

VTC 1010-IVI

Intel® Atom™ E3827 Fanless In-Vehicle Computer



Main Features

- Intel® Atom™ processor E3827, 1.75GHz
- Dual SIM cards + dual WWAN modules support
- Built-in U-blox 6 GPS, optional Dead Reckoning support
- Built-in CAN 2.0B. Optional OBDII function (SAE J1939/ J1708)
- 4x mini-PCIe expansion
- Wake on RTC/ SMS via WWAN module
- Compliant with MIL-STD-810G
- Built-in G-sensor, Gyroscope, and e-Compass sensors

Product Overview

VTC 1010-IVI features next generation Intel® Atom™ processor E3827, 1.75GHz, with powerful graphic and multimedia enhancement. VTC 1010-IVI is packed rugged, fanless, and 1 DIN compact enclosure. It is specifically designed to comply with stringent MIL-STD-810G military standard. VTC 1010-IVI comes with build-in CAN BUS 2.0B interface and optional OBDII (ASE J1939/ J1708) port to monitor the vehicle operating status real-time and trouble-shoot a non-working vehicle. With dual SIM cards design, it allows the choice of the best service carrier network and minimizes roaming cost. VTC 1010-IVI can be configured to work with two independent WWAN connections and can effectively increase the bandwidth for faster massive data transfer over the air. VTC 1010-IVI also supports two-way voice communication. Equipped with intelligent vehicle power management, VTC 1010-IVI can be waked up by ignition, timer, or remote dial-up for flexible operation or maintenance. VTC 1010-IVI can satisfy different demands for versatile telematics applications, such as infotainment, fleet management, dispatching system and mobile video surveillance.

Specifications

CPU

- Intel® Atom™ processor E3827, Dual Core 1.75GHz

Memory

- 1 x 200-pin DDR3L SO-DIMM socket support 1066MHz/ 1333MHz up to 8GB. Default 2GB

Storage

- 1 x 2.5" SATA 2.0
- 1 x SD card socket

Expansion

- 1 x full size Mini-PCIe socket (USB 2.0)
- 1 x full size Mini-PCIe socket (USB 2.0+ PCIe)
- 1 x full size Mini-PCIe socket (mSATA or 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, Gyroscope, and e-Compass sensors

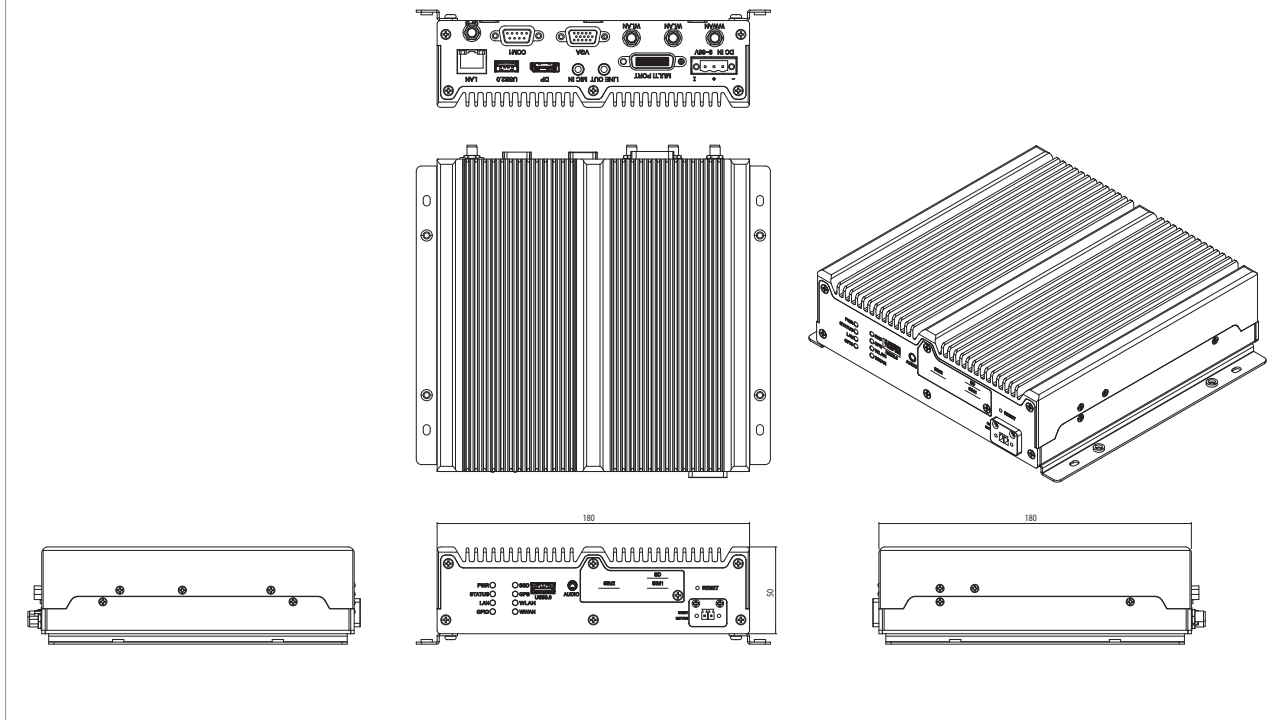
I/O Interface-Front

- 8 x LED for power, system status, storage, WWAN, WLAN, GPS, LAN, GPIO
- 2 x external accessible SIM card socket (selectable) with cover
- 1 x audio jack 3.5mm for WWAN voice communication, including 1 x Mic-In and 1 x Line-Out
- 1 x external accessible SD 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

I/O Interface-Rear

- 1 x 9~36VDC input with Ignition
- 1 x type A USB 2.0 compliant host, supporting system boot up
- 1 x RJ45 10/100/1000 Fast Ethernet with LED
- 1 x phone jack 3.5mm for 1 x Mic-In (for WWAN voice communication)
- 1 x phone jack 3.5mm for 1 x Line-Out (for PC audio)
- 1 x DB-15 VGA. Resolution up to 2560 x 1600 @60Hz
- 1 x DP port. Resolution up to 2560 x 1600 @60Hz
- 1 x DB-9 for RS-232
- 4 x antenna hole for GPS/ WWAN/ WLAN/ BT

Dimension Drawing



- 1 x LHF 60-pin connector
 - 1 x 6-pin power connector, 12VDC output (max: 1A)
 - 1 x type A female USB 2.0 compliant host, supporting system boot up
 - 1 x DB-9 RS-232
 - 1 x DB-9 RS-422/ 485
 - 1 x DB-9 female 3 x DI and 3 x DO. On board CAN 2.0B signals (Programmable Digital Input)
 - Input Voltage (Internal Type): 5VDC TTL (default)
 - Input Voltage (Source Type): 0~30VDC
 - (Programmable Digital Output)
 - Digital Output (Sink Type): 5VDC TTL (default), max current: 20mA
 - Digital Output (Source Type): 0~30VDC, max current: 250mA
 - 1 x DB-9 for optional ODBII module (ASE J1939 or J1708)
 - 1 x DB-9 for optional GPS Dead Reckoning module
 - 4 x BNC connector Video-In for optional 4-channel video capture card
 - 4 x audio connector for 7.1 channel audio output (front, center/ woofer, rear surround, side surround)

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 Professional, WES8
- Windows 7, WES7
- Tizen IVI

Dimensions

- 180 mm (W) x 180 mm (D) x 50 mm (H) (7.09" x 7.09" x 1.97")
- 1.7kg

Construction

- Fanless
- Aluminum fin top cover and front/ rear panels.
- SECC bottom enclosure

Environment

- Operating temperatures: Ambient with air: -30°C to 70°C
- Storage temperatures: -35°C to 85°C
- Relative humidity: 10% to 90% (non-condensing)
- Vibration (random): 1g@5~500 Hz (in operation, SSD)
- Vibration (SSD):
 - 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):
 - 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 1010-IVI (P/N: 10V00101001X2)

Intel® Atom™ processor E3827 1.75GHz CPU, 2GB DDR3L SO-DIMM, VGA/DP Output, 1 LAN, 2 x RS-232, 1 x RS-422/485, 3 x DI, 3 x DO, 3 x USB, 12VDC output