VTC 6232-C4SIP

Fanless 4-CH PoE In-Vehicle Computer
with Intel Atom® x7433RE Processor

Main Features

- Intel Atom® x7433RE processor
- 4 x PoE (802.3 bt/af/at, up to 90W total)
- Built-in u-blox-M9N GPS
- Built-in CAN FD
- IP66 Protection
- E mark conformity
- 3 x Expansion slot
- Dual external storage (compatible with 15mm disk)
- 1 x eMMC to run OS
- 1 x VGA video output

Product Overview

The VTC 6232-C4SIP, based on the Intel Atom® x7433RE processor, specifically complies with stringent E mark standards in a rugged, fanless, and compact mechanism. The VTC 6232-C4SIP provides complete communication capability between the vehicle and the computer with a built-in CAN FD interface. Equipped with intelligent power management, the VTC 6232-C4SIP can be woken up by ignition, RTC timer, or remotely through SMS message. The VTC 6232-C4SIP supports four 802.3 bt/af/at PoE ports (up to 90W total) to connect with IP cameras. Its design with a 2.5" removable SSD and eMMC facilitates easy storage access. The VTC 6232-C4SIP maintains the flexibility to meet the demands of video surveillance in vehicle applications.

Specifications

CPU
- Intel Atom® x7433RE processor (embedded)

Memory
- 1 x DDR5 4800 SO-DIMM, default 8GB

Video Output
- 1 x VGA, up to 1920x1200@60Hz

Storage
- 2 x 2.5" SATA 3.0 HDD/SSD tray, removable, 15mm
- 1 x 64GB eMMC default for OS

Expansion
- 1 x Mini PCIe slot (PCIe 3.0, USB 2.0), BOM optional M.2 Key B 3052 (USB 3.2, USB 2.0)
  - Support LTE/5G NR module with 2 x external SIM
- 1 x M.2 Key B 3042/3052 (USB 3.2, USB 2.0)
  - Support LTE/5G module
- 1 x M.2 Key E 2230 (PCIe 3.0, USB 2.0), BOM optional Mini PCIe (PCIe 3.0, USB 2.0)
  - Support Hailo module

GNSS and Onboard Sensor
- 1 x u-blox NEO-M9N GNSS for GPS/Glonass/QZSS/Galileo/Beidou
- 3D accelerometer and 3D gyroscope

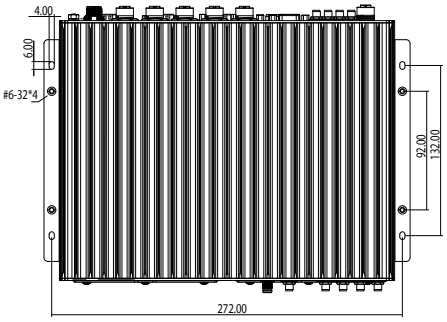
LAN and Power over Ethernet
- 4 x 2.5GbE M12 X-coded PoE connector, Intel® I226-IT (2 x 802.3 bt + 2 x 802.3 af/at), up to 90W total (PoE++1, PoE++2, PoE+3, PoE+4)
- 1 x 2.5GbE M12 X-coded connector, I226-IT

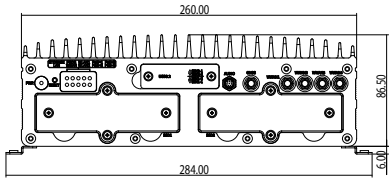
Security
- TPM 2.0, Infineon SLB 9672VU2.0

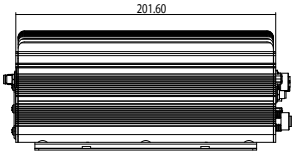
I/O Interface-Front
- 10 x LED indicator (including 1 x programmable LED)
- 4 x Externally accessible nano-SIM card socket with cover
- 2 x 2.5" removable SSD tray, removable, 15mm
- 1 x Reset button
- 1 x Power button
- 2 x USB 3.2 Gen 2, Type-A
- 1 x M8 A-coded for Mic in, 1 x Line out, 1 x Line in
- 5 x SMA antenna

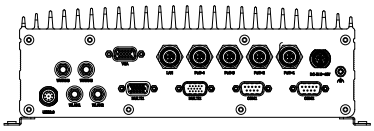
I/O Interface-Rear
- 1 x M12 K-coded 5-pin for 9V~48V DC
- 1 x 2.5GbE M12 X-coded connector
- 4 x 2.5GbE M12 X-coded PoE connector, Intel® I226-IT (2 x 802.3 bt + 2 x 802.3 af/at), up to 90W total (PoE++1, PoE++2, PoE+3, PoE+4)
- 1 x VGA, up to 1920x1200@60Hz
- 2 x COM Port (DB9), supports RS-232/422/485

Dimension Drawing









- 4 x SMA antenna
- 1 x M12 A-coded for 2 x USB 2.0
- 1 x DB15 (Multi1 Port)
  - 4 x DI with isolation
  - 4 x DO with isolation
  - 1 x GNSS Speed/Direction
  - Vin, GND for GPIO
- 1 x DB15 (Multi2 Port)
  - 1 x RS-422/485
  - 1 x RS-232 (TX/RX)
  - 1 x CAN FD
  - 1 x 12V DC, 2A output (Vout, GND)

Power Management & Software Support

- Power input 9V~48V DC
- Selectable boot-up & shut-down voltage for low power protection by software
- Setting 8-level power on/off delay time by software
- Support S3/S4 suspend mode
- 10~255 seconds WDT support, setup by software
- SDK (Windows/Linux) including utility and sample code

Operating System

- Windows 10, 64bit
- Windows 11
- Linux 4.x

Dimensions

- 260.0mm (W) x 201.6mm (D) x 86.5mm (H)

Weight

- 4.5kg

Environment

- Operating temperature:
  - -40°C~70°C (w/ industrial SSD) with air flow
- Storage temperature: -40°C~85°C
- Relative humidity: 10%~90% (non-condensing)
- Vibration (random)
  - 2g@5Hz~500Hz (in operation, SSD)
- Vibration (SSD)
  - Operating: MIL-STD-810H, Method 514.8C Procedure 1, Category 4, common carrier US highway truck vibration exposure
  - Storage: MIL-STD-810H, Method 514.8E Procedure 1, Category 24, minimum integrity test
- Shock (SSD)
  - Operating: MIL-STD-810H, Method 516.8, Procedure I, functional shock=40g
  - Non-operating: MIL-STD-810H, Method 516.8, Procedure V, crash hazard shock test=75g

Standards/Certifications

- CE
- FCC Class A
- E13 mark

Ordering Information

- **VTC 6232-C4SIP (P/N: 10V00623202X0)**
  Intel Atom® x7433RE processor, 8GB DDR5 SO-DIMM,9V~48V DC input, 1 x VGA, 1 x LAN, 4 x PoE, 2 x full RS-232/422/485, 1 x RS-422/485, 8 x GPIO, 1 x USB 3.2, 2 x USB 2.0