VTC 1920

Intel Atom® x7211RE Telematics IoT Gateway
Slim and Ruggedized Design



Main Features

- Super slim and ruggedized design
- Intel Atom® processor x7211RE (1.0GHz)
- Built-in 1 x CAN FD, 1 x CAN 2.0B
- Smart power management with ignition on/off delay via software control and low voltage protection
- Built-in u-blox M9N GNSS
- Dual SIM cards for WWAN modules
- Wide range DC input from 9V~36V
- Wide operating temperature -40°C~70°C
- Certified by CE/FCC/E13 mark

Product Overview

The VTC 1920, a super slim, rugged, and entry-level vehicle computer with Intel Atom® processor x7211RE (1.0GHz), is designed for the harsh in-vehicle environment. It allows to comply with stringent MIL-STD-810H military standard in rugged, fanless, and compact mechanism. Because of the super slim design, it is especially for the vehicles with limited space to locate the computer system, but without compromising with its space to scarify its features.

The VTC 1920 has onboard CAN FD and CAN 2.0B for vehicle diagnostics and driver behavior management. An advanced GNSS receiver supports GPS/GLONASS/QZSS/Galileo/Beidou. The VTC 1920 features WLAN and WWAN wireless connection capability. With external two SIM slots which can support a better connectivity quality by software. The VTC 1920 keeps the flexibility to meet different demands for telematics applications, such as IoT Gateway infotainment, fleet management and dispatching system.

Specifications

Processor
- Intel Atom® x7211RE processor, TDP 9W

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

Storage
- 1 x M.2 Key M 2242 for SATA 3.0
- 1 x M.2 Key M 2280 for SATA 3.0, optional on the daughter board

Expansion Slot
- 1 x M.2 Key B 3042/3050/3052 (USB 2.0, USB 3.2 Gen 2) for an LTE/5G NR module with 2 x external nano-SIM
- 1 x M.2 Key E 2230 (USB 2.0, PCIe 3.0), optional on the daughter board
- 1 x Full size Mini PCIe slot (USB 2.0); BOM optional M.2 Key B 3052 (USB 2.0) for an LTE module, optional on the daughter board

Sensor
- 1 x u-blox NEO-M9N onboard
  - Support GPS/GLONASS/QZSS/Galileo/BeiDou
- Built-in G-sensor

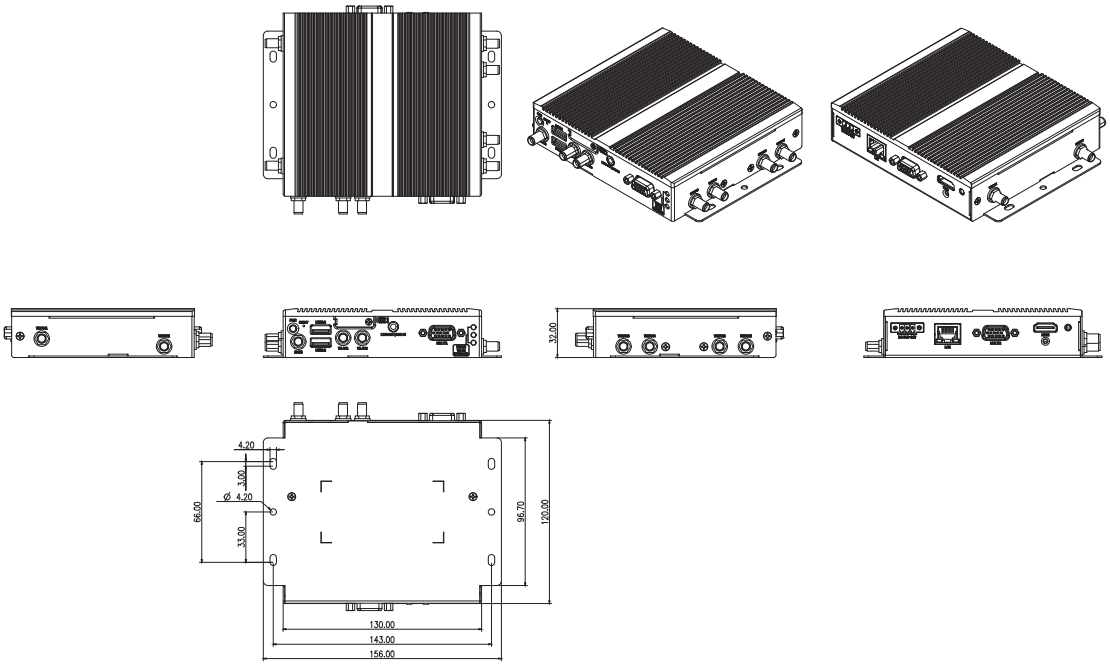
System Capabilities
- TPM 2.0: Infineon SLB 9670VQ2.0

I/O Interface Front
- 1 x Power button with LED
- 1 x Reset button
- 3 x LED for WWAN, WLAN, and Storage
- 2 x nano-SIM slot with cover
- 1 x MULTI port (DB15) for 1 x CAN FD, 1 x CAN 2.0B, 1 x DR, 1 x Analog input (detect DC 9V~36V)
- 1 x Line out/Mic in
- 2 x USB 3.2, Type-A
- 3 x Antenna hole for GNSS/WLAN

I/O Interface Rear
- 1 x Phoenix connector for power/GND/ignition input
- 1 x 2.5GbE RJ45 port with LED
- 1 x HDMI®, resolution up to 3840x2160@30Hz
- 1 x MULTI port (DB15) for 2 x RS-232 (Tx/Rx), 1 x RS-485 (Tx/Rx), 3 x DI, 3 x DO

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

Dimension Drawing



Environment

- Temperature
  - Operating temperature: -40°C~70°C
  - Storage temperature: -45°C~85°C
  - Damp heat test per EN 60068-2-30
- Humidity
  - IEC 60068-2-78, damp heat steady state test, 40C, 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
  - Non-operating: MIL-STD-810H, Method 516.8, Procedure V, crash hazard shock test=75g

Mechanical

- Dimensions: 130mm (W) x 120mm (D) x 32mm (H) (5.12" x 4.72" x 1.26")
- Weight: 0.6 kg (1.3 lbs)

Certifications

- CE approval
- FCC Class A
- E13 mark

Power Management

- Selectable boot-up & shut-down voltage for low power protection by software
- Setting 8-level power on/off delay time by software
- Status of ignition and low voltage can be detected by software
- Support S3/S4 suspend mode

Ordering Information

- **VTC 1920 (P/N: 10V00192000X0)**
  Intel Atom® processor x7211RE, 1.0GHz with 4GB DDR4 SO-DIMM, u-blox M9N GNSS onboard, HDMI® output, 1 x LAN, 2 x RS-232 (Tx/Rx), 1 x RS-485 (Tx/Rx), 1 x CAN FD, 1 x CAN 2.0B, 3 x DI, 3 x DO, 2 x USB 3.2, 1 x Line out/Mic in

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