VTC 1000

Intel® Atom™ E640 Fanless In-Vehicle Computer

Main Features

- Compact and fanless design
- Built-in GPS receiver with pptional dead reckoning function
- Variety Wireless communication options
- Wake on RTC/ SMS via WWAN Module (Option)
- Wide range DC input from 6~ 36V
- Smart power management with Ignition on/off delay via software Control and low voltage protection
- Certified by CE/ FCC/ e13 Mark

Product Overview

VTC 1000, a compact rugged computer box, is designed for the transportation segment, especial for the vehicle with limited space to house the computer system. Same as all VTC series, the fanless and wide temperature support are reserved in VTC 1000 design. VTC 1000 adopts the Intel® latest processor, Atom™ E640 series. VTC 1000 does not compromise with its space to scarify its functional features. An advanced GPS receiver with dead reckoning is available as an option as well as the wireless communication. VTC 1000 is the best choice with the cost effective solution for your vehicle application.

Specifications

Main Chipset
- EG20T

CPU
- Intel® Atom™ E640 1.0GHz

Memory
- On-board DDR2 1GB (up to 2GB)

Expansion
- Mini-PCIe socket (PCIe + USB) x 1 (for WLAN module)
- Mini-PCIe socket (USB) x 1 (for 3.5G module)
- 1 x Bluetooth module (optional)
- 1 x GPS module

I/O Interface-Front
- 2 x LED indicators for power status and wireless communication
- 1 x COM port (RS-232)
- 2 x USB port
- 1 x RJ45 for 10/ 100/ 1000 Ethernet
- 1 x SIM card socket
- 1 x System reset button
- 1 x Mic-in, 1 x Line-out
- 1 x Power button
- 3 x antenna hole reserved for SMA-type antenna connector (HSDPA/ WLAN/ BT)

I/O Interface-Rear
- 1 x com port (2 x RS-422; or 2 x RS-485; or 1 x RS-422 and 1 x RS-485)
- 1 x com port (2 x GPIO)
- 1 x DB15 VGA port or DB26 LVDS (with 12V for backlight & USB2.0)
- 1 x DC output (5V/1A, 12V/1A)
- 1 x DC input via 3-pin connector

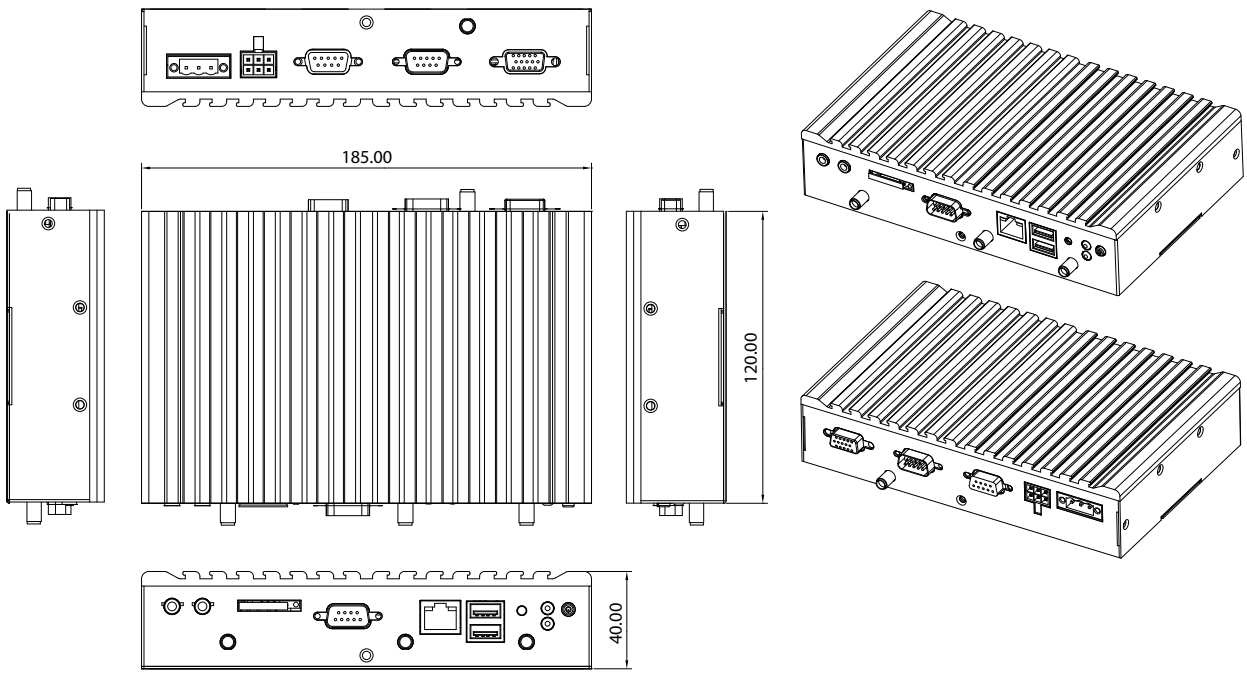
Expandable Storage
- 1 x 2.5" SATA SSD Bay

Power Management
- Selectable boot-up & shut-down voltage for low power protection
- HW design ready for 8-level delay time on/off at user's self configuration
- Power on/off ignition, software detectable
- Support S4 suspend mode; wake on RTC/ SMS

Dimensions
- 185 mm (W) x 120 mm (D) x 40 mm (H) (7.3" x 4.7" x 1.6")
- 1 Kg (2.20 Lb)

Construction
- Aluminum top case with metal sheet

Dimension Drawing



Environment

- Operating temperatures
  Ambient with air: -20°C to 70°C (SSD)
- Storage temperatures: -40°C to 80°C
- Relative humidity: 10% to 90% (non-condensing)
- Vibration (random): 2g @5~500 Hz with SSD
- Vibration:
  Operating: MIL-STD-810F, Method 514.5, Category 20, Ground Vehicle – Highway Truck
  Storage: MIL-STD-810F, Method 514.5, Category 24, Integrity Test

Shock

- Operating: MIL-STD-810F, Method 516.5, Procedure I, Trucks and semi-trailers= 20g
- Crash hazard: MIL-STD-810F, Method 516.5, Procedure V, Ground equipment= 75g

Certifications

- CE approval
- FCC Class B
- e13 Mark

Ordering Information

- **VTC 1000 (P/N: 10V00100001X0)**
  Intel® Atom™ E640 1.0GHz processor with 1GB DDR2, GPS module and GPS antenna, and VGA output
- **VTC 1000-2G (P/N: 10V00100002X0)**
  Intel® Atom™ E640 1.0GHz processor with 2GB DDR2, GPS module and GPS antenna, and VGA output
- **VTC 1000-LV (P/N: 10V00100003X0)**
  Intel® Atom™ E640 1.0GHz processor with 1GB DDR2, GPS module and GPS antenna, and LVDS output
- **VTC 1000-DK (P/N: 10V00100004X0)**
  Intel® Atom™ E640 1.0GHz processor with 1GB DDR2, GPS module in support of dead-reckoning and GPS antenna, and VGA output
- **Optional Accessories**

Part No.	Description
10VD0100000X0	VMD 1000-B 7" monitor w/ touch screen
10VK33M0100X0	VTK 33M-01 8.4" monitor w/ touch screen
10VK0061B00X0	VTK61B, back-up battery kit for 4 hours in system full loading
10VK0006013X0	Wireless mini card kit, Ralink 802.11b/g/n 2T2R, QCOM: Q802XKN5F, w/ antenna & cable (without assembly in NEXCOM)
10VK0006000X0	Sierra MC8790V kit, GPRS/ UMTS/ HSDPA, w/ internal cable, antenna & packing (without assembly in NEXCOM)
10VK0006007X0	Bluetooth kit, QCOM: QBTM400-01 (V7), w/ antenna & cable (without assembly in NEXCOM)
10VK0006004X0	GPS kit, GlobalSat: EM-313 w/ antenna & cable (without assembly in NEXCOM)
7400120002X00	Power adapter: 120-AAB (N09001),120W 19V/ 6.3A
60233SAM03X00	Internal cable for GSM/ WLAN/ GPS antenna connection MOQ: 20 pcs
60233SAM05X00	GPS antenna/ 5m/ SMA180P
60233SAM07X00	GSM/ GPRS antenna, SMA, support 850/ 900/ 1800/ 1900
60233SAM30X00	GPS+GSM combo antenna 5M/ SMA180P
60233SAM17X00	GPRS/ UMTS/ HSDPA antenna, SMA, support 850/ 900/ 1800/ 1900/ 2100

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