

VTC 6100

Intel® Atom™ N270 Fan-less 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 Certification
- ♦ 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 VTC6100 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 define and build requirements. Thanks to the extremely-low power consumption nature from Intel Atom processor, the VTC6100 mechanical design is even more compact yet reach wider operating temperature range than ever. The VTC6100 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 fleet management. Optional 802.11b/g/n, 3.5G, and Bluetooth availability make the VTC6100 ready for wider coverage and future trend. Multiple display connections make the VTC6100 an ideal choice for in-vehicle signage platforms as well.

Specifications

Main Chipset

- ♦ 945 GSE + ICH-7M

CPU

- ♦ Atom N270 1.6GHz

Memory

- ♦ DDR2 400/533 SO-DIMM up to 2GB

Expansion

- ♦ 1 x PCI-104
- ♦ 1 x Bluetooth module (Optional)
- ♦ 2 x Mini PCI express Socket
 - 1 x PCIe interface
 - 1 x PCIe & USB interface

I/O interface-Front

- ♦ 4 x SMA-type for WLAN, HSDPA, Bluetooth
- ♦ 1 x Power button
- ♦ 1 x Reset switch
- ♦ 1 x SIM Socket
- ♦ 1 x USB

- ♦ 4 x LED's for Stand-by, HDD, WLAN/HSDPA and GPO
- ♦ 1 x Mic-in & 1 x Line-out

I/O interface-Rear

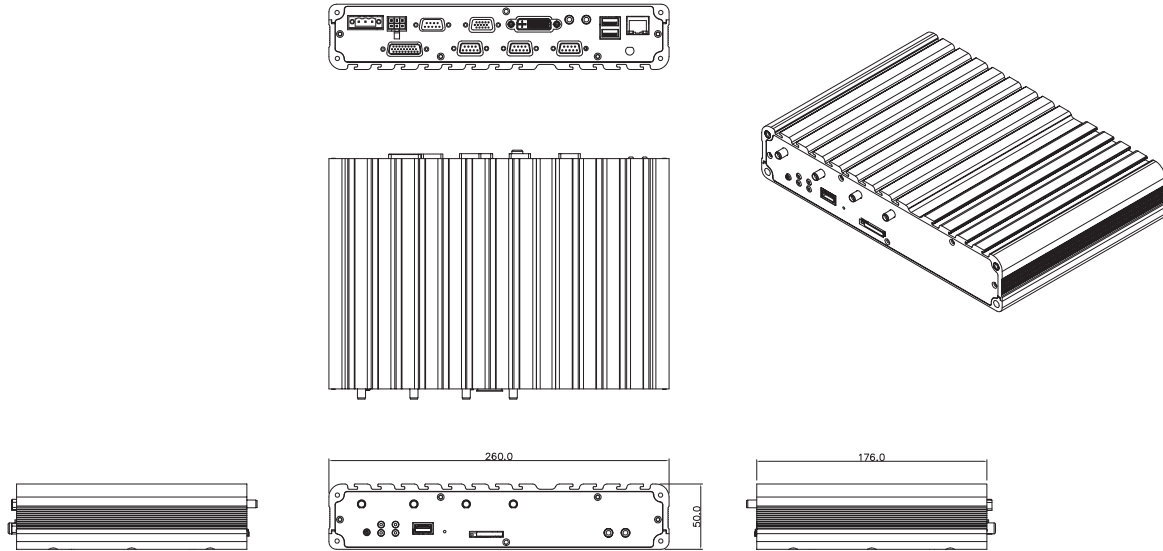
- ♦ 2 x RS232
- ♦ 1 x RS232/485 w/ auto flow control
- ♦ 1 x DB26 LVDS (w/ +12V for backlight power & USB2.0)
- ♦ 1 x DB15 VGA
- ♦ 1 x DVI-D
- ♦ 2 x USB2.0
- ♦ 1 x 10/100/1000 Ethernet
- ♦ 1 x Mic-in & 1 Line-out
- ♦ 1 x SMA- type for GPS
- ♦ 1 x GPIO (4 input & 4 output)
- ♦ 6V ~ 36V DC thru 3-pin connector (ignition, power & ground)
- ♦ +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

Expandable storage

- ♦ 1 x 2.5" SATA II HDD + 1 x CF



Dimension Drawing



Power management

- Selectable for 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, SW detectable
- S3 suspend mode support

IP rating

- IP65 compliant (w/ VTK 60P)

Dimensions

- 260mm(W) x 176mm(D) x 50mm(H) (10.24"(W) x 7"(D) x 1.97"(H))

Construction

- Aluminum enclosure with fanless design

Environment

- Operating Temperature
-30°C ~ +60°C with CF or Automotive HDD
- Storage Temperature
-40°C ~ +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 C-17 Category 20 Gound Vehicle-Highway Truck (in operation)
- Shock
Operating: MIL-STD-810F Method 516.5, Proceure I, Trucks and semitrailers=20g
Non-Operating: MIL-STD-810F, Method 516.5, Procedure V, Gound equipment=75g

Certifications

- CE approval
- FCC Class B
- e13 Mark

Ordering Information

- **VTK 6100**
with Atom™ N270 1.6GHz & 1GB DDR2 memory & GPS module & GPS antenna

Optional Accessories

Part No.	Description
10VK0006002X0	Wireless Mini Card, 802.11 a/b/g/n, Intel: 4965AGN, w/antenna & cable. w/o packing
10VK0006000X0	Sierra MC8790V, GPRS/UMTS/HSDPA, w/internal cable and antenna. w/o packing
73H7400G04X00	Seagate 2.5" SATA, automotive HDD 40G, 5400rpm, -30C~85C, vibration 2G
73H7800G09X00	Seagate 2.5" SATA, automotive HDD 80G, 5400rpm, -30C~85C, vibration 2G
10VK0033V00X0	VTK 33V, Anti-Vibration / Fan Kit
10VK33M0100X00	VTK 33M-01, 8.4" monitor w/ Touch Screen
10VK0033B00X00	VTK 33B, Smart Battery Kit
60233SAM16X00	WLAN antenna for IEEE 802.11 a/b/g/n
60233SAM05X00	GPS antenna /5m/SMA180P
60233SAM17X00	GPRS/UMTS/GPRS Antenna, SMA, support 850/900/1800/1900/2100
60233SAM07X00	GSM/GPRS Antenna, SMA, support 850/900/1800/1900
73AE512M02X00	DDR2 Memory 512MB, -40°C~85°C, PQI (#AC60-5120R0444)
73AE001G02X00	DDR2 Memory 1GB, -40°C~85°C, PQI (#AC60-1030R0444)
7400120003X00	POWER ADAPTER w/ US type power cord FSP:120-AAB(N09002),120W 19V/6.3A
7400120004X00	POWER ADAPTER w/ Schukotype power cord FSP:120-AAB(N09003),120W 19V/6.3A
7400120005X00	POWER ADAPTER w/ UK type power cord FSP:120-AAB(N09004),120W 19V/6.3A
7400120002X00	POWER ADAPTER Only FSP:120-AAB(N09001),120W 19V/6.3A
60233SAM03X00	Internal cable for GSM/WLAN/GPS antenna connection. MOQ: 20 pcs