 View all OS Compatibility and Certification Matrix

Chassis

Form Factor	8U Rackmount
Model	CSE-GP807TS-R000NP-B2

Dimensions and Weight

Height	13.8" (356 mm)
Width	17.6" (449 mm)
Depth	37.4" (950 mm)
Package	26.38" (H) x 28.74" (W) x 50.39" (D)
Weight	Gross Weight: 341 lbs (155 kg) Net Weight: 293 lbs (133 kg)
Available Color	Silver

Front Panel

Buttons	Power On/Off UID
LED	HDD activity LAN1 activity LAN2 activity Power Fail Power status System information (overheat/UID)

Expansion Slots

PCI-Express (PCIe) Configuration	Default8 PCIe 5.0 x16 LP slots 2 PCIe 5.0 x16 FHHL slots View AOC Options

Drive Bays / Storage

Drive Bays Configuration	Default: Total 8 bays8 front hot-swap E1.S NVMe drive bays View NVMe Options
M.2	2 M.2 PCIe 5.0 x4 NVMe slots (M-key 2280/22110; RAID support via S3808N controller) View M.2 Options

System Cooling

Fans	12 heavy duty fans with optimal fan speed control
Air Shroud	1 Air Shroud

Power Supply

6x 6600W Redundant (3 + 3) Titanium Level (96%) power supplies

Dimension (WxHxL)	106.5 x 82.1 x 245.3 mm

Input	5900W: 200-207.9Vac / 50-60Hz 6000W: 208-219.9Vac / 50-60Hz 6300W: 220-229.9Vac / 50-60Hz 6500W: 230-238.9Vac / 50-60Hz 6600W: 239-240Vac / 50-60Hz
+12V	Max: 130A / Min: 0A (200Vac-207.9Vac) Max: 130A / Min: 0A (208Vac-219.9Vac) Max: 130A / Min: 0A (220Vac-229.9Vac) Max: 130A / Min: 0A (230Vac-238.9Vac) Max: 130A / Min: 0A (239Vac-240Vac)
12V SB	Max: 4A / Min: 0A
Output Type	Backplanes (gold finger)
Certification	Titanium Level [Test Report]

Operating Environment

Environmental Spec.	Operating Temperature: 10°C to 35°C (50°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)