VBOX-3650(P)-(M12X)

Intel® Core™ Ultra Series 3 Edge AI Computer



- Intel® Core™ Ultra Series 3 with a Built-In NPU for AI Application
- 1 x 2.5GbE, 3 x GbE Ports for IoT Devices Connectivity
- 4 x PoE/M12 Model for Optional
- Dual 2.5-inch SATA Storage with RAID 0,1 for NVR Applications
- One Cover Solution Simplified Module Installation
- Built-in Watchdog and Smart Power Management for System Monitoring

Specifications

System

Processor
- Intel® Core™ Ultra 7 Processors 366H up to 4.8 GHz (P-Core)
- Intel® Core™ Ultra 5 Processors 336H up to 4.6 GHz (P-Core)

*4 x P-core + 8 x E-core + 4 x LP E-core for Ultra 7 366H

*4 x P-core + 4 x E-core + 4 x LP E-core for Ultra 5 336H

**Processor Base Power (TDP) is limited at 25W

Graphics
- Intel® Graphics

Memory
- 2 x DDR5-7200 SO-DIMM up to 128 GB (In Band ECC Support)

Security
- 1 x TPM 2.0 (Comply with FIPS 140-3)

Watchdog
- Auto reset for unresponsive system

Interface

Video
- 2 x HDMI, 1 x DP
- 1 x DVI-D Single-Link supports VDM Display

* Supports 4 Independent Display

Audio
- 1 x Line-out, 1 x Mic-in

Ethernet
- 1 x 2.5GbE from Intel I226-LM via RJ-45 or M12 X-code
- 3 x GbE from Intel I210-AT via RJ-45 or M12 X-code

*Optional SKU for 4-port PoE

**PoE supports 15.4W per-port with a total power budget: 60W

USB
- 2 x USB 3.2, 2 x USB 2.0

DIO
- 6 x DI (0-60VDC), 4 x DO (12VDC/100mA)

COM
- 4 x COM support RS-232/422/485 ports (3 x COM for M12 model)

Mgmt. Port
- 1 x Standby Control via 3-pin terminal block

Storage

Type
- 1 x M.2 2242/2260/2280 Key M for NVMe SSD
- 1 x Removable tray for dual 2.5"" SATA SSD

* Support RAID 0,1

Internal Expansion

M.2
- 2 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

* One slot share with one Mini PCIe

Mini PCIe
- 2 x Mini PCIe* (full-size)

* One slot shares with one M.2 3042/3052 supporting PCIe and USB 2.0

** One slot supports USB 2.0 only

Power

Power Input
- DC 9-60V (nominal power input DC 12V/24V/48V) via 3-pin terminal block or M12 K-code

Power Output
- 2 x DC 12V/1A via DB-15

Power Protection
- OCP, OVP, surge protection, reversed polarity protection

Power Management
- Ignition detection, Smart Power Management

RTC Battery
- Removable front tray for RTC coin cell battery

Software

Operating System
- Windows 11 IoT Enterprise LTSC
- Ubuntu 26.04 LTS or above

Certification / Compliance

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

*On going

Environmental

Operating Temp.

• -40°C ~ 70°C (-40°F ~ 158°F) with 0.6 m/s airflow

*Operating temperature 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

• 7 x SMA connector panel mount hole

Mounting

• Wall mounting

Net Weight

• RJ-45 Model: 2.56 kg (5.65 lb)*

• M12 Model: 2.72 kg (6.00 lb)*

*Specifications may change after mass production.

Dimensions (L x W x H)

• 250 x 160 x x 55 mm (9.85 x 6.30 x 2.17 in.)

Ordering Information

Model Number	VBOX-3650(P)(-M12X)-zzz-zzzzz (P=w/ PoE, M12X=w/ M12 X code connectors) zzz-zzzz=U7-366H=Intel® Core™ Ultra 7 Processor 366H zzz-zzzz=U5-336H=Intel® Core™ Ultra 5 Processor 336H
Description	Intel® Core™ Ultra Series 3 Edge AI Computer
State of Origin	Made in Taiwan

Optional Accessories

Memory	DDR5 SO-DIMM 8/16/24GB, -40°C ~ 85°C
Storage	M.2 2280 NVMe SSD 256GB~2TB, -40°C ~ 85°C
Wi-Fi	M.2 2230 Wi-Fi module, -40°C ~ 85°C
WWAN	M.2 3042/3052 WWAN module, -40°C ~ 85°C
GNSS	M.2 2242 Key B GNSS module, -40°C ~ 85°C Mini PCIe GNSS module, -40°C ~ 85°C
CAN Bus	M.2 3042 Key B CAN module Mini PCIe CAN module, -40°C ~ 85°C
Power Adapter	24VDC, 160W

All specifications are subject to change without notice.