VTC 1030

Main Features

- Intel Atom® x6211E dual-core processor, 6W
- Compact and fanless design
- 5G NR and Wi-Fi 6/6E wireless communication options
- Built-in GNSS receiver with optional dead reckoning function
- Built-in 1 x CAN bus 2.0B (optional SAE J1939)
- Wide range DC input from 9~36V

- Smart power management with Ignition on/off delay via software control and low voltage protection
- Dual display outputs and 2.5GbE LAN ports
- 1 x mini-PCIe + 2 x M.2 socket expansion
- Certified by CE/FCC/E13 mark

Product Overview

VTC 1030, a compact, rugged and entry-level vehicle computer with Intel Atom® x6211E dual-core processor 1.3GHz/3GHz (burst), is designed for the harsh in-vehicle environment. Because of the compact 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.

VTC 1030 has onboard CAN 2.0B for vehicle diagnostics and driver behavior management. An advanced GNSS receiver supports GPS/Glonass/QZSS/Galileo/Beidou and optional dead reckoning module is also available. VTC 1030 features optional WLAN Wi-Fi 6/6E/Wi-Fi 5 and WWAN 5G NR/LTE wireless data connectivity. With external micro-SIM socket, it allows user to access micro-SIM card conveniently. 12VDC output can be provided for external display with easy power wire arrangement. VTC 1030 keeps the flexibility to meet different demands for telematics applications, such as wireless gateway, infotainment, fleet management and patching system.

Specifications

CPU
- Intel Atom® x6211E dual-core processor, 1.3GHz/3GHz (burst), TDP 6W

Memory
- 1 x 260-pin DDR4 SO-DIMM socket support 3200MHz up to 32GB. Default 2666MHz, 4GB
- With In-Band ECC (IBECC)

Video Output
- 1 x HDMI 1.4b up to 3840 x 2160@30Hz
- 1 x VGA port 1920 x 1200@60Hz

Storage
- 1 x 2.5" SATA 3.0 internal drive bay (9.5mm)
- 1 x mSATA slot (occupied mini-PCIe slot)

Expansion
- 1 x Full size mini-PCIe socket (USB 2.0, PCIe 3.0/SATA 3.0)
- 1 x M.2 2230 Key E socket (USB 2.0, PCIe 3.0 x2)
- 1 x M.2 3042/3050/3052 Key B socket (USB 2.0, USB 3.2 Gen 2) for LTE/5G NR module with 2 x external micro-SIM

GNSS and Onboard Sensor
- 1 x Default U-blox NEO-M9N GNSS module for GPS+QZSS/Glonass/Galileo/Beidou
- Optional M8U modules with dead reckoning available
- 1 x 3D accelerometer and 3D gyroscope

LAN
- 2-port LAN RJ45, 10/100/1000/2500 Mbps Ethernet, Intel® I225-IT

Security
- TPM 2.0: infineon SLB9670VQ2.0 FW7.62

I/O Interface-Front
- 6 x LED indicators (including 1 x programmable LED)
- 1 x USB 3.2 Gen 2 type A (5V/0.9A)
- 1 x USB 2.0 type A (5V/0.5A)
- 2 x Externally accessible micro-SIM card sockets with cover
- 1 x Reset button
- 1 x Power button
- 1 x DB9 (COM1) for full RS232/422/485
- 1 x Mic-in, 1 x Line-out
- 2 x LAN RJ45, 10/100/1000/2500 Mbps
- 2 x RP-SMA connector holes for WLAN
- 1 x SMA connector for GNSS

NEXCOM

Dimension Drawing

219.4
203.2
4.0 TYP.4
6.0 TYP.4
41.0
Ø 4.0 TYP.2
41.0

185.0
120.0
51.6
45.0
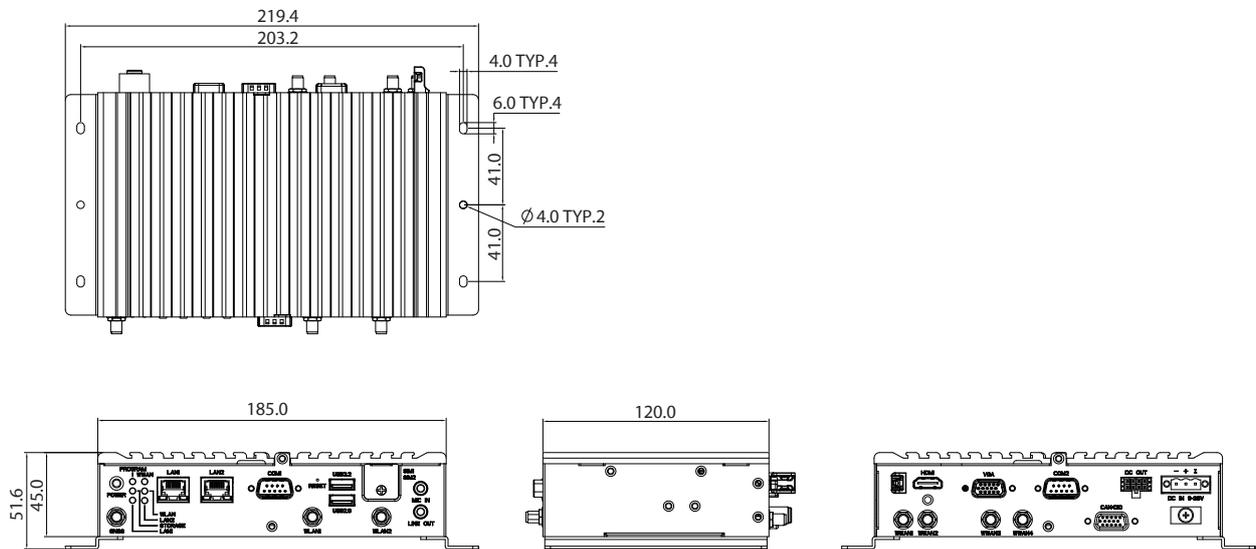
I/O Interface-Rear
- 1 x HDMI
- 1 x VGA
- 1 x DB9 (COM2) for full RS232/422/485
- 1 x DB15 (CAN/DIO)
  - 1 x Isolated CANBus 2.0B
  - 5 x DI and 4 x DO
  - Power in for DIO isolation, 9~36VDC
- 1 x 3-pin terminal block for 9V~36VDC
- 1 x Connector (4 x 2) for 12VDC/2A output, reset, power button, RS232 (Tx/Rx)
- 4 x SMA connector holes for WWAN

Power Management & Software Support
- Power input 9~36VDC
- Cranking voltage: 6V~9V (< 30 seconds)
- Reverse protection, OCP & UVP
- Selectable boot-up & shut-down voltage for low power protection by software
- Setting 8-level power on/off delay time by software
- 10~255 seconds WDT support, setup by software
- SDK (Windows/Linux) including utility and sample code

Operating System
- Windows 11/Windows 10/Linux

Dimensions
- 185mm (W) x 120mm (D) x 45mm (H)

Weight
- 1.20kg

Environment
- Operating temperatures
  - -40°C to 70°C (w/ 6W TDP CPU, industrial SSD) with air flow
- Storage temperatures: -40°C to 85°C
- Relative humidity: 90% (non-condensing)
- Vibration (random)
  - 2g@5~500 Hz (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 1030 (P/N: 10V00103000X0)**
  Intel Atom® x6211E dual-core processor 1.3GHz with 4GB DDR4, U-blox NEO-M9N GNSS module, 1 x CAN 2.0B, 1 x VGA output, 1 x HDMI output, 1 x internal SSD tray, 2 x LAN RJ45, 1 x mini-PCIe slot, 2 x M.2 slots, 2 x external micro-SIM, 1 x USB 3.2 Gen 2, 1 x USB 2.0, 2 x full RS232/422/485, 5 x DI & 4 x DO

Last update: 06/21/2022