VTC 6232

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



Main Features

- Intel Atom® processor quad core x7433RE, 1.5GHz
- 4 x PoE (802.3bt/af/at, up to 90W total)
- Built-in u-blox-M9N GPS
- Built-in CAN FD
- E-mark conformity
- 3 x Expansion slot
- Dual external storage (compatible with 15mm disk)
- 1 x eMMC to run OS
- Two video outputs, one VGA, and one HDMI®

Product Overview

The VTC 6232, based on the Intel Atom® quad-core processor x7433RE (up to 1.5GHz), specifically complies with stringent E-mark standards in a rugged, fanless, and compact mechanism. The VTC 6232 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 can be woken up by ignition, RTC timer, or remotely through SMS message. The VTC 6232 supports four 802.3bt/af/at PoE ports (maximum total 90W) to connect with IP cameras. The design with a 2.5" removable SSD and eMMC facilitates easy storage access. The VTC 6232 maintains the flexibility to meet the demands of video surveillance in vehicle applications.

Specifications

Processor
- Intel Atom® processor x7433RE, TDP 9W (embedded)

Memory
- 1 x DDR5 4800 SO-DIMM, up to 32GB, default 8GB

Display Interface
- 1 x HDMI® 2.0, up to 4096x2160@60Hz
- 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 Slot
- 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 an LTE/5G NR module with 2 x external SIM
- 1 x M.2 Key B 3042/3052 (USB 3.2, USB 2.0)
  - Support an 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

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

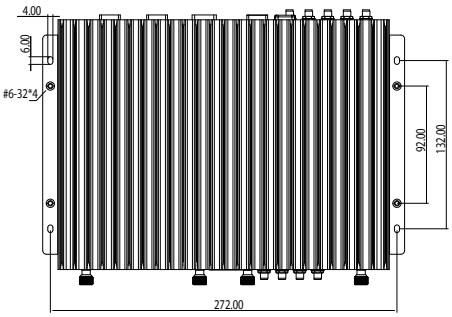
System Capabilities
- TPM 2.0: Infineon SLB 9672VU2.0

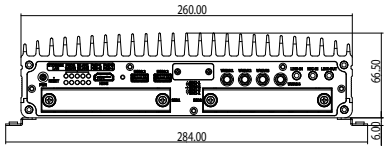
I/O Interface Front
- 10 x LED indicator (including 1 x programmable LED)
- 4 x Externally accessible nano-SIM card slot with cover
- 2 x 2.5" removable SSD tray, 15mm
- 1 x Reset button
- 1 x Power button
- 2 x USB 3.2 Gen 2, Type-A
- 1 x HDMI® 2.0
- 1 x Mic in, 1 x Line out, 1 x Line in
- 5 x SMA antenna

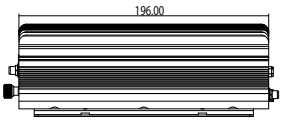
I/O Interface Rear
- 1 x 3-pin terminal block for DC 9V~48V power input
- 4 x 2.5GbE RJ45 PoE port, Intel® I226-IT (2 x 802.3bt + 2 x 802.3af/at), total up to 90W (PoE++1, PoE++2, PoE+3, PoE+4)
- 1 x 2.5GbE RJ45 port, Intel® I226-IT
- 1 x VGA, up to 1920x1200@60Hz
- 2 x COM port (DB9), supports RS-232/422/485
- 4 x SMA antenna
- 2 x USB 2.0, Type-A
- 1 x MULTI1 port (DB15)
  - 4 x DI with isolation
  - 4 x DO with isolation
  - 1 x GNSS Speed/Direction
  - Vin, GND for GPIO
- 1 x MULTI2 port (DB15)
  - 1 x RS-422/485
  - 1 x RS-232 (Tx/Rx)
  - 1 x CAN FD
  - 1 x DC 12V, 2A output (Vout, GND)

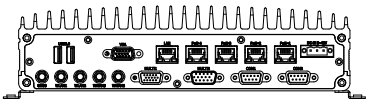
Power Management
- DC 9V~48V power input
- Selectable boot-up & shut-down voltage for low power protection by software
- Setting 8-level power on/off delay time by software
- Support S3/S4 suspend mode

Dimension Drawing









- 10~255 seconds WDT support, setup by software
- SDK (Windows/Linux) including utility and sample code

Operating System

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

Mechanical

- Dimensions: 260mm (W) x 196mm (D) x 66.5mm (H)
- Weight: 3.2kg

Environment

- Operating temperature:
  - -40°C~70°C (w/ industrial SSD) with air flow
- Storage temperature: -40°C~85°C
- Relative humidity: 10% to 90% (non-condensing)
- Vibration (random)
  - 2g@5~500Hz (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

Certifications

- CE
- FCC Class A
- E13 mark

Ordering Information

- **VTC 6232-C4S (P/N: 10V00623201X0)**
  Intel Atom® x7433RE processor, 8GB DDR5 SO-DIMM, DC 9V~48V input, 1 x VGA, 1 x HDMI®, 1 x LAN, 4 x PoE, 2 x RS-232 (full)/422/485, 1 x RS-422/485, 8 x GPIO, 2 x USB 3.2, 2 x USB 2.0

We reserve the right to change specifications and product descriptions at any time without prior notice.