

VBOX-3132 Series

Intel Atom® x7000RE DIN-rail PoE Fanless Rugged Edge Computer



- Industrial Grade Amston Lake Processor and Ethernet Controller
- Commercial Grade Twin Lake Processor SKU Available
- 1 x 2.5GbE, 4 x PoE Ports for IoT Devices Connectivity
- 1 x Built-in CAN 2.0 for Vehicle Device Communication
- Dual NVMe SSD Support for NVR Applications
- Built-in Watchdog and Smart Power Management for System Health Monitoring
- Supports DIN-rail and Wall-mount Installation

Edge AI Application



Dual Nano SIM for Telecom Provider Selection

The system can select a different telecom provider depending on signal quality or other areas.



1 x 2.5GbE for Data Uplink Transmission

High-speed Ethernet for data backup or uplink network expansion



1 x CAN 2.0 for Vehicle Connection

For the data communication of vehicle equipment



UPS : The optional backup battery for emergency power loss situations



Watchdog : Monitoring the system status



4 x PoE for IP Camera and ADAS

For high-resolution image capture or LiDAR connections



9 - 60VDC for 12/24/48V Power System

A wide input range with smart power management for EV or any readily 12V/24V/48V DC power system

Specifications

System

Processor

- Intel Atom® x7835RE Octa-core Processor up to 3.6 GHz
- Intel Atom® x7433RE Quad-core Processor up to 3.4 GHz
- Intel® Processor N150 Quad-core Processor up to 3.2GHz

Graphics

- Intel® UHD Graphics

Memory

- 1 x SO-DIMM DDR5 up to 16 GB

Security

- 1 x TPM 2.0

Watchdog

- Auto reset for unresponsive system

Interface

Video

- 1 x HDMI® with support for 4K@60Hz as specified in HDMI 2.0b

Audio

- 1 x Line-out, 1 x Mic-in (Optional)

Ethernet

- 1 x 2.5GbE from I226-IT via RJ-45 or M12 X-code for PoE model
- 4 x GbE* from Marvell Ethernet Switch w/ PoE (PSE Class 3: 15W) via RJ-45 or M12 X-code

* Share with 1GbE bandwidth; Power budget: 60W

**Non-PoE model: 2 x 2.5GbE

CAN

- 1 x CAN 2.0

USB

- 2 x USB 3.2, 2 x USB 2.0

DIO

- 8 x DI (9-60VDC), 4 x DO (12VDC/100mA)

Serial Port

- 2 x RS-232/422/485 ports, expandable with 4 optional COM ports

Internal Expansion

M.2

- 1 x M.2 3042/3052 Key B for WWAN with dual Nano SIM support
- 1 x M.2 2230 Key E for Wi-Fi/BT

Storage

Type

- 1 x M.2 2280 Key M for NVMe SSD
- 1 x M.2 2280 Key M for NVMe/SATA SSD

Power

Power Input

- DC 9-60V

Power Protection

- OCP, OVP, surge protection, reversed polarity protection

Power Management

- Ignition detection, Smart Power Management

Battery Backup Unit (BBU)

- Backup battery for system power backup

* Non-PoE model only

Software

Operating System

- Windows 11 IoT Enterprise LTSC, Ubuntu 22.04/24.04 LTS

Certification / Compliance

- CE, FCC Class A, UKCA, E-Mark

Environmental

Operating Temp.

- x7000RE Processor : -40°C ~ 70°C (-40°F ~ 158°F) with 0.6 m/s airflow
- N-series Processor: -30°C ~ 70°C (-22°F ~ 158°F) with 0.6m/s airflow

* Operating temp. varies by accessories installed.

Storage Temp.

- -40°C ~ 80°C (-40°F ~ 176°F)

Relative Humidity

- 10% RH – 90% RH (non-condensing)

Vibration

- IEC 60068-2-64, random, 2.5G@5~500Hz, 1hr/axis
- MIL-STD-810H, Method 514.8, Procedure I, Category 4

Shock

- MIL-STD-810H, Method 516.8, Procedure I, trucks and semi-trailers=15G (11ms)

Mechanical

Construction

- Aluminum Alloy with Fanless Design

Antenna

- 6 x SMA connector panel mount hole

Mounting

- DIN rail, Wall

Net Weight

- 1.90kg (4.19 lb)

Dimensions (L x W x H)

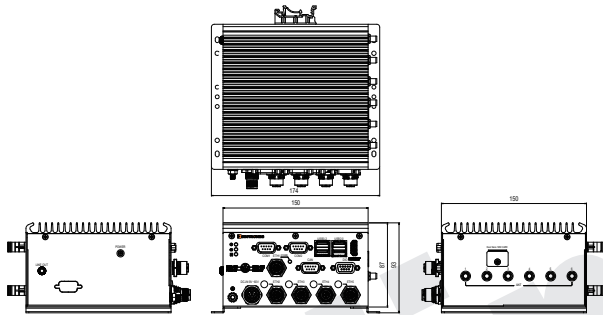
- RJ-45 model: 150 x 150 x 65 mm (5.91 x 5.91 x 2.56 in.)
- M12 PoE model: 150 x 150 x 87 mm (5.91 x 5.91 x 3.43 in.)

Ingress Protection

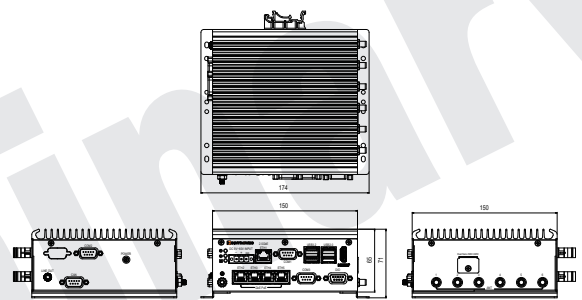
- IP40

Dimensions

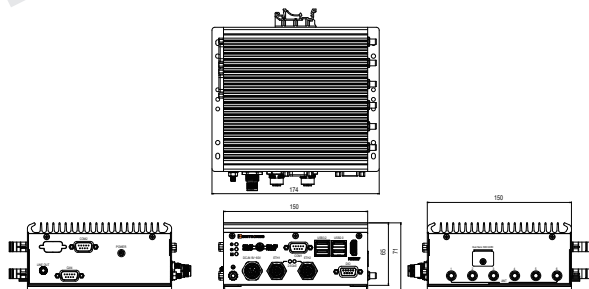
VBOX-3132P-M12X



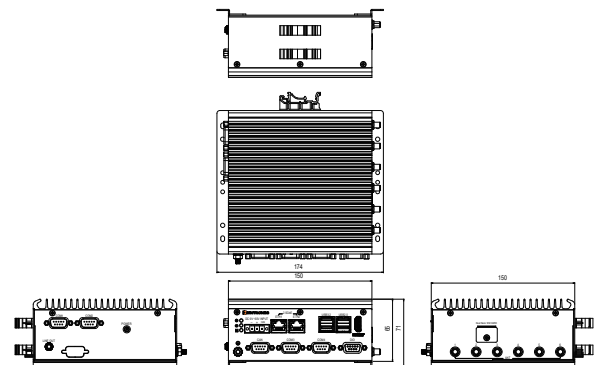
VBOX-3132P



VBOX-3132-D25-M12X



VBOX-3132-D25



Model Name	RJ-45 Interface	M12 Interface	2.5GbE	GbE	4-Port PoE	Option BBU	Dimension (L x W x H)
VBOX-3132P-M12X-A8	—	✓	1	4	✓	—	150 x 150 x 87 mm (6 x 6 x 3.43 in)
VBOX-3132P-M12X-A4	—	✓	1	4	✓	—	150 x 150 x 87 mm (6 x 6 x 3.43 in)
VBOX-3132P-A8	✓	—	1	4	✓	—	150 x 150 x 65 mm (6 x 6 x 2.56 in)
VBOX-3132P-A4	✓	—	1	4	✓	—	150 x 150 x 65 mm (6 x 6 x 2.56 in)
VBOX-3132-D25-M12X-A8	—	✓	2	—	—	✓	150 x 150 x 65 mm (6 x 6 x 2.56 in)
VBOX-3132-D25-M12X-N4	—	✓	2	—	—	✓	150 x 150 x 65 mm (6 x 6 x 2.56 in)
VBOX-3132-D25-N4	✓	—	2	—	—	✓	150 x 150 x 65 mm (6 x 6 x 2.56 in)

Ordering Information

Model Number	VBOX-3132P	VBOX-3132P-yyy-zz (yyy=M12X=M12 interface, yyy = Empty=RJ-45 interface; zz=A8=Intel Atom® x7835RE, zz=A4=Intel Atom® x7433RE)
	VBOX-3132-D25-M12X	VBOX-3132-D25-M12X-zz (zz=A8=Intel Atom® x7835RE, zz=N4=Intel® Processor N150)
	VBOX-3132-D25	VBOX-3132-D25-zz (zz=N4=Intel® Processor N150)
Description	VBOX-3132P	Intel Atom® x7000RE 4-Port PoE M12/RJ-45 DIN rail Rugged Edge Computer
	VBOX-3132-D25-M12X	Intel Atom® x7000RE Dual 2.5GbE M12 DIN rail Rugged Edge Computer (BBU for Option)
	VBOX-3132-D25	Intel® N-series Processor Dual 2.5GbE RJ-45 Fanless Edge Computer (BBU for Option)
State of Origin	Made in Taiwan	

Optional Accessories

Memory	DDR5 SO-DIMM 16GB
Storage	M.2 2280 NVMe SSD 256GB~2TB
Wi-Fi	M.2 2230 Wi-Fi Module
WWAN	M.2 3042/3052 WWAN Modem
GNSS	M.2 2242 GNSS Module
Battery (BBU)	BAT-2300v2 (Operating Temp. : -20°C ~ 60°C (-4°F ~ 140°F) (only for non PoE model)
Power Adapter	12VDC, 60W for non-PoE model; 12VDC, 120W/160W for PoE model

All specifications are subject to change without notice.