FANLESS EDGE AI PLATFORM

Edge Processing Unit

High-Performance, Fanless Edge Compute Platform

i3 – i9 CPU | GPU / Non-GPU | 24V DC | Isolated CAN & GPIO | Ubuntu Linux | BIS · RoHS



Image for reference only. Actual size, colour and appearance may vary.

The **Edge Processing Unit** is a fanless edge computer powered by advanced processor platforms. Engineered specifically for automated oversight, traffic management and AI video analytics in field environments, it provides rich I/O connectivity, magnetically isolated interfaces and expandable wide-temperature3 storage to ensure continuous 24/7 reliability.

KEY HIGHLIGHTS

Fanless, sealed design
Full-body aluminium heatsink — no moving parts for 24/7 field duty

i3 to i9 processing
Scalable CPU options with DDR4 / DDR5 memory

Isolated industrial I/O
Isolated CAN Bus and 16-bit GPIO for field devices

GPU-ready
Available in GPU and non-GPU configurations for AI workloads

TARGET APPLICATION SCENARIOS

Intelligent Traffic Management)
Edge processing for ANPR, red-light violation detection and traffic flow monitoring.

Smart City Surveillance
Real-time incident detection, crowd density monitoring and AI video summarization.

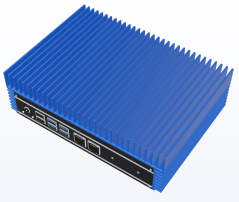
Transit Network Security
On-board and station-level video surveillance with anti-vibration tolerance.

Industrial Automation
Automated visual inspection, access control and an edge-to-cloud analytics bridge.

PRODUCT VIEWS



Rear view — industrial I/O



Finned aluminium heatsink

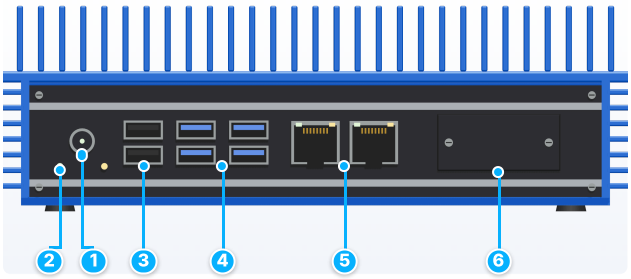


Wall-mount bracket option

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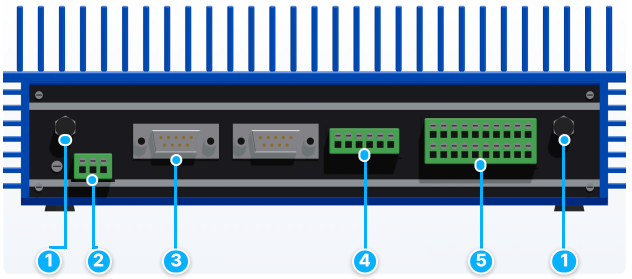
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Front Panel



1. Power button
2. Status LEDs
3. 2× USB 2.0
4. 4× USB 3.2 Gen2
5. 2× Gigabit Ethernet (RJ45)
6. Storage access cover (M.2)

Rear Panel



1. Antenna ports
2. 24V DC-in + ground
3. 2× COM (RS232/422/485)
4. 2× isolated CAN 2.0B
5. 16-bit isolated GPIO

TECHNICAL SPECIFICATIONS

SPECIFICATION CATEGORY	DETAILED FEATURE & HARDWARE DESCRIPTION
COMPUTE	
Processor System	i9 / i7 / i5 / i3 Processors
System Memory	DDR4 / DDR5
Graphics / Video	UHD Graphics
GPU Support	Optional – available in GPU and non-GPU configurations
CONNECTIVITY & I/O	
Ethernet Network	2× 10/100/1000 Mbps RJ45 Gigabit Ethernet ports
Serial Communications	2× RS232 / RS422 / RS485 COM ports
Industrial Bus	2× CAN Bus 2.0B interfaces with isolation protection
Digital I/O (GPIO)	16-bit isolated GPIO (8-in / 8-out) terminal block
USB Connectivity	4× USB 3.2 Gen2, 2× USB 2.0 external connectors
STORAGE & EXPANSION	
Storage Expansion	M.2 M-Key (NVMe / SATA SSD)
Mini PCIe / Wireless	1× Full-size Mini PCIe slot
SYSTEM & SOFTWARE	
Watchdog Timer	Programmable 255-level timer interval (1 to 255 seconds)
Power Input	DC IN 24V
Operating System	Linux (Ubuntu)
ENVIRONMENT, COMPLIANCE & PHYSICAL	
Storage Humidity	5% to 95% non-condensing relative humidity
Certifications	BIS Certified, RoHS Compliant, ISO
Physical Dimensions	230 mm (L) × 165 mm (W) × 71.5 mm (H)
Mounting Options	Desk Mount / Wall Mount / DIN-Rail Mounting

NOTES

1. *All specifications are customizable and shall be supplied in accordance with the approved solution design and computing requirements.*
2. *Specifications are subject to change without prior information at the sole discretion of the OEM.*
3. *Undertaking / Certificate issued separately in case required for higher temperature ratings.*
4. *Images are for reference purposes only. Actual size, colour and appearance may vary as per exact specifications.*

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