VTC 7100-D1K

Main Features

- Build-in Intel® Atom™ D2550 1.86GHz processor
- Support two Ethernet LAN ports
- Removable 2.5" SSD tray and CFast slot
- Optional CAN/OBDII module (CAN Bus 2.0B or OBDII SAE J1939)
- Support two SIM card sockets
- PCI-104 socket

- 9 ~ 36V wide range DC power input
- Smarter power management and low voltage protection
- Support isolation digital input/output and analog input
- Rugged fanless design to meet MIL standard
- Support 3 x Isolation RS-232 and 2 x RS-422/485
- Wake on RTC/SMS via WWAN module

Product Overview

VTC 7100-D1K, adopting the high performance processor, Intel® Atom™ D2550, is a new generation of VTC series. In additional to keep the advantage of existing VTC series, it offers dual LAN ports for edundancy, two high speed interface for storage, 2.5" SATA and CFast. The storage is easily accessible from the front side for maintenance concern. Furthermore, it offers the ODBII for heavy duty truck such as SAE J1939/J1708 and isolation digital input, output, RS-232 and RS-422/485. With the rich features, VTC 7100-D1K can satisfy your demand in vehicle applications.

Specifications

CPU
- Intel® Atom™ D2550 1.86GHz

Main Chipset
- ICH10R

Memory
- One 204-pin DDR3 1066MHz SO-DIMM slot (up to 4GB)

Expansion
- 1 x mini-PCIe socket (PCIe + USB) for WLAN option
- 1 x mini-PCIe socket (USB) for WWAN option
- 1 x Bluetooth module for option
- 1 x on board uBlox NEO-6Q GPS module or optional GPS with dead reckoning
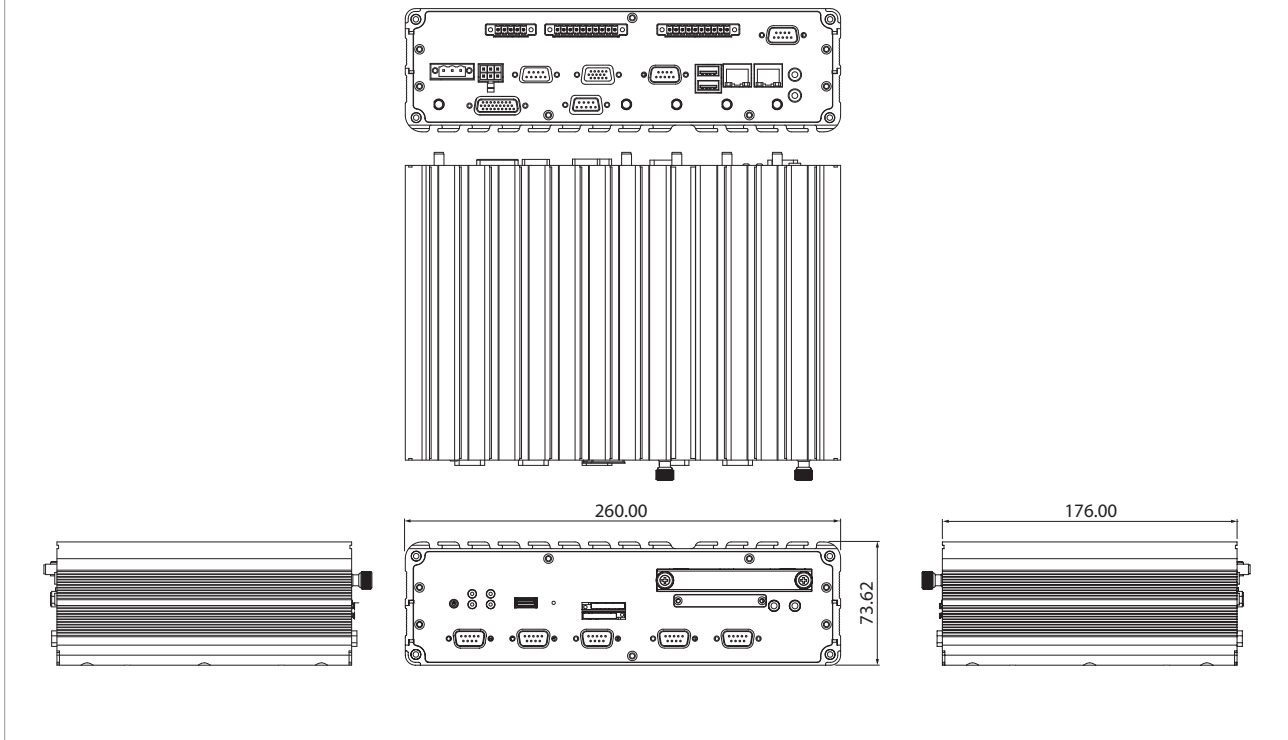
I/O Interface-Front
- 1 x Line-out, 1 x Mic-in (for WWAN CM8000 voice communication)
- 2 x SIM card socket (selectable)
- 1 x System reset button
- 1 x USB 2.0 host type A connector
- 1 x Power button
- 1 x CFast with protection cover
- 1 x Accessible 2.5" SATA II SSD tray (optional lockable storage available)
- 2 x DB9 isolation RS-422/485, Isolation: 5K Vrms
- 3 x DB9 isolation RS-232, Isolation: 5K Vrms
- 4 x LED's for power, storage, WLAN/WWAN and GPIO
- G sensor

I/O Interface-Rear
- 1 x 9 ~ 36VDC input with ignition and 29W typical power consumption
- 1 x 12V/4A DC output, SMBus
- 1 x DB26 LVDS interface with 12V and USB 2.0
- 1 x DB-15 VGA
- 1 x DB9 RS-232 (default) or optional CAN/OBDII module (CAN Bus 2.0B or OBDII SAE J1939)
- 1 x DB9 RS-422/485
- 1 x DB9 female connector for 4 x DI and 4 x DO
  (Digital Input)
    Input voltage (Internal Type): 5VDC TTL (default)
    Input voltage (Source Type): 3 ~ 12VDC
  (Digital Output)
    Digital output (Sink Type): 5VDC TTL (default), max current: 20mA
    Digital output (Source Type): 3 ~ 24VDC, max current: 250mA
- 10-Pin terminal block for 8 x DI and 8 x DO
  Isolation: 5K Vrms
  (Isolated Digital Input)
    Input voltage (Internal Type): 5VDC TTL (default)
    Input voltage (Source Type): 0 ~ 30VDC
  (Isolated Digital Output)
    Digital output (Sink Type): 5VDC TTL (default), max current: 20mA
    Digital output (Source Type): 0 ~ 30VDC, max current: 250mA
- 5-Pin terminal block for 3 x analog input
  Isolation: 2K Vrms
  2 x isolated analog voltage input 12VDC (Max.)
  1 x isolated analog current input 10A (Max.)
- 2 x USB 2.0 host type A connector
- 2 x RJ45 with LEDs for 10/100/1000Mbps Ethernet

NEXCOM

Dimension Drawing

260.00

73.62

176.00

- 1 x Line-out, 1 x Mic-in Operating System
- 1 x DB9 male connector for 1 x OBDII (default) or 2 x OBDII (option)
- 1 x SMA-type GPS antenna connector
- 4 x Antenna hole reserved for SMA-type antenna connector (WWAN/WLAN/BT)

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

Operating System
- WES 7
- Win7 Pro for Embedded
- Linux 2.6
- WES 2009

Dimensions
- 260mm (W) x 176mm (D) x 73.6mm (H) (10.24" x 6.93" x 2.9")
- 4 Kg (7.47 Lb)

Construction
- Aluminum enclosure with fanless design

Environment
- Operating temperatures:
  -30°C to 55°C (w/ industrial SSD) with air flow
  -20°C to 45°C (w/ commercial HDD) with air flow
- 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

Standards/Certifications
- CE approval
- FCC Class A
- e13 Mark

Ordering Information

- **VTC 7100-D1K (P/N: 10V00710004X0)**
  Intel® Atom™ D2550 1.86GHz, 2GB DDR3 SODIMM, LVDS/VGA Output, 1 x RS-232, 1 x RS-485/422 with isolation DI/DO, COM,1 x OBDII (SAEJ1939 or J1708)

- **Optional Accessories**

Part No.	Description
10VD0100000X0	VMD 1000-B 7" monitor w/touch screen
10VD0100101X0	VMD 1001-B 7" Monitor w/touch screen, VGA interface
10VD0200000X0	VMD 2000-B 8" Monitor w/touch screen
10VK0071F00X0	VTK 71F, fan Kit
10VK0006013X0	Wireless mini card kit, Ralink 802.11b/g/n 2T2R, QCOM: Q802XKN5F, w/antenna & cable (without assembly in NEXCOM)
10VK0WWAN01X0	Cinterion PHS8-P kit, Five bands, UMTS/HSPA(850/800, 900, 1900 and 2100 MHz), Quad-Band GSM w/internal cable, antenna & packing (without assembly in NEXCOM)
10VK0006007X0	Bluetooth kit, QCOM: QBTM400-01(V7), w/antenna & cable (without assembly in NEXCOM)
7400120002X00	Power adapter FSP: 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
60233SMA30X00	GPS+GSM combo antenna 5M/SMA180P
60233SAM17X00	GPRS/UMTS/HSDPA antenna, SMA, support 850, 900, 1800, 1900 and 2100 MHz
60233SAM07X00	GSM/GPRS antenna, SMA, support 850, 900, 1800, 1900
60233SMA30X00	GPS+GSM combo antenna 5M/SMA180P
60233SAM17X00	GPRS/UMTS/HSDPA antenna, SMA, support 850, 900, 1800, 1900 and 2100 MHz