

VTC 6221

Intel Atom® E3950 Fanless In-Vehicle Computer
with E Mark Conformity



Main Features

- Intel Atom® processor quad core E3950, up to 2.0GHz
- Six SIM cards + three WWAN modules support
- Built-in u-blox-M8 GPS
- Built-in CAN Bus 2.0B
- 1 x External storage (compatible with 9mm disk)
- E mark conformity
- 3 x mini-PCIe + 2 x M.2 socket expansion
- Wide voltage input 9~48 VDC
- Three video outputs, two VGA and one HDMI
- 1 x Mic-in, 2 x Line-out

Product Overview

VTC 6221, based on Intel® Core™ quad core processor E3950 (up to 2.0GHz), is specifically comply with stringent E mark standard in rugged, fanless and compact mechanism. VTC 6221 provides complete communication capability between vehicle and computer with build-in CAN Bus 2.0B interface. VTC 6221 features rich WLAN and WWAN wireless connectivity. With dual SIM cards per modem support, VTC 6221 allows six SIM cards backup each other for a better connectivity quality by software. In addition, six SIM cards and three WWAN modules architecture can increase the bandwidth for a faster data transmission speed. Equipped with intelligent power management, VTC 6221 can be waked on by ignition, RTC timer or SMS message remotely. By integrating the variety of I/O ports and 3 x mini-PCIe, 2 x M.2 sockets expansibility, up to three screens via VGA and HDMI connections, VTC 6221 keeps the flexibility to meet the demand for different vehicle applications, such as infotainment, dispatching system, cellular/wireless network connectivity, and video surveillance. The design of mini-PCIe slots x 3 can solve the potential request from the market when needed.

Specifications

CPU

- Intel Atom® processor E3950, up to 2.0GHz, 12W, 4 core

Memory

- 1 x 204-pin DDR3L SO-DIMM socket support 1866MHz up to 8GB. default 4GB

Video Output

- Chipset Intel® HD graphics 505
- 1 x HDMI 1.4b up to 4096 x 2160 @30Hz
- 2 x VGA up to 1920 x 1200 @60Hz

Storage

- 1 x 2.5" SATA 3.0 external SSD (compatible with 9mm drive)
- 1 x CFast (externally accessible), optional mSATA

Expansion

- 1 x Full size mini-PCIe socket (USB 2.0) with 2 x external SIM
- 1 x Full size mini-PCIe socket (USB 2.0 + PCIe 2.0), BOM optional full size mini-PCIe socket (USB 2.0) with 2 x external SIM
- 1 x Full size mini-PCIe socket (USB 2.0 + PCIe 2.0)
- 1 x M.2 3042 key B (USB 2.0, USB 3.0) with 2 x external SIM
- 1 x M.2 3042/3050/3052 key B (USB 2.0, USB 3.0, PCIe 2.0 (BOM optional)) with 2 x external SIM

GNSS and On Board Sensor

- 1 x Default u-blox NEO-M8N GNSS module for GPS/Glonass/QZSS/Galileo/Beidou
- Optional M8U modules with dead reckoning available
- G Sensor (3-axis, 10-bit resolution)

LAN

- 2-Port LAN, 10/100/1000 Mbps i210-IT GbE, optional 3-port LAN

I/O Interface-Front

- 12 x LED indicators (including 2 x programmable LED)
- 6 x Externally accessible SIM card sockets with cover
- 1 x 2.5" removable SSD tray
- 1 x Externally accessible CFast card socket with cover
- 1 x Reset button
- 1 x Power button
- 1 x USB 3.0 type A (5V/0.9A)
- 8 x SMA antenna

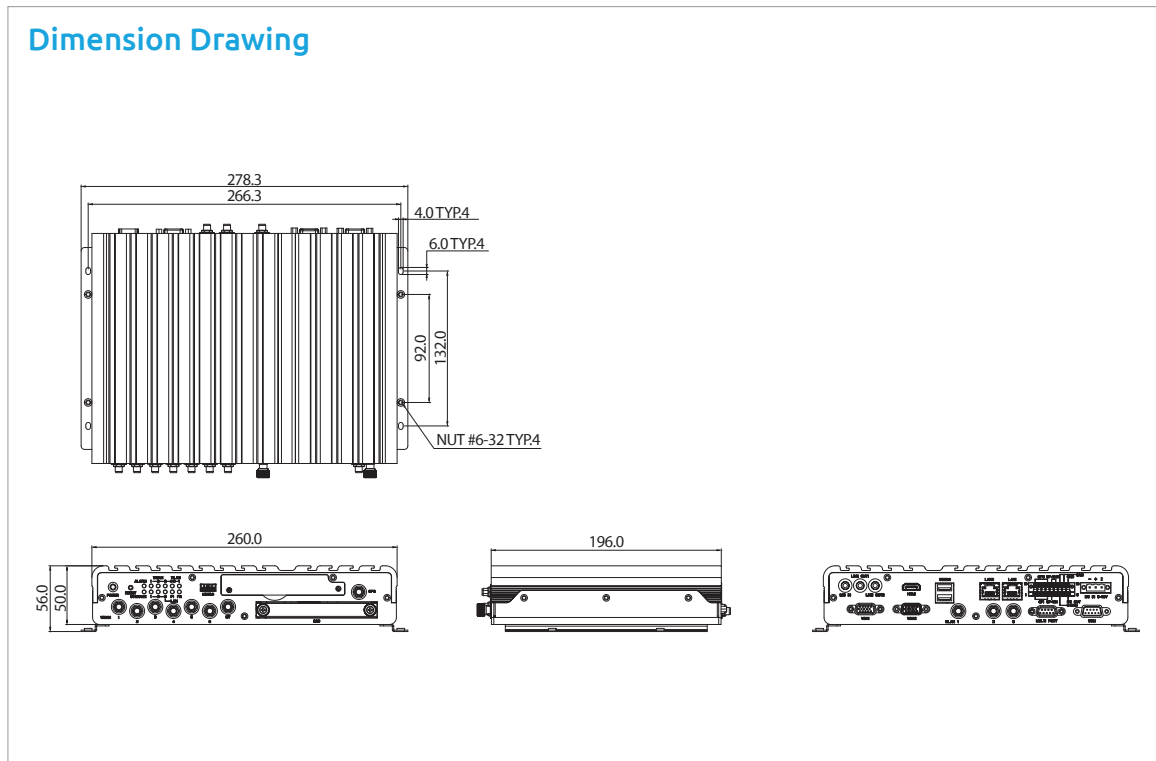
I/O Interface-Rear

- 1 x 3-pin terminal block for 9V~48 VDC
- 2 x USB 2.0 type A (5V/0.5A)
- 2 x RJ45 LAN port, 10/100/1000 Mbps
- 1 x Mic-in, 2 x Line-out

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Dimension Drawing



- 2 x VGA
- 1 x HDMI 1.4b
- 1 x DB9 (COM) Full RS232
- 3 x SMA antenna
- 1 x DB9 (MULTI PORT) for RS232 TX/RX, RS485, USB 2.0
- 1 x 18-pin terminal block
 - 1 x CAN Bus 2.0B (onboard)
 - 4 x DI
 - 4 x DO
 - Vin, GND for GPIO

Power Management & Software Support

- Power input 9~48 VDC
- Selectable boot-up & shut-down voltage for low power protection by software
- Setting 8-level power on/off delay time by software
- Support S3/S4 suspend mode
- 10~255 seconds WDT support, setup by software
- SDK (Windows/Linux) including utility and sample code

Operating System

- Windows 10/Linux

Dimensions

- 260mm (W) x 196mm (D) x 50mm (H) (10.24" x 7.71" x 1.97")

Weight

- 2.5kg

Environment

- Operating temperatures:
 - -40°C to 70°C (w/ industrial SSD) with air flow
- Storage temperatures: -40°C to 80°C
- Relative humidity: 10% to 90% (non-condensing)
- Vibration (random)
 - 2g@5~500 Hz (in operation, SSD)
- Shock (SSD/HDD):
 - 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
- FCC Class A
- E13 mark

Ordering Information

• VTC 6221 (P/N: 10V00622100X0)

Intel Atom® processor E3950 CPU, 4GB DDR3L SO-DIMM, DC input 9~48 VDC, 2 x VGA, 1 x HDMI, 2 x LAN, 2 x RS232, 1 x RS485, 4 x GPIO, 4 x USB

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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