VTC 1921-IP

Intel Atom® x7211RE Telematics IoT Gateway
IP67 Water and Dust Resistant





Main Features

- IP67 precision design to resist water and dust
- Built-in CAN FD, 1 x CAN 2.0B
- u-blox NEO-M9N onboard
- Four SIM cards for WWAN modules
- Smart power management with ignition on/off delay via software control and low voltage protection
- 2 x 2.5GbE LAN
- Certified by CE/FCC/E13 mark/EN 50155

Product Overview

The VTC 1921-IP, a waterproof entry-level vehicle computer with Intel Atom® x7211RE processor, is designed for wet, dirty, and harsh environments. Precision-engineered to IP67 standards, it resists water and dust and complies with the stringent MIL-STD-810H military standard. Its rugged, fanless, and compact design, combined with its lightweight form factor, makes it ideal for vehicles with limited space, without sacrificing performance or features. The VTC 1921-IP features onboard CAN FD and CAN 2.0B for vehicle diagnostics and driver behavior management. An advanced GPS receiver supports GPS/GLONASS/QZSS/Galileo/BeiDou. Additionally, the VTC 1921-IP offers WLAN and WWAN wireless data and voice connectivity. With four external SIM slots, it can support better connectivity quality through software optimization. Its flexibility allows it to meet various telematics application demands, including IoT gateway, infotainment, fleet management, and dispatching systems.

Specifications

Processor
- Intel Atom® x7211RE processor, TDP 6W

Memory
- 1 x DDR4 3200 SO-DIMM, up to 32GB, default 4GB

Storage
- 1 x mSATA (occupies one Mini PCIe slot)
- 1 x 2.5" SSD

Expansion Slot
- 1 x Mini PCIe slot (USB 2.0, PCIe 3.0)
- 1 x M.2 Key B 3042/3050/3052 (USB 2.0, USB 3.2 Gen 2)
  - Support an LTE/5G NR module with 2 x external nano-SIM
- 1 x M.2 Key E 2230 (USB 2.0, PCIe 3.0) for a Wi-Fi module

Sensor
- 1 x u-blox NEO-M9N onboard
  - Support GPS/GLONASS/QZSS/Galileo/BeiDou
- Built-in 3D accelerometer and 3D gyroscope

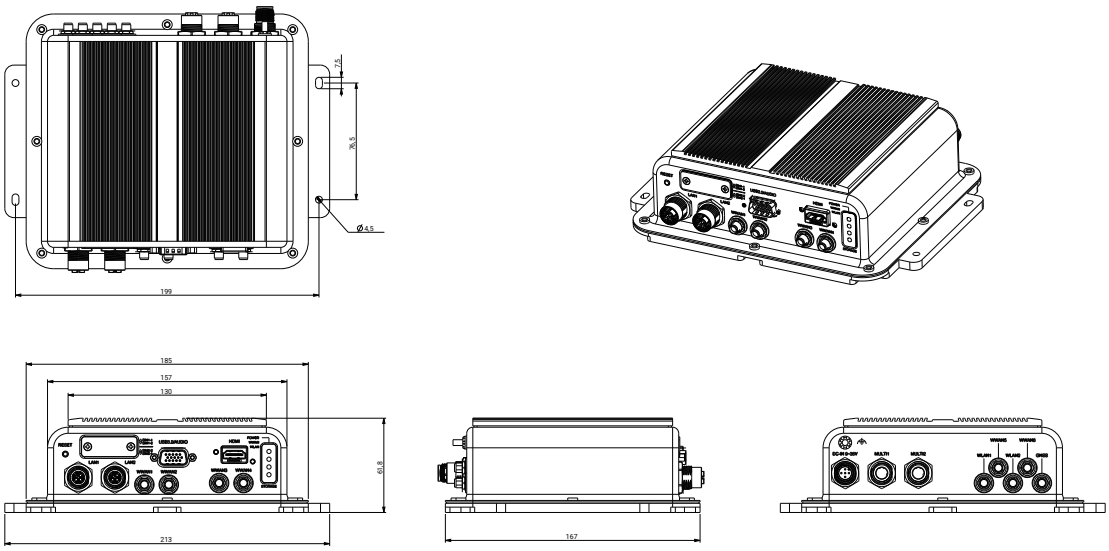
System Capabilities
- TPM 2.0

I/O Interface Front
- 4 x LED indicator for power, WWAN, Wi-Fi, and storage
- 4 x nano-SIM slot with cover
- 2 x 2.5GbE M12 X-code connector
- 1 x COM port (DB15 male, waterproof)
  - 1 x USB 3.2
  - 1 x Mic in (L/R)
  - 1 x Line out (L/R)
- 1 x HDMI® (waterproof)
- 1 x Reset button
- 4 x Antenna hole for WWAN

I/O Interface Rear
- 1 x M12 connector for DC 9V~36V power input w/ ignition control
- 1 x M12 A-coded connector (MULTI1 port)
  - 2 x RS-232 (Tx/Rx)
  - 1 x RS-485 (Tx/Rx)
  - 4 x DI, 4 x DO
- 1 x M12 A-coded connector (MULTI2 port)
  - 1 x USB 2.0
  - 1 x CAN FD (w/ isolation)
  - 1 x CAN 2.0B (w/ isolation)
  - 1 x DR
- 5 x Antenna hole for WWAN/WLAN/GPS

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

Dimension Drawing



Mechanical

- Dimensions: 185mm (w) x 167mm (D) x 56.5mm (H) (7.28” x 6.57” x 2.22”)
- Weight: 1.1kg (2.42lbs)

Environment

- Temperature
  - Operating temperatures: -40°C~70°C for vehicle
  - Operating temperatures: -40°C~70°C (OT4) for railway
  - Storage temperatures: -40°C~85°C
  - Damp heat test per EN 60068-2-30
- Humidity
  - IEC 60068-2-78, damp heat steady state test, 40°C, 95%, 48Hrs
- Vibration
  - IEC 60068-2-64, 2G
  - Operating: MIL-STD-810H, 514.8C Procedure 1, Category 4
  - Storage: MIL-STD-810H, 514.8E Procedure 1, Category 24
- Shock
  - MIL-STD-810H, 516.8 Procedure I, trucks and semi-trailers=40g
  - Crash hazard: Procedure V, ground equipment=75g

Certifications

- CE
- FCC Class A
- E13
- EN 50155

Ordering Information

- **VTC 1921-IP (P/N: 10V00192102X0)**
  Intel Atom® x7211RE processor, 4GB DDR4 SO-DIMM, u-blox M9N GPS onboard, 1 x HDMI® output, 2 x LAN, 2 x RS-232 (Tx/Rx), 1 x RS-485 (Tx/Rx), 1 x CAN FD, 1 x CAN 2.0B, 4 x DI, 4 x DO, 1 x USB 3.2, 1 x USB 2.0, 1 x Line out/Mic in

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