VTC 2100

Intel® Atom™ D410 Fanless In-Vehicle Computer

Main Features

- Build-in Intel® Atom™ D410 1.6GHz processor
- Internal wireless communication (3.5G, GSM/ GPRS, WLAN, BT)
- Smarter ignition power on/off, delay-time and low voltage protection
- PCI-104 and mini card for expansion
- 8~60V wide range DC power input
- Dual VGA output (Clone mode)
- Fanless design
- Support 2 x RS-232/ 1 x RS-485

Product Overview

The VTC 2100 is an economic version of car pc with high performace for use in transportation application. The VTC 2100 system is designed in a very compact form factor, yet maintaining the industrial requirements for high availability, wide operation temperature range, and better vibration protection. The design also follows the in-vehicle industrial standard, like eMark. More features required for in-vehicle operations, such as power ignition delay control, low-power protection, SMBus connection and capture module, etc., are continued from others of NEXCOM's in-vehicle computer products. The GPS is an integrated function of VTC 2100. With expansion capability, the 3.5G, Bluetooth, etc., can be added to cover varieties of application requirements. Dual VGA display connections make the VTC 2100 an ideal choice for in-vehicle signage platforms as well.

Specifications

CPU
- Intel® Atom™ D410 Single Core 1.6GHz

Main Chipset
- ICH8M

Memory
- One 200-pin DDR2 667/ 800MHz SO-DIMM slot (up to 2GB)

Expansion
- 1 x Mini-PCIe socket (PCIe + USB) for WLAN option
- 1 x Mini-PCIe socket (USB) x 1 for WWAN option
- 1 x Bluetooth module for option
- 1 x Bundle GPS module or optional GPS with dead reckoning
- 1 x PCI-104 x 1

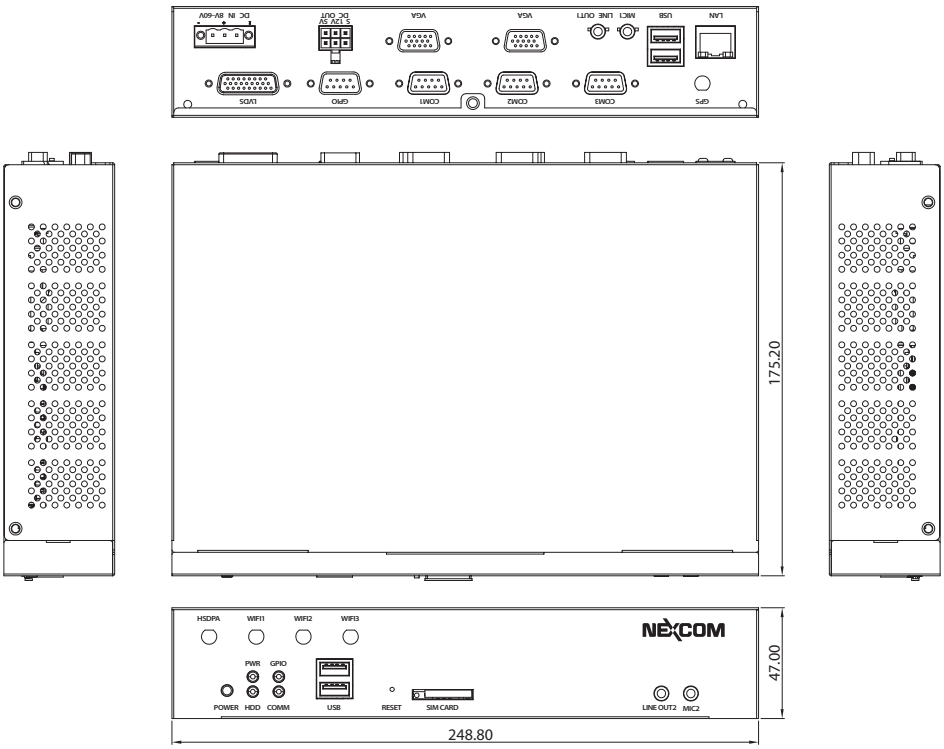
I/O Interface-Front
- 1 x Line-out, 1 x Mic-in
- 1 x SIM card socket
- 1 x System reset button
- 2 x USB 2.0 host type A connector
- 4 x LED's for power, storage, WLAN/ HSDPA and GPIO
- 1 x Power button
- 4 x Antenna hole reserved for SMA-type antenna connector (WWAN/ WLAN/ BT)

I/O Interface-Rear
- 1 x 8~60VDC input with Ignition and 23W typical power consumption
- 1 x 5V/1A and 12V/1A DC output, SMBus
- 1 x DB26 LVDS interface with 12V and USB2.0
- 1 x DB9 female connector for 4GPI and 4GPO
- 2 x DB9 RS-232 (COM1, COM2)
- 1 x DB9 RS-485 w/ auto flow control (COM3, optional RS-232)
- 2 x DB15 VGA (clone mode)
- 1 x Line-out, 1 x Mic-in
- 2 x USB 2.0 host type A connector
- 1 x RJ45 with LEDs for 10/ 100/ 1000Mbps Ethernet
- 1 x SMA-type GPS antenna connector

Expandable Storage
- 1 x 2.5" SATA II HDD 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 S3/ S4 suspend mode

Dimension Drawing



Operating System
- Windows XP/ WES2009
- WES 7E

Dimensions
- 248.8mm (W) x 175.2mm (D) x 47mm (H) (9.8" x 6.9" x 1.85")
- 1.49 Kg (3.28 Lb)

Construction
- Metal sheet

Environment
- Operating temperatures:
  Ambient with air:
  -10°C to 50°C (SSD)
  -10°C to 50°C (HDD)
- Storage temperatures: -40°C to 80°C
- Relative humidity: 10% to 90% (non-condensing)
- Vibration (random): 2g@5~500 Hz with SSD; 1g@5~500 Hz with HDD (In operation)
- 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

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

Ordering Information

- **VTC 2100 (P/N: 10V00210000X0)**
  Intel® Atom™ D410 1.6GHz processor w/ 1GB DDR2, GPS module and GPS antenna

- **Optional Accessorie**

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
10VD0200200X0	VMD 2002-B 8" Monitor w/ touch screen, cable integration
10VK0061B00X0	VTK 61B, 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)
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)
10VK00GPS00X0	SKYTRAQ GPS + GLONASS, w/ antenna & cable
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