

TECHNICAL DATASHEET

SUPERMICRO • MULTI-NODE & TWIN

Supermicro 2U GrandTwin Server SYS-212GT-HNR

The Supermicro SYS-212GT-HNR is a 2U 4-node GrandTwin server with a single Intel Xeon 6 processor, up to 4TB DDR5 memory, 6 hot-swap 2.5" NVMe bays, and dual OCP 3.0 compatible AIOM slots per node — optimized single processor performance and memory density, ideal for all-flash NVMe storage, VSAN, mission-critical web, scale-out object storage, cloud computing, software defined storage, and multi-purpose CDN workloads

SKU SYS-212GT-HNR

2U

LGA4710

Supermicro



FORM FACTOR



MAX POWER (BASE)



HEAT OUTPUT



PRICE

CONFIGURE & QUOTE ONLINE
serverinvest.com/product/sys-212gt-hnr



01 Product overview

The Supermicro SYS-212GT-HNR is a 2U GrandTwin Server built on Intel Xeon 6 with up to 4 TB of memory in 16 DIMM slots.

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ServerInvest configures every SYS-212GT-HNR to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

KEY SPECIFICATIONS

Form factor	2U
Processor	Intel Xeon 6
Socket	LGA4710
Memory	16 DIMM slots, up to 4 TB
Memory type	DDR5-6400 ECC RDIMM
Drive bays	6 (6 NVMe)
Power supply	2× 2200 W
Typical power draw	450 W
Networking	Via IO Module
Dimensions (W×H×D)	437 × 89 mm

HIGHLIGHTS

- Intel Xeon 6
- Up to 4 TB memory · 16 DIMM slots
- Total 6 bays 6 front hot-swap 2.5" PCIe 5.0 x4 NVMe drive bays
- Power: 2x 2200W
- Networking: Via IO Module



02 Base configuration

Components included in the listed base price — every part can be changed in the online configurator

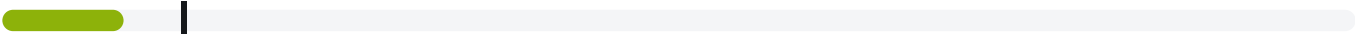
COMPONENT	DESCRIPTION	QTY
Base system	Supermicro 2U GrandTwin Server SYS-212GT-HNR	1
Processor	Intel Xeon 6505P Processor 12 Cores (48M Cache, 2.20Ghz) 150W	1
Memory	16GB 6400MT/s DDR5 ECC Registered DIMM Module	2
Warranty & support	3-year return-to-base warranty (included)	1

Price on request — contact us for a tailored quotation

03 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
84 W	197 W	296 W	1,010 BTU/h	0.3 kW	13%



Typical 197 W · max 296 W · single PSU rating 2200 W

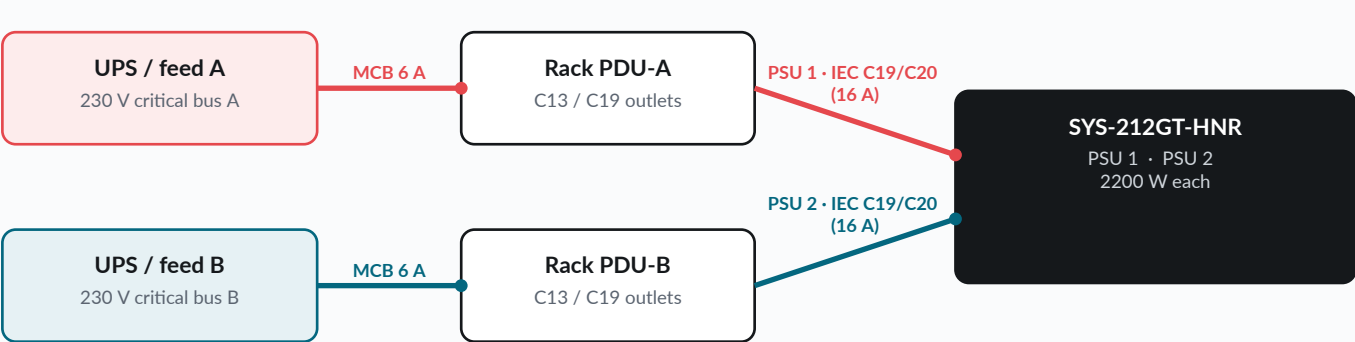
Annual IT energy (24/7)	1,429 kWh
Annual facility energy (PUE 1.5)	2,144 kWh
Annual energy cost	€286 IT · €429 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.56 t (grid factor 0.26 kg/kWh)
Power supplies	2× 2200 W redundant (N+1)

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	50 W	77 W	110 W
CPU — Intel Xeon 6505P Processor 12 Cores	23 W	98 W	150 W
2× Memory 16 GB DIMM	6 W	10 W	18 W

DC loads converted to wall power at 94% PSU efficiency; typical load assumed 70% of the time. Engineering estimates — confirm with the manufacturer's power calculator for critical designs.

04 Power connection diagram

Dual-feed (A/B) connection for redundant power supplies



- Connect PSU 1 to PDU-A and PSU 2 to PDU-B (independent feeds) using IEC C19/C20 (16 A) power cords.
- Maximum current per feed: 1.4 A at 230 V — each feed must be able to carry the full load if the other fails.
- Recommended protection per PDU circuit: MCB 6 A, curve C; RCD according to local regulations.
- Heat to remove at full load: 296 W = 1,010 BTU/h (0.3 kW).

05 Full specifications

MOTHERBOARD

Super X14SBT-G

PROCESSOR (PER NODE)

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 330W TDP CPUs (Air Cooled)

SYSTEM MEMORY (PER NODE)

Memory	Slot Count: 16 DIMM slots/2 Channels Max Memory (1DPC): Up to 2TB 6400MT/s ECC DDR5 RDIMM Max Memory (1DPC): Up to 512GB 8000MT/s ECC DDR5 MRDIMM Max Memory (2DPC): Up to 4TB 5200MT/s ECC DDR5 RDIMM View Memory Options
Memory Voltage	1.1V

ON-BOARD DEVICES (PER NODE)

Network Connectivity	Via IO Module View AIOM Options View AOC Options
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INPUT / OUTPUT (PER NODE)

LAN	1 RJ45 1 GbE Dedicated BMC LAN port
USB	2 USB 3.0 ports
Video	1 VGA port

SYSTEM BIOS

BIOS Type	AMI 64MB Flash ROM
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MANAGEMENT

Software	SuperCloud Composer (SCC) Supermicro Server Manager (SSM) Super Diagnostics Offline (SDO) Supermicro Thin-Agent Service (TAS) SuperServer Automation Assistant (SAA) New!
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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

CERTIFICATIONS

Operating Systems	Oracle Linux 9.4, RHEL 9.4, RHEL 10.0, Windows Server 2022, Windows Server 2025 View all OS Compatibility and Certification Matrix
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CHASSIS

Form Factor	2U Rackmount
Model	CSE-GT214BC-R2K21BP

DIMENSIONS AND WEIGHT

Height	3.46" (88 mm)
Width	17.67" (449 mm)
Depth	28" (711.2 mm)
Package	9.76" (H) x 24.65" (W) x 45.28" (D)
Weight	Gross Weight: 88 lbs (39.9 kg) Net Weight: 68 lbs (30.8 kg)
Available Color	Silver

FRONT PANEL

Buttons	Power On/Off button UID button
LED	HDD activity LED Network activity LEDs Power status LED Universal Information (UID) LED

EXPANSION SLOTS (PER NODE)

PCI-Express (PCIe) Configuration	Default 2 PCIe 5.0 x16 (in x16) AIOM slots (OCP 3.0 compatible) View AOC Options
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DRIVE BAYS / STORAGE (PER NODE)

Drive Bays Configuration	Default: Total 6 bays 6 front hot-swap 2.5" PCIe 5.0 x4 NVMe drive bays View NVMe Options
M.2	2 M.2 PCIe 5.0 x4 NVMe slots (M-key 22110(default)/2280; VROC required for RAID) View M.2 Options

SYSTEM COOLING

Fans	Up to 2x 16K RPM Heavy Duty 8cm Fan(s)
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POWER SUPPLY

2x 2200W
2x 2200W Redundant (1 + 1) Titanium Level (96%) power supplies
Dimension (WxHxL)
106.5 x 84 x 245.3 mm

OPERATING ENVIRONMENT

RoHS	RoHS Compliant
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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)

06 Built, tested & supported by ServerInvest

Engineered configuration

Every option validated for socket, memory channels, PCIe lanes, power and cooling.

48-hour burn-in

Assembled, firmware-updated and stress-tested before it leaves our workshop.

3-year warranty

Standard on every system, with on-site next-business-day upgrades available.

Rack-ready delivery

Rails, cable management and labelling included — delivered across Europe.



Ready to order or need changes?

Configure this system online or talk to a solutions engineer — we reply within one business day.

office@serverinvest.com

Official manufacturer datasheet: serverinvest.com/product/sys-212gt-hnr/datasheet/manufacturerr

