

Fanless Server Mini - AMD Epyc 4004

Edge Servers

Fanless • Passively cooled

IP50

Fanless rugged server format for edge computing



Product Overview

The FSM-EP4S-50 is a compact, fanless, server-grade edge computing platform designed for environments where high compute density, reliability, and long term stability are required, but where traditional rack servers are impractical.

Powered by the AMD EPYC 4004 series, the FSM-EP4S-50 delivers true server-class performance at the edge, supporting high core counts, large ECC memory capacity, and enterprise networking. Its in-house designed, passively cooled aluminum chassis enables completely silent, maintenance-free operation while maintaining stable performance in industrial and constrained environments.

With support for virtualisation platforms, high-speed NVMe storage, and dedicated remote management, the FSM-EP4S-50 is ideally suited to edge server, industrial IT, and micro-data-centre deployments where reliability and serviceability are critical.

Typical Applications

Edge virtualisation & micro-data centres: Consolidation of services using VMware ESXi or container platforms at the network edge.

Industrial & manufacturing IT: Reliable server infrastructure for factories, warehouses, and OT environments where dust, vibration, or temperature variation are present.

Infrastructure & utilities: Local compute for substations, control rooms, and remote facilities with limited physical access.

Data-intensive edge workloads: Video management systems, analytics back-end nodes, and sensor aggregation platforms requiring high memory and fast NVMe storage.

Key Specifications

- Processor: AMD Epyc 4464P
- Upto 192GB DDR5-5600 memory
- Dual LAN
- Operating Range: -10C to 50C
- Maintenance free

Key benefits of FANLESS and RUGGED computers



No fans obviously means no noise, but it's not the only benefit!



No fans allow an important decrease in power consumption, making our products more sustainable!



A fanless computer eliminates the risk to draw in dust and dirt from the environment, the cause of potential failures and costly downtime.



The absence of moving parts enable our products to resist shocks and vibrations, for an increased reliability.



They are built to withstand harsh and constrained working conditions.



High Ingress Protection (IP) rating, indicating the protection level of products against both solid and liquids in electrical enclosures.



The in-house designed and milled aluminium chassis is optimized for efficient passive cooling and durability. Its conception proved their reliability in extended operating temperatures.



The aluminium used for the chassis production is repurposed and recycled, and the production waste is recycled too!

SOLUTION FAMILY

Tranquil IT - Edge Servers

This platform is delivered within the Tranquil IT solution family by 2CRSi Edge. Configuration options including OS imaging, software preload, and customer branding are available without altering the certified platform baseline

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I/O Rear

2x USB 3.2, 1x HDMI, 2x 10GbE, 1x IPMI RJ45, 5.5x 2.5mm Jack 12v power inlet, UID

Technical Specification

Processor	AMD Epyc 4464P - 12 Cores / 24 Threads - 3.7 GHz		
Memory	Slots: 4x DIMM Slots MAX Capacity: 192GB Type: DDR5 5600 ECC Support: Yes	Storage	Storage 1 Max: 7.98TB 2 x M.2 2280 (PCIe5.0 x4)
Graphics Controller	ASPEED AST2600	Graphics Interface	1 x HDMI
Network Interface	2x 10GbE (Intel X710) or 2x 10GbE RJ45 (Broadcom BCM57416)	Network Options	-
Network Feature	Wake-On-Lan PXE teaming; VLAN and LLDP via NIC/firmware	Remote Management	1 RTL8211F x RJ45 for dedicated management GLAN
Hardware Monitoring	Watchdog On-Board	Supported OS	Windows: Windows Server 2022 (64 bit) Linux: RHEL 9.3/9.4 (64 bit), SUSE SLES 15.5 (64 bit), Ubuntu 20.04.6/22.04.4 (64 bit) Hypervisor: VMware ESXi 7.0 U3g / 8.0 U2b
Encryption	TPM Header 1 x (13-pin)		
Power Input	DC Jack connector		
Input Voltage	12v		
Consumption	30-105 W (workload dependent)		

Physical Specification

I/O Front	-	LED Front	-
LED Rear	Power, UID	COM Port Option	-
Operational	-10°C to 50°C (14°F to 122°F)	Storage Temp	-40°C to 70°C (-40°F to 158°F)
Maximum relative humidity	20-90%	Cooling Type	Passive cooling
Size	67 x 221 x 246 mm	Weight	4.105 kg
Accessories	120w 12V power supply, cable retainer, earth	Optional Accessories	Rack mount, wall mount and anti vibration
Certifications		Warranty	3 Years

Configuration options (OS, branding, software preload) are available and do not alter the certified platform baseline. For bespoke requirements requiring engineering change, enquire about Tranquil Studio.