

Fanless Mini - METIS - IP66 (12V)

AI Compute

Fanless • Passively cooled

IP66

Waterproof fanless small-form-factor edge AI system, optimized for rugged industrial and outdoor environments.



Product Overview

The FM-METIS-66-12V extends the power of the Axelera Metis AI platform into outdoor and harsh-environment deployments. Combining up to 214 TOPS of AI acceleration with a sealed IP66-rated enclosure, it is designed to run AI inference directly where data is generated, enabling advanced computer vision workloads including object detection, classification, tracking, segmentation, and video analytics without relying on cloud connectivity. Powered by the Axelera Metis AIPU and an ARM-based host processor, the platform delivers the on-device performance required for real-time analytics while reducing bandwidth usage, keeping sensitive data on-site, and maintaining operation even when network connectivity is limited. Typical applications include traffic monitoring, security, logistics, and other fixed outdoor edge AI deployments.

Its IP66-rated enclosure is dust-tight and protected against powerful water jets, allowing installation in exposed outdoor and wash-down environments without the need for an additional cabinet. Combined with a fully fanless, passively cooled architecture and no moving parts, the platform provides reliable long-term operation in roadside, perimeter, and industrial locations where ruggedness, low maintenance, and continuous edge AI performance are essential.

Key Specifications

- Processor: Rockchip RK3588 - 8 Core (4 x Cortex-A76 + 4 x Cortex-A55)
- Operating Range: 0C to 60C
- Dual LAN
- IP66 Weather Proof
- Designed for continuous operation

Key benefits of FANLESS and RUGGED



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, indication 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 AI - AI Compute platforms

Tranquil AI by 2CRSi Edge combines best-in-class AI processing technology with industrial-grade engineering, enabling organisations to deploy powerful AI solutions outside the datacentre. Designed and assembled in the UK, Tranquil AI platforms transform AI development hardware into deployable production systems suitable for industrial, transport, security, smart-city and infrastructure applications. Fanless operation, rugged construction and configurable deployment options allow customers to move from proof-of-concept to production without redesigning their AI infrastructure.

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I/O Rear

IP68 Power Socket, Behind Panel Entry: 2x RJ45 for LAN, 4x USB 3.1, 1x USB-C, 1x HDMI, Micro SD Slot

Technical Specification

Processor	Rockchip RK3588 (ARM-based) – 8 Core (4 x Cortex-A76 + 4 x Cortex-A55) – up to 2.4 GHz		
Memory	Capacity: 16GB Type: LPDDR4X ECC Support: No	Storage	Included: 64 GB onboard eMMC Storage 1 Max (option): 8TB 2.5" SATA SSD Storage 2 (option): MicroSD Card Slot
AI Accelerator	Axelera Metis AIPU	AI Performance	214 TOPS
Graphics	ARM Mali-G610 GPU (integrated)	Graphics	1 x HDMI 2.0 - 4096 x 2160 @ 60Hz
Network Interface	2x Gigabit LAN	Network Options	Optional Wi-Fi or 4G/LTE connectivity via internal M.2
Network Feature	Wake-on-LAN PXE	Encryption	ARM TrustZone
Hardware Monitoring	Watchdog On-Board	Supported OS	Yocto-based Linux OS Docker Support
Power Input	IP68 Buccaneer 4000 3-pin Power Socket		
Input Voltage	12V		
Consumption	9-20w		

Physical Specification

I/O Front	Power/reset switch	LED Front	Power
Extra IO	GPIOs, ADC, I2C, SPI	COM Port Option	UART
Operational Temp	0C to 60C (32F to 140F)	Storage Temp	-20C to 70C (-4F to 158F)
Maximum relative humidity	5% to 95%	Cooling Type	Passive Cooling
Size	60 x 208 x 236 mm	Weight	3.4 KG
Accessories	Power Connector	Optional Accessories	Wireless Antenna, Mounting options (Desk, Wall or Anti-Vibration plate)
Certifications	CEUKCARoHSFCCWEEE	Warranty	3 Years