

# VBOX-3132 Series

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



- Industrial Grade Amston Lake Processor and Ethernet Controller
- Intel® Twin Lake Processor SKU Available
- 1 x 2.5GbE, 4 x PoE Ports for IoT Devices Connectivity
- 1 x Built-in CAN FD 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

## Traffic and Transportation Surveillance



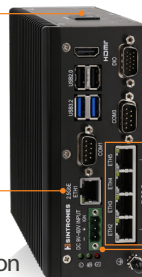
### Dual Nano SIM for Telecom Provider Selection

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



### 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



### 1 x CAN FD 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

## 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® Twin Lake N355 Core™ 3 Octa-core Processor up to 3.9 GHz\*
- Intel® Twin Lake N150 Quad-core Processor up to 3.2GHz

\*Project-based SKU

#### 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

\*\*\*M12 X-code cable is not included in the package

#### CAN

- 1 x CAN FD

#### USB

- 2 x USB 3.2, 2 x USB 2.0

#### DIO

- 8 x DI (5-48VDC), 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 input for PoE models is recommended to be 24V or above.

#### 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 24.04 LTS

### Certification / Compliance

- CE, FCC Class A, UKCA, E-Mark, EN 62368-1, EN 50155, EN 45545-2 (R25)

## 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
- \*The x7000RE processor for non-PoE models can operate up to 75°C (167°F), the processor performance may be limited.

\*\* Operating temp. varies by the 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

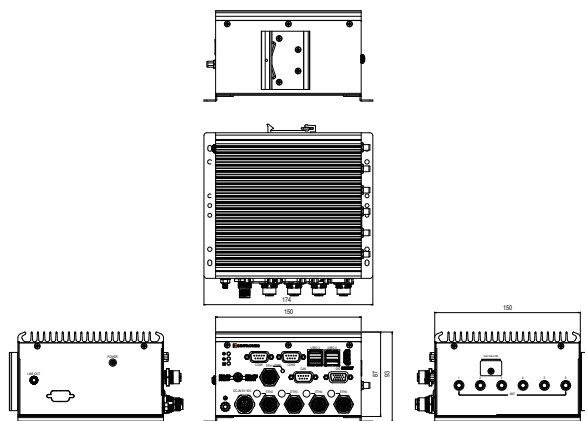
- RJ-45 PoE model: 1.5 kg (3.31 lb)
- M12 PoE model: 1.79 kg (3.95 lb)

### Dimensions (L x W x H)

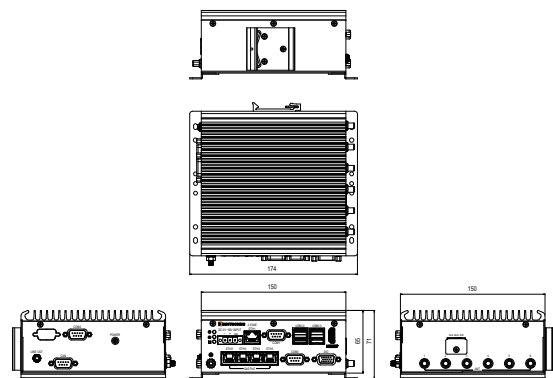
- RJ-45 model: 150 x 150 x 65 mm (5.91 x 5.91 x 2.56 in.)
- M12 PoE model: 150 x 150 x 87 mm (5.91 x 5.91 x 3.43 in.)

## Dimensions

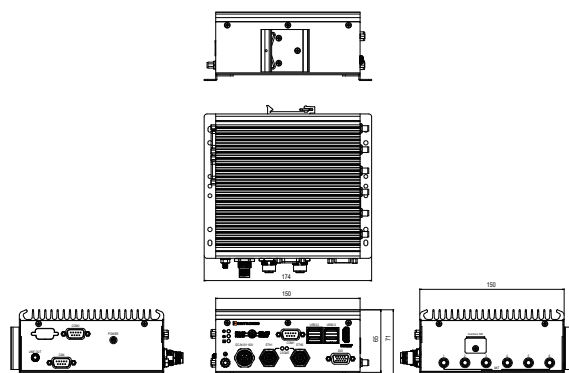
VBOX-3132P-M12X



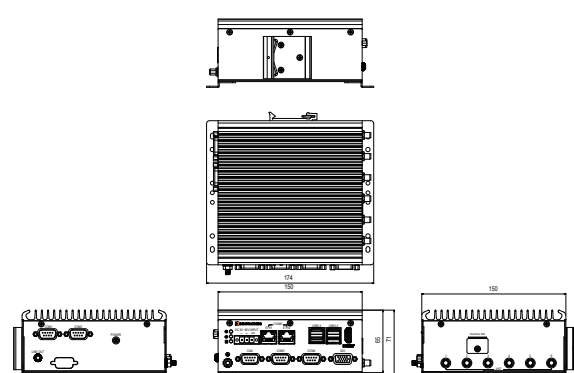
VBOX-3132P



VBOX-3132-D25-M12X



VBOX-3132-D25



| Model Name               | RJ-45 Model | M12 Model | 2.5GbE | GbE | PoE | BBU | Dimension ( L x W x H)              |
|--------------------------|-------------|-----------|--------|-----|-----|-----|-------------------------------------|
| VBOX-3132P-M12X-x7835    | -           | V         | 1      | 4   | V   | -   | 150 x 150 x 87 mm (6 x 6 x 3.43 in) |
| VBOX-3132P-M12X-x7433    | -           | V         | 1      | 4   | V   | -   | 150 x 150 x 87 mm (6 x 6 x 3.43 in) |
| VBOX-3132P-x7835         | V           | -         | 1      | 4   | V   | -   | 150 x 150 x 65 mm (6 x 6 x 2.56 in) |
| VBOX-3132P-x7433         | V           | -         | 1      | 4   | V   | -   | 150 x 150 x 65 mm (6 x 6 x 2.56 in) |
| VBOX-3132-D25-M12X-x7835 | -           | V         | 2      | -   | -   | V   | 150 x 150 x 65 mm (6 x 6 x 2.56 in) |
| VBOX-3132-D25-M12X-N355* | -           | V         | 2      | -   | -   | V   | 150 x 150 x 65 mm (6 x 6 x 2.56 in) |
| VBOX-3132-D25-M12X-N150  | -           | V         | 2      | -   | -   | V   | 150 x 150 x 65 mm (6 x 6 x 2.56 in) |
| VBOX-3132-D25-N355*      | V           | -         | 2      | -   | -   | V   | 150 x 150 x 65 mm (6 x 6 x 2.56 in) |
| VBOX-3132-D25-N150       | V           | -         | 2      | -   | -   | V   | 150 x 150 x 65 mm (6 x 6 x 2.56 in) |

\*Project-based SKU

Ordering Information

|                 |                    |                                                                                                                                        |
|-----------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Model Number    | VBOX-3132P         | VBOX-3132P-yyyy-zzzzz (yyyy=M12X;zzzzz=x7835=Intel Atom® x7835RE, zzzzz=x7433=Intel Atom® x7433RE)                                     |
|                 | VBOX-3132-D25-M12X | VBOX-3132-D25-M12X-zzzzz (zzzzz=x7835=Intel Atom® x7835RE, zzzzz=N355=Intel® Core™ 3 Processor N355, zzzzz=N150=Intel® Processor N150) |
|                 | VBOX-3132-D25      | VBOX-3132-D25-zzzzz (zzzzz=N355=Intel® Core™ 3 Processor N355, zzzzz=N150=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/Twin Lake Dual 2.5GbE M12 DIN rail Rugged Edge Computer (BBU for Option)                                           |
|                 | VBOX-3132-D25      | Intel® Twin Lake 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  | Non-PoE model: DC 12V, 60W<br>PoE model: DC 24V, 160W                              |
| Ethernet Cable | M12 X-code to RJ-45 (1M)                                                           |

All specifications are subject to change without notice.