



## Main Features

- ♦ Support Intel® Core™ 2 Duo SL9400 processors
- ♦ Availability of GSM/ GPRS/ WCDMA/ HSDPA/ GPS
- ♦ 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 6120 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. The VTC 6120 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 VTC 6120 ready for wider coverage and future trend. Multiple display connections make the VTC 6120 an ideal choice for in-vehicle signage platforms as well.

## Specifications

### CPU

- ♦ Intel® Core™ 2 Duo SL9400 processors

### Main Chipset

- ♦ Intel® GS45 and ICH9M

### Memory

- ♦ One 204-pin DDR3 1066/ 1333MHz 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
- ♦ 1 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 6~36VDC input with Ignition and 34W typical power consumption
- ♦ 1 x 5V/1A and 12V/1A DC output, SMBus
- ♦ 1 x DB26 LVDS interface with 12V and USB2.0
- ♦ 2 x DB9 RS-232 (COM1, COM2)
- ♦ 1 x DB9 RS-485 w/ auto flow control (optional RS-232, COM3)
- ♦ 1 x DB9 female connector for 4GPI and 4GPO
- ♦ 1 x DB15 VGA
- ♦ 1 x DVI-D
- ♦ 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

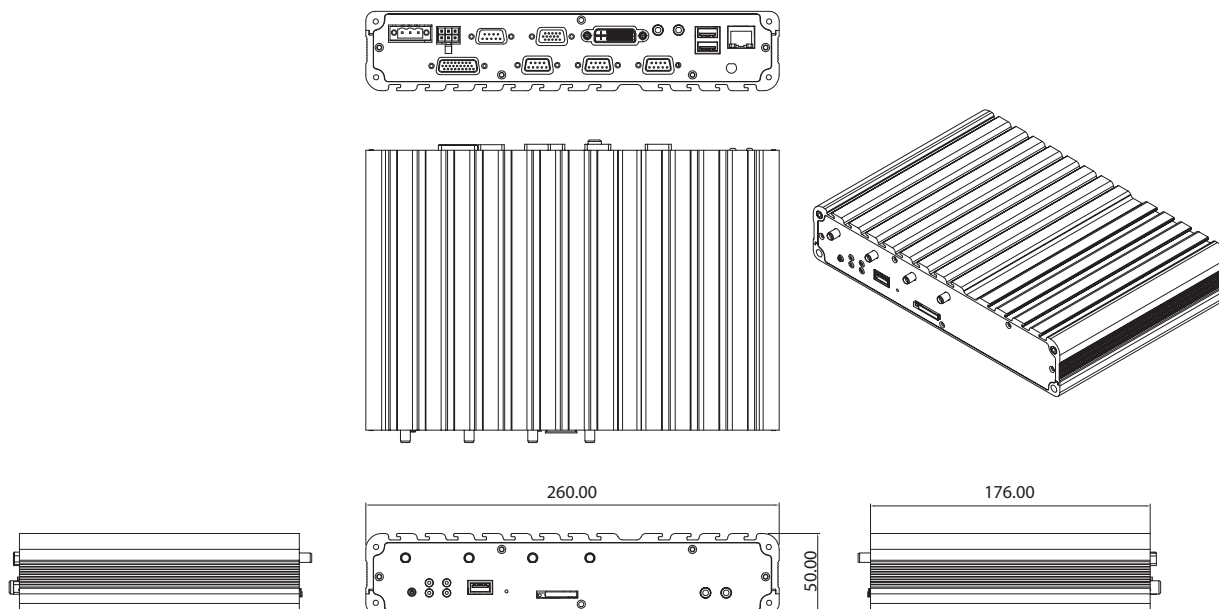
### Expandable Storage

- ♦ 1 x 2.5" SATA II HDD bay
- ♦ 1 x Type II CompactFlash socket

### 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

## Dimension Drawing



### 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 temperatures:
  - 30°C to 50°C (SSD)
  - 30°C to 45°C (commercial 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)
  - (sine): 2g @ 5~500 Hz with SSD; 2g @ 5~500 Hz with HDD (non operation)
- Vibration (with SSD):
  - 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 (with SSD):
  - 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 6120 (P/N: 10V00612000X0)

Intel® Core™ 2 Duo SL9400 processor, 1GB DDR3, 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) |
| 10VK00GP500X0 | 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<br>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  |