

TECHNICAL DATASHEET

SUPERMICRO · GPU & AI SERVERS

Supermicro 5U GPU Server AS-5126GS-TNRT2

DP AMD 5U System with 10 PCIe GPUs via PLX switch

SKU AS-5126GS-TNRT2

5U

SP5

Supermicro



FORM FACTOR

5U

MAX POWER (BASE)

509 W

HEAT OUTPUT

1,737 BTU/h

PRICE

from €24,770

CONFIGURE & QUOTE ONLINE

serverinvest.com/product/as-5126gs-tnrt2

01 Product overview

The Supermicro AS-5126GS-TNRT2 is a 5U GPU Server built on AMD EPYC 9005 with up to 6 TB of memory in 24 DIMM slots.

DP AMD 5U System with 10 PCIe GPUs via PLX switch.

The chassis accepts up to 10 GPU accelerators for AI, rendering and HPC workloads.

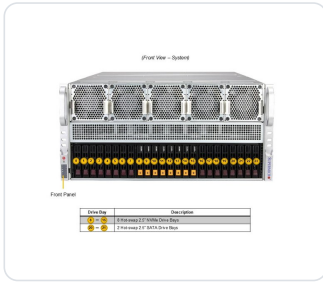
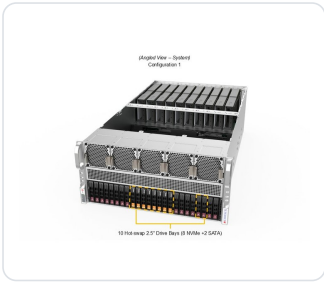
ServerInvest configures every AS -5126GS-TNRT2 to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- AMD EPYC 9005
- Up to 6 TB memory · 24 DIMM slots
- Total 10 bays 2 front hot-swap 2.5" SATA drive bays
- Up to 10 GPUs
- Power: 6x 2700W
- Networking: 2 RJ45 10GbE

KEY SPECIFICATIONS

Form factor	5U
Processor	AMD EPYC 9005
Socket	SP5
Memory	24 DIMM slots, up to 6 TB
Memory type	DDR5-6400 ECC RDIMM
Drive bays	18 (18 NVMe)
GPU	Up to 10 GPUs
Power supply	6× 2700 W
Typical power draw	4950 W
Networking	2 RJ45 10GbE
Dimensions (W×H×D)	437 × 222 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 5U GPU Server AS-5126GS-TNRT2	1
Processor	AMD EPYC 9135 - 16 Cores, 3.65/4.30GHz, 64MB Cache (200 Watt)	1
Memory	16GB 6400MT/s DDR5 ECC Registered DIMM Module	2
Warranty & support	3-year return-to-base warranty (included)	1

Base configuration from

€24,770
excl. VAT

03 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
163 W	343 W	509 W	1,737 BTU/h	0.5 kW	19%

Typical 343 W · max 509 W · single PSU rating 2700 W

Annual IT energy (24/7)	2,532 kWh
Annual facility energy (PUE 1.5)	3,798 kWh
Annual energy cost	€506 IT · €760 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.99 t (grid factor 0.26 kg/kWh)
Power supplies	6× 2700 W redundant (N+1)

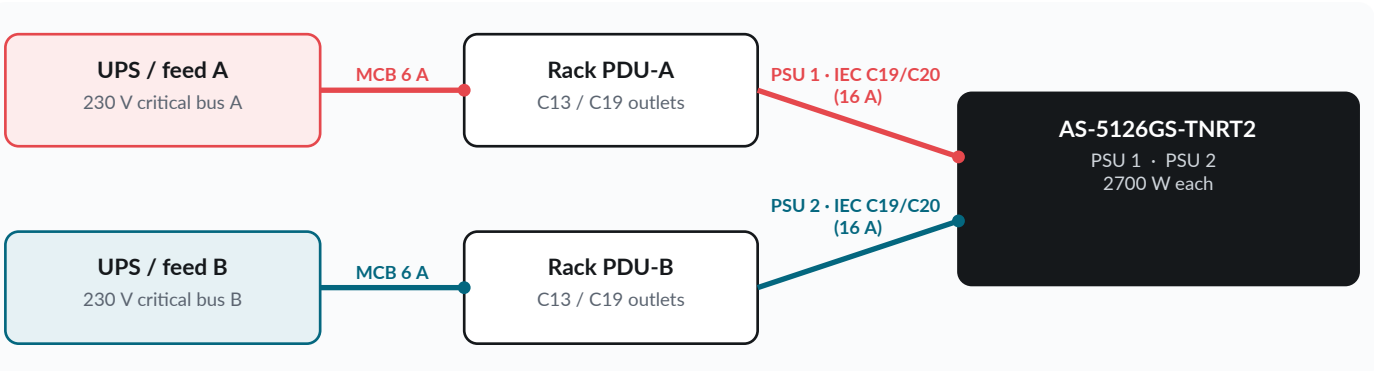
POWER BY COMPONENT

	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	117 W	182 W	260 W
CPU — AMD EPYC 9135 - 16 Cores	30 W	130 W	200 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: 2.3 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: 509 W = 1,737 BTU/h (0.5 kW).

05 Full specifications

MOTHERBOARD

Super H14DSG-O-CPU

PROCESSOR

CPU	Dual processor(s) AMD EPYC 9005/9004 Series Processors
Core Count	Up to 192C/384T

Note Supports up to 500W TDP CPUs

GPU

Max GPU Count	Up to 10 double-width GPUs
Supported GPU	NVIDIA PCIe: H100 NVL, H200 NVL (141GB), L40S, NVIDIA RTX PRO 4500 Blackwell Server Edition, NVIDIA RTX PRO 6000 Blackwell Server Edition AMD PCIe: AMD Instinct MI350P View GPU Options
CPU-GPU Interconnect	PCIe 5.0 x16 Switch Dual-Root
GPU-GPU Interconnect	NVIDIA NVLink Bridge (optional)

SYSTEM MEMORY

Memory	Slot Count: 24 DIMM slots Max Memory (1DPC): Up to 6TB 6400MT/s ECC DDR5 RDIMM (AMD EPYC 9005 Series Processor) Max Memory (1DPC): Up to 6TB 4800MT/s ECC DDR5 RDIMM (AMD EPYC 9004 Series Processor) View Memory Options
Memory Voltage	1.1V

ON-BOARD DEVICES

SATA	SATA (6Gbps)
Network Connectivity	2 RJ45 10GbE View AIOM Options View AOC Options

INPUT / OUTPUT

LAN	1 RJ45 1 GbE Dedicated BMC LAN port 2 RJ45 10 GBASE-T LAN ports
USB	2 ports (rear)
Video	1 VGA port

SYSTEM BIOS

BIOS Type	AMI 64MB SPI Flash EEPROM
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MANAGEMENT

Software	SuperCloud Composer (SCC) Supermicro Server Manager (SSM) Supermicro Update Manager (SUM) 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
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Features	Cryptographically Signed Firmware Secure Boot Secure Firmware Updates Automatic Firmware Recovery Supply Chain Security: Remote Attestation Runtime BMC Protections System Lockdown
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PC HEALTH MONITORING

CPU	7 +1 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	Turin: ESXi 8.0U3, ESXi 9.0, Oracle Linux 10.0, RHEL 9.6, RHEL 10.0, RHEL AI 3.0, Ubuntu 24.04 LTS, Windows Server 2022, Windows Server 2025 View all OS Compatibility and Certification Matrix
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CHASSIS

Form Factor	5U Rackmount
Model	CSE-528G2TS-R000NDP

DIMENSIONS AND WEIGHT

Height	8.75" (222.5 mm)
Width	17.2" (438 mm)
Depth	31" (786.1 mm)
Package	17.32" (H) x 28.34" (W) x 42.51" (D)
Weight	Gross Weight: 100 lbs (45.3 kg) Net Weight: 65.5 lbs (29.7 kg)
Available Color	Black Front & Silver Body

EXPANSION SLOTS

PCI-Express (PCIe) Configuration	Default 13 PCIe 5.0 x16 FHFL slots View AOC Options
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DRIVE BAYS / STORAGE

Drive Bays Configuration	Default: Total 10 bays 2 front hot-swap 2.5" SATA drive bays 8 front hot-swap 2.5" NVMe drive bays View NVMe Options View Drive Options
M.2	1 M.2 PCIe 3.0 x4 NVMe slot (M-key) View M.2 Options

SYSTEM COOLING

Fans Up to 10 heavy duty fans with optimal fan speed control

POWER SUPPLY

6x 2700W
6x 2700W Redundant (4 + 2) Titanium Level (96%) power supplies
Dimension (WxHxL)
73.5 x 40 x 203 mm

OPERATING ENVIRONMENT

Environmental Spec. Operating Temperature: 10°C to 35°C (50°F to 95°F)
Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)
Operating Relative Humidity: 8% to 90% (non-condensing)
Non-operating Relative Humidity: 5% to 95% (non-condensing)

ENVIRONMENTAL / RECYCLING

Recycle Return Server-End of Life Product

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/as-5126gs-tnrt2/datasheet/manufactur

