TECHNICAL DATASHEET

SUPERMICRO · EDGE & EMBEDDED

Supermicro 2U IoT Server AS-2116S-FTNRT

H14 2U Short-depth front I/O compact edge AI system with up to 6 PCIe slots and redundant PSU

SKU AS-2116S-FTNRT | 2U | SP5 | Supermicro

FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
2U	349 W	1,191 BTU/h	from €5,310

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

CONFIGURE & QUOTE ONLINE
serverinvest.com/product/as-2116s-ftnrt

01 Product overview

The Supermicro AS-2116S-FTNRT is a 2U IoT Server built on AMD EPYC 9005 with up to 3 TB of memory in 12 DIMM slots.

H14 2U Short-depth front I/O compact edge AI system with up to 6 PCIe slots and redundant PSU.

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

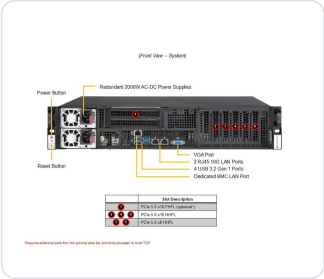
ServerInvest configures every AS -2116S-FTNRT to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

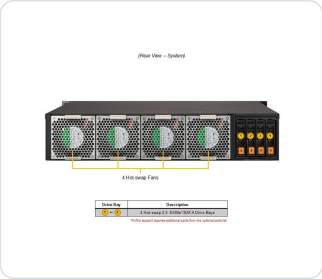
HIGHLIGHTS

- AMD EPYC 9005
- Up to 3 TB memory · 12 DIMM slots
- Total 4 bays 4 front hot-swap 2.5" NVMe*/SATA drive bays
- Up to 1 GPUs
- Power: 2x 2000W
- Networking: 2 RJ45 10GBASE-T with Broadcom BCM57416

KEY SPECIFICATIONS

Form factor	**2U**
Processor	**AMD EPYC 9005**
Socket	**SP5**
Memory	**12 DIMM slots, up to 3 TB**
Memory type	**DDR5-6400 ECC RDIMM**
Drive bays	**4 (4 NVMe)**
GPU	**Up to 1 GPUs**
Power supply	**2× 2000 W**
Typical power draw	**900 W**
Networking	**2 RJ45 10GBASE-T with Broadcom BCM57416**
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 IoT Server AS-2116S-FTNRT**	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 **€5,310** excl. VAT

03 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
91 W	231 W	349 W	1,191 BTU/h	0.3 kW	17%

Typical 231 W · max 349 W · single PSU rating 2000 W

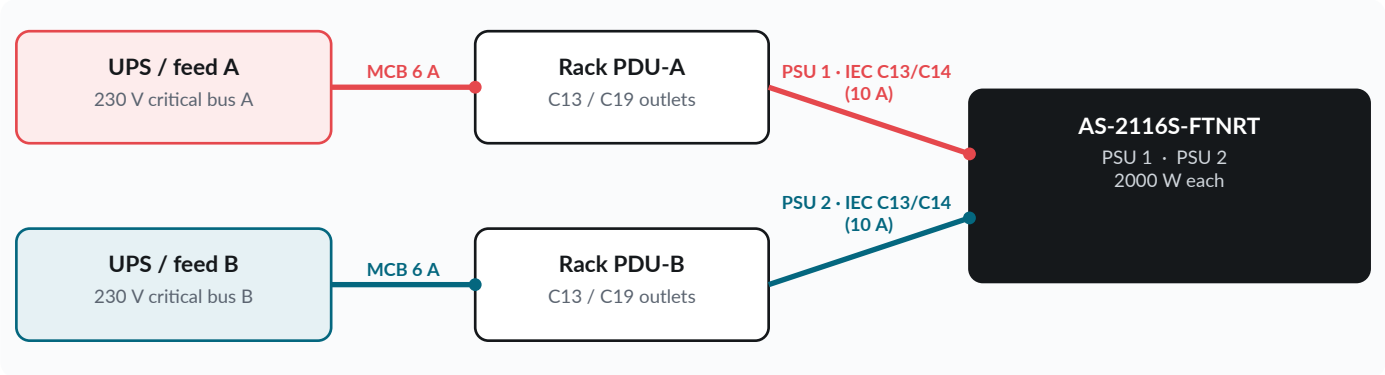
Annual IT energy (24/7)	1,656 kWh
Annual facility energy (PUE 1.5)	2,484 kWh
Annual energy cost	€331 IT · €497 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.65 t (grid factor 0.26 kg/kWh)
Power supplies	2× 2000 W redundant (N+1)

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	50 W	77 W	**110 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 C13/C14 (10 A) power cords.
- Maximum current per feed: 1.6 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: 349 W = 1,191 BTU/h (0.3 kW).

05 Full specifications

MOTHERBOARD	
	Super H14SSL-NT

PROCESSOR	
CPU	Single processor(s) AMD EPYC 9005 Series Processors
Core Count	Up to 192C/384T; Up to 384MB Cache

Note	Supports up to 500W TDP CPUs (Air Cooled)* *Air Cooled CPUs with TDP over 250W only supported under specific conditions. Contact a Supermicro representative for details.

GPU

Max GPU Count	Up to 1 double-width or 5 single-width GPUs
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 6400MT/s ECC DDR5 RDIMM View Memory Options
Memory Voltage	1.1V

ON-BOARD DEVICES

Network Connectivity	2 RJ45 10GBASE-T with Broadcom BCM57416 View AOC Options

INPUT / OUTPUT

LAN	1 RJ45 1 GbE Dedicated BMC LAN port 2 RJ45 10 GbE LAN ports
USB	4 USB 3.2 Gen1 Type-A ports
Video	1 VGA port

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!

SECURITY

Hardware	Trusted Platform Module (TPM) 2.0

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

CERTIFICATIONS

Operating Systems	Turin: RHEL 10.0, Windows Server 2022, Windows Server 2025 View all OS Compatibility and Certification Matrix

CHASSIS

Form Factor	2U Rackmount
Model	CSE-223M-R000LPNDP

DIMENSIONS AND WEIGHT

Height	3.5" (89 mm)
Width	17.2" (437 mm)
Depth	17.72" (450 mm)
Package	10.47" (H) x 28.35" (W) x 21.85" (D)
Weight	Gross Weight: 23 lbs (10.43 kg) Net Weight: 17 lbs (7.7 kg)
Available Color	Black

FRONT PANEL

Buttons	Power On/Off UID button
LED	HDD activity LAN1 activity LAN2 activity Power status System information

EXPANSION SLOTS

PCI-Express (PCIe) Configuration	Option A 1 PCIe 5.0 x16 (in x16) FHFL double-width slot Default 3 PCIe 5.0 x16 (in x16) HHFL slots 2 PCIe 5.0 x8 (in x8) HHFL slots View AOC Options

DRIVE BAYS / STORAGE

Drive Bays Configuration	Default: Total 4 bays 4 front hot-swap 2.5" NVMe*/SATA drive bays (*NVMe support may require additional storage controller and/or cables, please see the optional parts list for details) View Drive Options
M.2	2 M.2 PCIe 5.0 x4 NVMe/SATA slots (M-key 22110(default)/2280) View M.2 Options

SYSTEM COOLING

Fans	Up to 4x 8cm Fan(s)
Air Shroud	1 per node Air Shroud

POWER SUPPLY

2x 2000W
2x 2000W Redundant (1 + 1) Titanium Level (96%) power supplies
Dimension (WxHxL)
73.5 x 40 x 185 mm

OPERATING ENVIRONMENT

RoHS	RoHS Compliant
Environmental Spec.	Name: A2 Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -30°C to 60°C (-40°F to 140°F) Operating Relative Humidity: 8% to 80% (max 21° DP; non-condensing) Non-operating Relative Humidity: 8% to 90% (max 38° DP; 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.

ISO 9001 · ISO 14001 · 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/as-2116s-ftnrt/datasheet/manufacturer