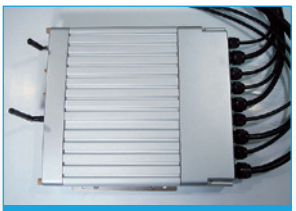
VTC 6100

Intel® Atom™ N270 Fanless In-Vehicle Computer



VTC 6100 with optional IP65 enclosure

Main Features

- Build-in Intel® Atom™ N270 processor
- Availability of GSM/ GPRS/ WCDMA/ HSDPA/ GPS
- e13 mark certifi cation
- External smart battery back up support
- Power ignition on/off delay control
- Circuitry design for low power protection
- 6~36V DC power input
- 1 PCI-104 expansion slot
- Multiple display interface connections (VGA, DVI-D and LVDS)
- Optional IP65 enclosure

Product Overview

The VTC 6100 is an innovative in-vehicle computer for use in any car, truck, or even for maritime applications. The design itself makes the system available as a complete system allowed the user easily defi ne and build requirements. Thanks to the extremely-low power consumption nature from Intel® Atom™ processor, the VTC 6100 mechanical design is even more compact yet reach wider operating temperature range than ever. The VTC 6100 fulfills vehicle industry requirements. The design itself is in compliance with vehicle industrial standard such as eMark. More features required for in-vehicle operations, such as power ignition delay control, low-power protection and SMBus connection, etc., are continued from others of NEXCOM's in-vehicle computer products. The GPS function navigates drivers to ultimate the fl eet management. Optional 802.11b/g/n, 3.5G, and Bluetooth availability make the VTC 6100 ready for wider coverage and future trend. Multiple display connections make the VTC 6100 an ideal choice for in-vehicle signage platforms as well.

Specifications

CPU
- Intel® Atom™ N270 1.6GHz

Main Chipset
- 945 GSE + ICH7M

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

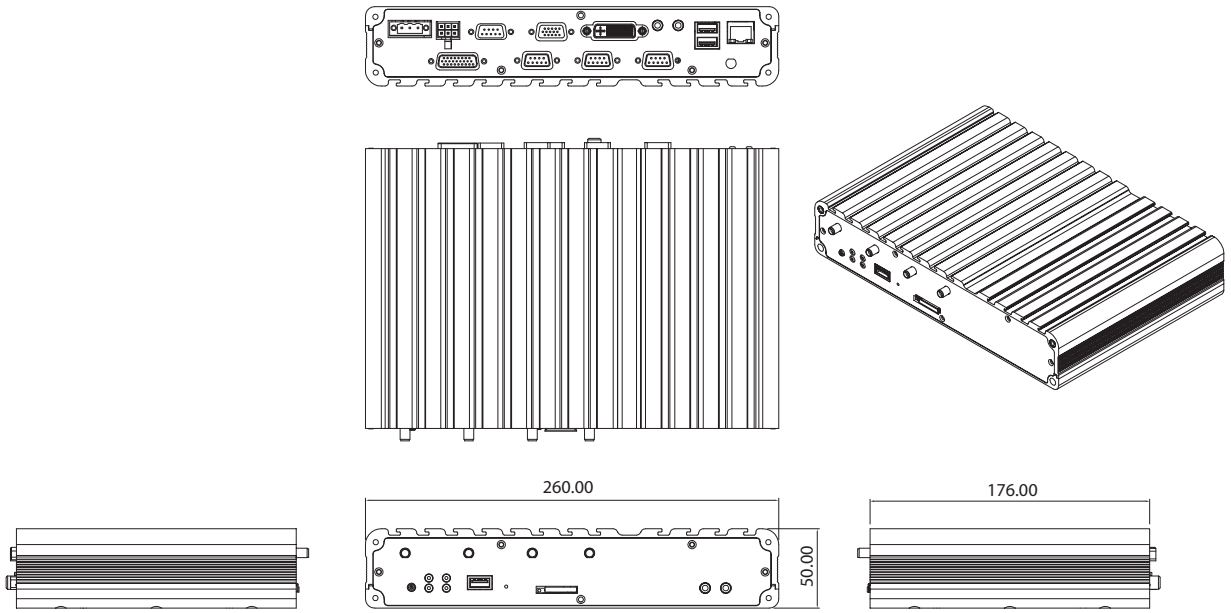
Expansion
- 1 x Mini-PCIe socket (PCIe + USB) for WLAN option
- 1 x Mini-PCIe socket (USB) x 1 for WWAN option
- 1 x Bluetooth module for option
- 1 x PCI-104

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

I/O Interface-Rear
- 1 x 6V~36VDC input with Ignition and 17W typical power consumption
- +5V/+12V DC output, SMBus
- 5V DC (1A), 12V DC (1A), without VTK 33M-01
- 5V DC (0.5A), 12V DC (0.5A), with VTK 33M-01
- 1 x DB9 female connector for 4GPI and 4GPO
- 1 x DB15 VGA
- 1 x DVI-D
- 1 x DB26 LVDS interface with 12V and USB2.0
- 2 x DB9 RS-232
- 1 x DB9 RS-232/485 w/ auto flow control
- 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
- 1 x Type II CompactFlash socket

Dimension Drawing



Power Management
- Boot-up & shut-down voltage setting selectable 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

Operating System
- Windows XP/ WES2009
- WES 7E

Dimensions
- 260mm (W) x 176mm (D) x 50mm (H) (10.24" x 6.93" x 1.97")
- 2.42 Kg (5.34 Lb)

Construction
- Aluminum enclosure with fanless design

Environment
- Operating temperature:
  -30°C to +60°C with CF or automotive HDD
- Storage temperature:
  -40°C to +80°C@relative humidity 10% to 90% non-condensing
- Vibration (w/o vibration kit):
  2G@5-500Hz random with CF
  1G@5-500Hz random with automotive HDD
  MIL-STD-810F Method 514.5 Category 20
  Ground vehicle-highway truck (in operation)
- Shock:
  Operating: MIL-STD-810F Method 516.5, Procedure I, Trucks and semi-trailers=20g
  Non-operating: MIL-STD-810F, Method 516.5, Procedure V, Ground equipment=75g

Ingress Protection
- IP65 compliant (w/ VTK 61P)

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

Ordering Information

- **VTC 6100 (P/N: 10V00610000X0)**
  Intel® Atom™ N270 1.6GHz processor & 1GB DDR2 memory & GPS module & GPS antenna
- **VTC 6100-DK (P/N: 10V00610011X0)**
  Intel® Atom™ N270 1.6GHz processor, 1GB DDR2 memory, dead reckoning GPS module and GPS antenna
- **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
10VD0200200X0	VMD 2002-B 8" Monitor w/ touch screen, cable integration
10VK0033V00X0	VTK 33V, anti-vibration / fan Kit
10VK0061B00X0	VTK 61B, back-up battery kit for 4 hours in system full loading
10VK0060P00X0	VTK 60P, IP65 protection kit for VTC 6000
10VK0061P00X0	VTK 61P, IP65 protection kit for VTC 61XX series & VTC 6200-NI
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