



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 PoE 802.3 af/at, max. total 30W (VTC1921-C2IP)
- Certified by CE/FCC/E13 mark/EN50155/EN45545-2

Product Overview

VTC 1921-IP/C2IP, a waterproof entry-level vehicle computer with Intel Atom® x7211RE (1.0GHz) 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.

VTC 1921-IP/C2IP 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, VTC 1921-IP/C2IP offers WLAN and WWAN wireless data and voice connectivity. With four external SIM sockets, it can support better connectivity quality through software optimization. The VTC 1921-C2IP provides dual IEEE8023af/at PoE functions, making it compatible with most PoE devices. Its flexibility allows it to meet various telematics application demands, including IoT gateway, infotainment, fleet management, and dispatching systems.

Specifications

CPU

- Intel Atom® processor dual-core x7211RE/1.0GHz

Memory

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

Storage

- 1 x mSATA (occupy one mPCIe slot)
- 1 x 2.5" SSD (VTC1921-IP only)
- 1 x M.2 Key M 2280 for SATA 3.0 (on daughter board of VTC1921-C2IP)

Expansion

- 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 LTE/ 5G NR module with 2 x external nano-SIM
- 1 x M.2 2230 Key E (USB 2.0, PCIe 3.0) for Wi-Fi

Function

- 1 x U-blox NEO-M9N onboard
 - Support GPS/Glonass/QZSS/Galileo/ BeiDou
- Built-in 3D accelerometer and 3D gyroscope
- TPM 2.0

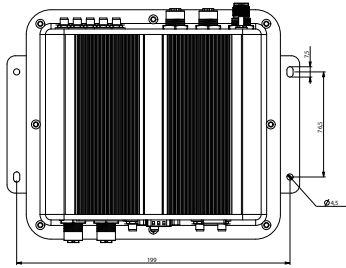
I/O Interface-Front

- 4 x LED for power, WWAN, Wi-Fi, storage
- 4 x nano-SIM socket with cover
- 2 x 2.5GbE M12 A-code port (only one LAN in VTC1921-C2IP)
- 1 x DB15 connector (male, waterproof)
 - 1 x USB 3.2
 - 1 x Mic in (L/R)
 - 1 x Line out (L/R)
- 1 x HDMI (waterproof)
- 4 x Antenna hole for WWAN

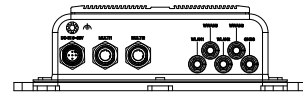
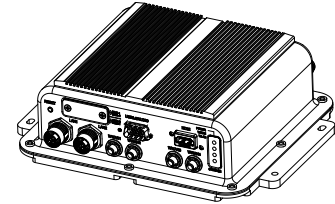
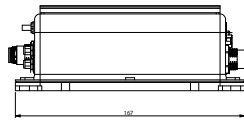
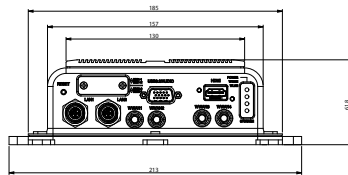
I/O Interface-Rear

- 1 x M12 circular power connector (ignition, power, GND)
- 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

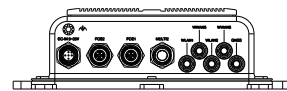
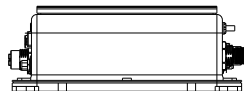
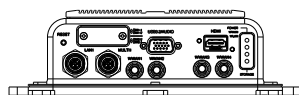
Dimension Drawing



VTC 1921-IP



VTC 1921-C2IP



- 5 x Antenna hole for WWAN/WLAN/GPS
- 2 x 2.5GbE M12 X-coded PoE port, 802.3af/at, total up to 30W (VTC1921-C2IP only)

Operating System

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

Dimensions

- 185mm (w) x 167mm (D) x 56.5mm (H) (7.28" x 6.57" x 2.22")
- Weight: 1.1kg (2.42bs)

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 EN60068-2-30
- Humidity
 - IEC60068-2-78, 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
- EN50155
- EN45545-2

Ordering Information

♦ VTC 1921-IP (P/N: 10V00192102X0)

Intel Atom® processor dual core x7211RE, 1.0GHz with 4GB DDR4 SO-DIMM, U-blox M9N GPS onboard, 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

♦ VTC 1921-C2IP (P/N: 10V00192103X0)

Intel Atom® processor dual core x7211RE, 1.0GHz with 4GB DDR4 SO-DIMM, U-blox M9N GPS onboard, HDMI output, 1 x LAN, 2 x PoE, 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