

Embrace Edge AI, Empower Industrial Digitalization



EC3320 Series AI Edge Computer

· Strong Computing

· High Security

· High Reliability

· Cloud-Managed

1. Product Overview

EC3320 is a high-performance AI edge computer built for industrial local computing, real-time decision-making, and secure cloud-connected operations.

Key features:

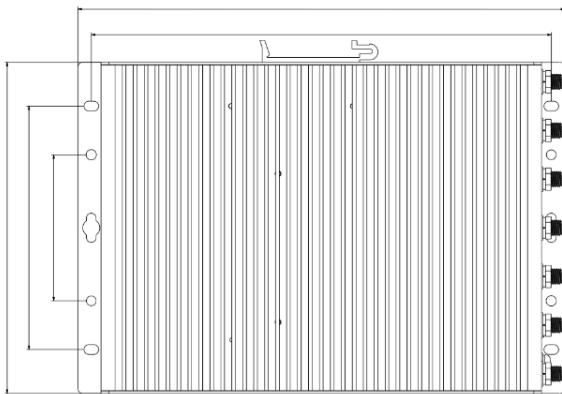
- **High computing capability:** RK3588-based platform with multi-core CPU, high-performance GPU, and up to 6 TOPS NPU
- **Scalable AI acceleration:** Supports Hailo-8 module expansion up to 26 TOPS
- **Rich industrial interfaces:** 3×GE, serial, CAN, DI/DO, HDMI, USB3.0, audio I/O
- **Secure and reliable:** Secure Boot, TPM2.0 (Optional), watchdog, dual SIM failover
- **Cloud-managed operations:** DeviceLive remote monitoring and edge app/container management

Core Technical Specifications

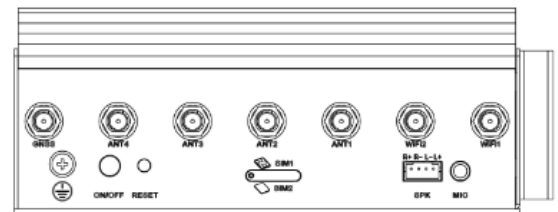
Technical Indicator	Specification
Cellular Network	5G NR / 4G Cat6 (model-dependent)
Network Features	Dual SIM backup, multi-level link detection, auto-redial
Security (TPM2.0 Optional)	Secure Boot, TPM2.0
Cloud Management	DeviceLive, HTTP/HTTPS/SSH remote management
Data Acquisition	Modbus RTU/TCP, EtherNet/IP, OPC UA, DNP3.0, BACnet, CNC
Open Platform	Linux with edge app/container management
CPU	4×Cortex-A76 + 4×Cortex-A55, up to 2.4GHz
GPU	Mali-G610 MC4

Technical Indicator	Specification
NPU	Up to 6 TOPS (INT8), Hailo expansion up to 26 TOPS
Memory / Storage	8GB / 64GB eMMC
Interfaces	3×GE, 2×RS232 + 2×RS485, CAN, DI/DO, USB3.0, HDMI, MIC/SPK
Power Input	9~36V DC

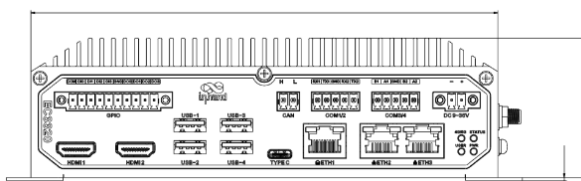
2. Product Dimensions



Front View



Side View



Interface Diagram

Note:

1. All dimensions are in millimeters (mm).
2. All dimensions are approximate and for reference only.
3. Drawings must not be used for manufacturing.
4. Dimensions are subject to part and manufacturing tolerances.
5. Specifications may change without prior notice.

3. Hardware Specifications

Category/Parameter	Specification
Hardware Platform	
CPU	Quad Cortex-A76 + Quad Cortex-A55, up to 2.4GHz
GPU	Quad-core Mali-G610 MC4 high-performance GPU
NPU	Up to 6 TOPS (INT8) Support INT4/INT8/INT16 mixed operations and framework switching of TensorFlow / MXNet / PyTorch / Caffe
RAM	8GB
FLASH	64GB eMMC
Connectivity & Interfaces	
Ethernet Ports	3×10/100/1000Mbps GE
I/O Ports	10pin industrial green terminal (4IN, 4OUT, 2GND)
Serial Ports	2×RS232 + 2×RS485, industrial terminal
CAN	1×CAN2.0
Buttons	1×Power, 1×Reset
SIM Card Holders	2×Nano SIM
LED Indicators	Power, Status, 4G, USER
USB	4×USB3.0

Category/Parameter	Specification
Expansion Interfaces	1x M.2(Supports SATA3.0 SSD, supports 2242 size) 1x M.2(Supports Hailo-8 M.2 module, up to 26TOPs computing power)
HDMI	2×HDMI2.0
MIC	Supported
SPK	Supported
WiFi	STA, 802.11ac/a/b/g/n, 2.4G/5G dual band
Bluetooth	BLE5.0
GPS	Supported (requires cellular module support)
Power & Power Consumption	
Input Voltage	9~36V DC (2pin green industrial terminal, with flange)
Power Interface	Industrial DC terminal input
Mechanical Specifications	
Product Dimensions	180×136×54mm
Mounting Method	DIN-rail / wall mounting
Protection Rating	IP40
Enclosure & Heat Dissipation	Metal enclosure, fanless design
TPM (Optional)	TPM2.0
Environment & Certifications	

Category/Parameter	Specification
Storage Temperature	-40~85°C
Operating Temperature	-20~60°C
Environmental Humidity	5~95% RH (non-condensing)
Physical Characteristics	IEC60068-2-27 shock resistance IEC60068-2-6 vibration resistance IEC60068-2-32 drop resistance
EMC Standard	EN61000-4-2, level 3, Static EN61000-4-3, level 3, Radiation Electric Field EN61000-4-4, level 3, Pulsed Electric Field EN61000-4-5, level 3, Surge EN61000-4-6, level 3, Conducted Disturbance Immunity EN61000-4-8, Power Frequency Field Resistance, horizontal / vertical 400A/m (>level 2) EN61000-4-12, level 3, Shock Wave Resistance

4. Software Specifications

Category/Parameter	Specification
Operating System	
Operating System	Linux
Network Features	
Network Access	5G NR / LTE Cat6 (model-dependent), Ethernet
Security	
Secure Boot	Supported

Category/Parameter	Specification
Reliability	
Link Detection	Multi-level link detection with auto-redial
Built-in Watchdog	Embedded watchdog
Dual SIM Switchover	Supported
Data Acquisition Protocols (DSA)	
Industrial Protocols	Modbus RTU Master/Slave, Modbus TCP Master/Slave, EtherNet/IP, ISO on TCP, OPC UA Client/Server, Mitsubishi MC 3C/3E/3C OverTCP, Mitsubishi CPU Port, FINSUDP, HostLink, PPI
Electricity Protocols	DLT645-2007, IEC101/104, DNP3.0
Other Protocols	BACnet, CNC
Network Management	
Upgrade Method	Supports patent upgrade mechanism, local or remote firmware upgrade
Log Functions	Local/remote logs
Remote Management	DeviceLive / HTTP / HTTPS / SSH remote management
DeviceLive Cloud	Supports cloud-based parameter configuration, container management, application and firmware management

5. Ordering Information

Model Rule

Model code: EC3320-<WMNN>-[XY]

<WMNN>: Cellular Type & Frequency Band

[XY] (Optional): AI Expansion Module

Model List

Model	Region	Cellular Bands	Ethernet/Serial	GPS
EC3320-NRQ3	Global	5G NR NSA/SA: n1/n2/n3/n5/n7/n8/n12/n20/n 25/n28/n38/n40/n41/n48/n6 6/n71/n77/n78/n79 LTE FDD: B1/B2/B3/B5/B7/B8/B12(B17) /B13/B14/B18/B19/B20/B25/B 26/B28/B29/B30/B32/B66/B 71 LTE TDD: B34/B38/B39/B40/B41/B42/ B48 LAA: B46 WCDMA: B1/B2/B3/B4/B5/B6/B8/B19	3×1000Mbps; 2×RS232 + 2×RS485	YES

EC3320-FQ09	Global	4G CAT6 LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/ B13/B14/B17/B18/B19/B20/B2 5/B26/B28/B29/B30/B32/B6 6/B71 LTE TDD: B34/B38/B39/B40/B41/B42/ B43/B46(LAA)/B48(CBRS)	3×1000Mbps; 2×RS232 + 2×RS485	YES
EC3320-EN00	No Cellular	No Cellular	3×1000Mbps; 2×RS232 + 2×RS485	NO

Memory/Storage: 8GB/64GB

Note: All models support Wi-Fi/BT/CAN/MIC/SPK/IO.

AI Expansion Module (Optional)

[XY] P/N Code	Feature
—	None
H8	Hailo-8, M.2 Key B+M 2280