VTC 6210

Intel® Atom™ E3845 Fanless In-Vehicle Computer

Main Features

- Intel® Atom™ processor quad core E3845, 1.91GHz
- Three SIM cards + dual WWAN modules support
- Built-in U-blox UBX-G6010 GPS, optional Dead Reckoning support
- Built-in CAN Bus 2.0B. Optional OBDII function (SAE J1939/J1708)
- Wake on RTC/SMS via WWAN module

- Compliant with MIL-STD-810G
- 4 x Mini-PCIe socket expansion
- Programable 8 x GPIO
- Voice communication via WWAN module

Product Overview

VTC 6210, based on Intel® Core™ quad core processor E3845 (1.91GHz), is specifically designed for the harsh in-vehicle environment. It allows VTC 6210 to comply with stringent MIL-STD-810G military standard in rugged, fanless and compact mechanism. VTC 6210 provides complete communication capability between automotive and computer with build-in CAN BUS 2.0B interface. Optional OBDII interface (J1939/J1908) is also available for vehicle diagnostics. VTC 6210 features rich PAN, WLAN and WWAN wireless connectivity. With dual SIM cards support, VTC 6210 allows three SIM cards backup each other for a better connectivity quality by software. In addition, three SIM cards and dual WWAN modules architecture can increase the bandwidth for a faster data transmission speed. Not only data transmission, VTC 6210 also supports two-way voice communication. Equipped with intelligent power management, VTC 6210 can be waked on by ignition, RTC timer or SMS message remotely. By integrating the variety of I/O ports and 4x Mini-PCIe sockets expansibility, VTC 6210 keeps the flexibility to meet the demand for different telematics applications, such as infotainment, fleet management, dispatching system and video surveillance.

Specifications

CPU
- Intel® Atom™ processor quad core E3845, 1.91GHz

Memory
- 1 x 204-pin DDR3L SO-DIMM socket support 1066MHz/1333MHz up to 8GB. Default 2GB

Storage
- 1 x 2.5" SSD/HDD SATA 2.0 (externally accessible, optional lockable storage available)
- 1 x CFast (externally accessible)

Expansion
- 1 x full size Mini-PCIe socket (USB 2.0)
- 1 x full size Mini-PCIe socket (USB 2.0)
- 1 x full size Mini-PCIe socket (USB 2.0 + PCIe)
- 1 x half size Mini-PCIe socket (USB 2.0 + PCIe)

Function
- 1 x default U-blox UBX-G6010 GPS module (50-channel and Galileo) or optional modules with Dead Reckoning or GLONASS support
- Built-in G-sensor

I/O Interface-Front
- 4 x LED for power, storage, WWAN, WLAN
- 2 x externally accessible SIM card socket (selectable)
- 1 x phone jack 3.5mm for 1 x Mic-In
- 1 x phone jack 3.5mm for 1 x Line-Out
- 1 x externally accessible 2.5" SATA 2.0 SSD/HDD tray
- 1 x externally accessible CFast card socket with cover
- 1 x event button (trigger type)
- 1 x reset button
- 1 x type A USB 3.0 compliant host, supporting system boot up
- 4 x antenna hole for WWAN/WLAN/BT

I/O Interface-Rear
- 1 x 9~36VDC input with Ignition
- 2 x type A USB 2.0 compliant host, supporting system boot up
- 2 x RJ45 10/100/1000 Fast Ethernet with LED
- 1 x phone jack 3.5mm for 1 x Mic-In
- 1 x phone jack 3.5mm for 1 x Line-Out
- 1 x DB-15 VGA, resolution up to 2560 x 1600 @60Hz
- 1 x DP port, resolution up to 2560 x 1600 @60H
- 1 x antenna hole for GPS
- 2 x DB-9 RS-232 (RI/5V/12V selectable)
- 1 x DB-9 RS-422/485

Dimension Drawing

286
274
176
172
66
66
260
50
56
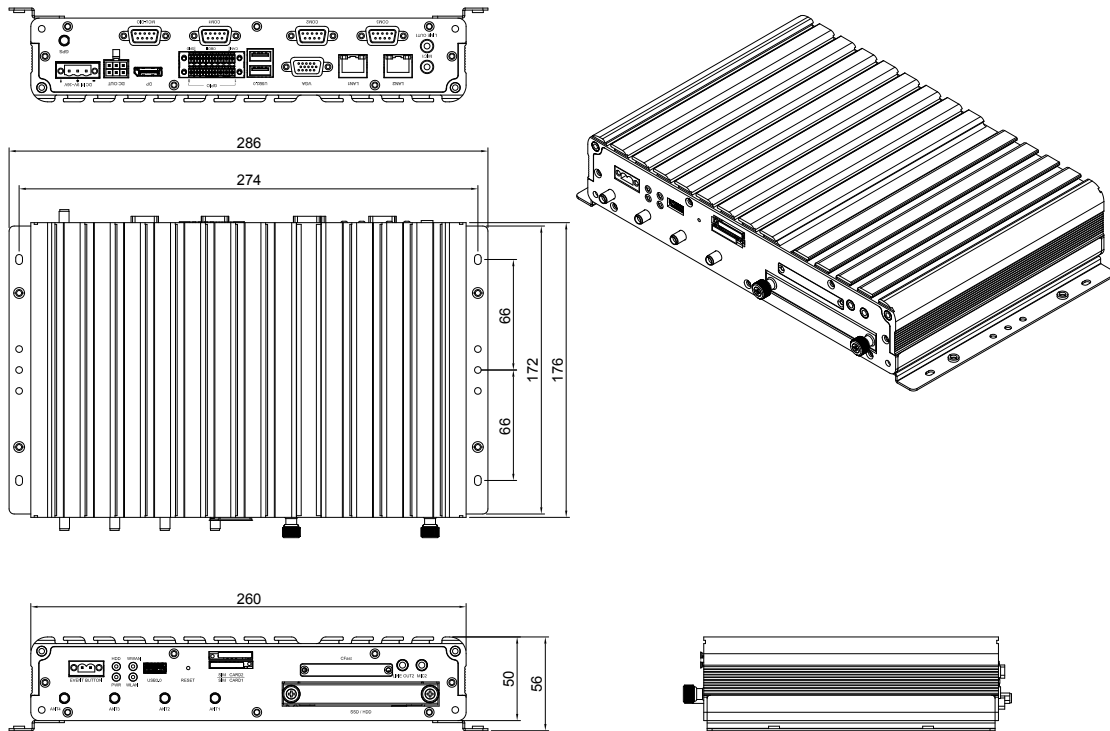
- 1 x DB-9 for CAN 2.0B (optional CAN Bus 2.0B Mini-PCIe card), 2 x MCU-DI and 2 x MCU-DO
- 1 x 16-pin terminal block
- 1 x CAN Bus 2.0B (on board)
- 1 x optional OBDII module (ASE J1939 or J1708)
- 8 x GPIO (Programmable Digital Input or optional isolation)
  Input voltage (internal type) : 5VDC TTL (default)
  Input Voltage (source type) : 3~12VDC (Programmable Digital Output or optional isolation)
  Digital Output (sink type) : 5VDC TTL (default), max current : 20mA
  Digital Output (source type) : 3~24VDC, max current : 150mA
- 1 x 12VDC output (2A), SM Bus

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

Operating System
- Windows 8, WES8
- Windows 7, WES8
- Fedora

Dimensions
- 260 mm (W) x 176 mm (D) x 50 mm (H) (10.24" x 6.93" x 1.97")
- Weight : 2.1kg

Environment
- Operating temperatures : Ambient with air -30°C to 70°C (SSD)
- Storage temperatures : -35°C to 85°C
- Relative humidity : 10% to 90% (non-condensing)
- Vibration (random) :
  1g@5~500 Hz (in operation, HDD), 2g@5~500 Hz (in operation, SSD)
- Vibration (SSD/HDD) :
  Operating : MIL-STD-810G, Method 514.6, Category 4, common carrier US highway truck vibration exposure
  Storage : MIL-STD-810G, Method 514.6, Category 24, minimum integrity test

- Shock (SSD/HDD) :
  Operating : MIL-STD-810G, Method 516.6, Procedure I, functional shock=20g
  Non-operating : MIL-STD-810G, Method 516.6, Procedure V, crash hazard shock test=75g

Certifications
- CE approval
- FCC Class B
- E13 Mark

Ordering Information

- **VTC 6210-BK (P/N : 10V00621000X0)**
  Intel® Atom™ processor E3845 1.91GHz CPU, 2GB DDR3L SO-DIMM, VGA/DP output, 2 LAN, 2 x RS-232, 1x RS-422/485, 8 x GPIO, 3 x USB, 12VDC output