TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro 2U Hyper Server SYS-212HA-TN

2U UP Hyper supporting up to 24 hot-swap 2.5" NVMe/SAS/SATA bays and up to 4 PCIe 5.0 + 1 PCIe 5.0 AIOM slots

SKU SYS-212HA-TN | 2U | LGA7529 | Supermicro

FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
2U	296 W	1,010 BTU/h	from €21,160

ISO 9001 · ISO 14001 · ISO 27001 · cisco · tp-link · Omada by tp-link

CONFIGURE & QUOTE ONLINE
serverinvest.com/product/sys-212ha-tn

01 Product overview

The Supermicro SYS-212HA-TN is a 2U Hyper Server built on Intel Xeon 6 with up to 3 TB of memory in 12 DIMM slots.

2U UP Hyper supporting up to 24 hot-swap 2.5" NVMe/SAS/SATA bays and up to 4 PCIe 5.0 + 1 PCIe 5.0 AIOM slots.

The chassis accepts up to 1 GPU accelerators for AI, rendering and HPC workloads.

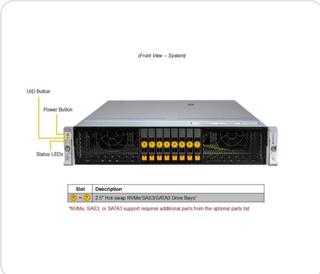
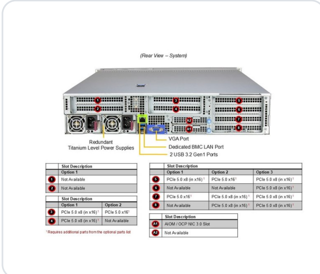
ServerInvest configures every SYS-212HA-TN to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Intel Xeon 6
- Up to 3 TB memory · 12 DIMM slots
- Total 8 bays 8 front hot-swap 2.5" NVMe*/SAS*/SATA* drive bays
- Up to 1 GPUs
- Power: 2x 1200W
- Networking: Via AIOM

KEY SPECIFICATIONS

Form factor	2U
Processor	Intel Xeon 6
Socket	LGA7529
Memory	12 DIMM slots, up to 3 TB
Memory type	DDR5-6400 ECC RDIMM
Drive bays	52 (52 NVMe)
GPU	Up to 1 GPUs
Power supply	2× 1200 W
Typical power draw	900 W
Networking	Via AIOM
Dimensions (W×H×D)	437 × 89 mm

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 Hyper Server SYS-212HA-TN**	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

Base configuration from **€21,160** excl. VAT

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	25%

Typical 197 W · max 296 W · single PSU rating 1200 W

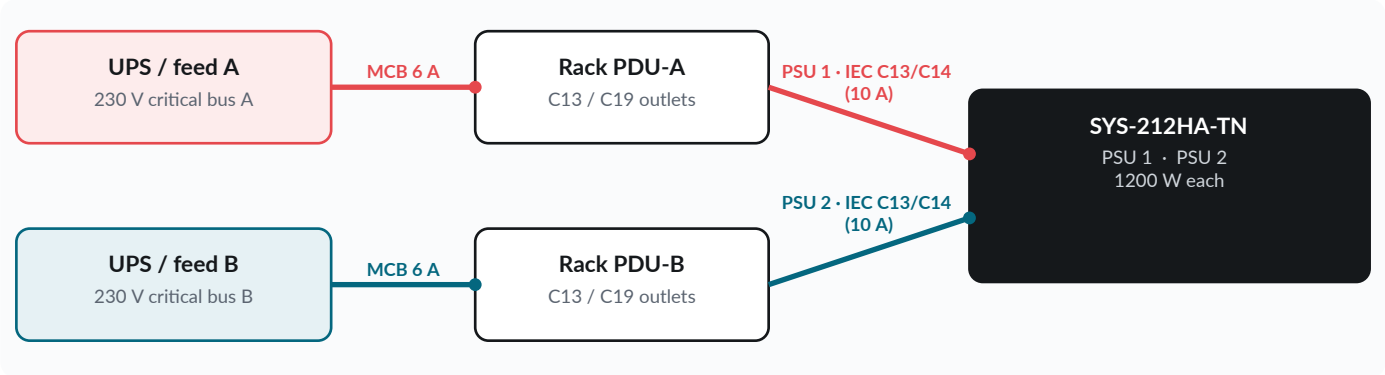
Annual IT energy (24/7)	1,429 kWh
Annual facility energy (PUE 1.5)	2,144 kWh
Annual energy cost	€286 IT · €429 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.56 t (grid factor 0.26 kg/kWh)
Power supplies	2× 1200 W redundant (N+1)

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 C13/C14 (10 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 X14SBH-AP

PROCESSOR

CPU	Single Socket BR (LGA-7529) Intel Xeon 6900 Series processors with P-cores and Intel Xeon 6+ processors

Core Count	P-cores: Up to 128C/256T; Up to 504MB Cache E-cores: Up to 288C/288T; Up to 576MB Cache
Note	Supports up to 500W TDP CPUs (Air Cooled)

GPU

Max GPU Count	Up to 1 double-width or 2 single-width GPUs
Supported GPU	NVIDIA PCIe: H100 NVL, L4, L40S, NVIDIA RTX PRO 2000 Blackwell, NVIDIA RTX PRO 4000 Blackwell, NVIDIA RTX PRO 4500 Blackwell, NVIDIA RTX PRO 4500 Blackwell Server Edition, NVIDIA RTX PRO 5000 Blackwell, NVIDIA RTX PRO 6000 Blackwell Max-Q Workstation Edition Intel PCIe: Intel Data Center GPU Flex 170 View GPU Options
CPU-GPU Interconnect	PCIe 5.0 x16 CPU-to-GPU Interconnect

SYSTEM MEMORY

Memory	Slot Count: 12 DIMM slots Max Memory (1DPC): Up to 3TB 8800MT/s ECC DDR5 MRDIMM (P-core only) Max Memory (1DPC): Up to 1.5TB 8000MT/s ECC DDR5 RDIMM (E-core) Max Memory (1DPC): Up to 3TB 6400MT/s ECC DDR5 3DS RDIMM (P-core only) View Memory Options
Memory Voltage	1.1V

ON-BOARD DEVICES

NVMe	NVMe; RAID 0/1/5/10 support(Intel VROC RAID key required) View NVMe Options
Network Connectivity	Via AIOM View AIOM Options View AOC Options

INPUT / OUTPUT

LAN	1 RJ45 1 GbE Dedicated BMC LAN port
USB	2 USB 3.2 Gen1 ports (Rear)
Video	1 VGA port

SYSTEM BIOS

BIOS Type	AMI 64MB SPI Flash

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	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 9.4, RHEL 9.4, RHEL 10.0, Windows Server 2025 View all OS Compatibility and Certification Matrix

CHASSIS

Form Factor	2U Rackmount
Model	CSE-HS201-R000NFP

DIMENSIONS AND WEIGHT

Height	3.5" (88.9 mm)
Width	17.2" (437 mm)
Depth	31.74" (806.2 mm)
Package	9.96" (H) x 26.46" (W) x 43.31" (D)
Weight	Gross Weight: 75 lbs (34 kg) Net Weight: 45 lbs (20.5 kg)
Available Color	Silver

FRONT PANEL

Buttons	Power On/Off UID button
LED	HDD activity LAN1 activity Power status System information

EXPANSION SLOTS

PCI-Express (PCIe) Configuration	Option A* 1 PCIe 5.0 x16 FH/10.5"L double-width slot 1 PCIe 5.0 x8 FHFL slot 1 PCIe 5.0 x16 FHFL double-width slot 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible) Option B* 2 PCIe 5.0 x8 FH/10.5"L slots 1 PCIe 5.0 x8 FHHL slot 1 PCIe 5.0 x16 FHFL double-width slot 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible) Option C* 1 PCIe 5.0 x16 FH/10.5"L double-width slot 2 PCIe 5.0 x16 FHFL double-width slots (*Requires additional parts, please see the optional parts list for details. For more details on PCIe slot configuration options, please refer to the system callout images above.) View AOC Options

DRIVE BAYS / STORAGE

Drive Bays Configuration	Default: Total 8 bays 8 front hot-swap 2.5" NVMe*/SAS*/SATA* drive bays Option A: Total 24 bays 24 front hot-swap 2.5" SAS*/SATA* drive bays Option B: Total 16 bays 16 front hot-swap 2.5" SAS*/SATA* drive bays Option C: Total 4 bays 4 front hot-swap 2.5" NVMe* drive bays (*NVMe/SAS/SATA 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 NVMe slots (M-key 2280/22110/25110; VROC required for RAID) View M.2 Options

SYSTEM COOLING

Fans	Up to 6 counter-rotating 60x60x56mm Fan(s)

POWER SUPPLY

	2x 1200W 2x 1300W 2x 1600W 2x 2600W 2x 2000W 2x 2000W 2x 1200W 2x 1200W Redundant (1 + 1) Titanium Level (96%) power supplies Dimension (WxHxL) 73.5 x 40 x 265 mm

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)

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.

NATCERT ISO 9001 · NATCERT ISO 14001 · NATCERT ISO 27001 · cisco · tp-link · Omada by tp-link

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-212ha-tn/datasheet/manufacturer