VMC 1100

7" All-In-One Vehicle Computer
with Touch Screen and Multifunctional Tracker

Main Features

- 7" WVGA TFT LCD Monitor with resistor touch screen
- Built-in Intel® Atom™ Dual Core E3825 1.33GHz
- Compact and fanless design
- On screen F1 ~ F5 function key
- Support GPS/GPRS/GSM tracker function
- Built-in GPS (Option: Dead Reckoning Support)
- Variety wireless communication options (Support LTE)
- Dual CAN bus support and support option OBDII (SAE J1939)
- Wide Range DC input from 9 ~ 36V
- SAE J1113, ISO7637-2 and SAE J1455 conformity for power design

Product Overview

VMC 1100, a new generation 7-inch vehicle mount computer with dual core Intel® Atom™ processor, is designed for transportation applications requiring real-time vehicle tracking. Adopting the latest low power consumption processor and integrating a WVGA LCD with a brightness of 400nits and a 4-wire resistive touch sensor, VMC 1100 does not compromise with its space to sacrifice its functional features. It provides dual CANbus, RS-232, RS-485, USB 3.0, GPIO, analog input, PWM and LAN signal. For security, VMC 1100 supports real-time vehicle tracking through GPS and SMS/GSM/GPRS. VMC 1100 can also be upgraded to a different LCD resolution and include other features such as LTE, projected capacitive touch, CANbus protocol support and backup battery.

Specifications

General

- Cooling System: Fanless
- Enclosure: Plastic PC + ABS with aluminum die casting heatsink
- Mounting: Support VESA 75, stand mounting
- Four SMA Type antenna connectors of BT/Wi-Fi /WWAN/GPS
- Power Input: 9 ~ 36VDC input with Ignition
- Power Consumption: 26W
- Ingress Protection: Front panel IP54
- Dimension: 213mm (W) x 145mm (H) x 50mm (D)(8.3" x 5.7" x 1.9")
- Weight: TBD

LCD Panel

- 7-inch TFT LCD Panel with LED Backlight
- 800 x 480 pixels (WVGA)
- Brightness: 400 cd/m² (typical)
- Contrast ratio: 600:1 (typical)

Touch Screen Sensor

- 4-wire resistant touch
- Anti-glare coating surface
- Transmission rate: 78 ± 3%

CPU & Chipset

- Intel® Atom™ Dual Core E3825 1.33GHz

Memory

- One 204-pin DDR3L 1600MHz SO-DIMM slot (up to 4GB)
  - Default 2GB

Expandable Storage

- 1 x SATAIII SATA DOM Slot (available option 16G and 32G)

Expansion

- 1 x Half mini-PCIe socket (PCIe + USB) for WLAN option
- 1 x mini-PCIe socket ((USB + UART) for WWAN option)
- 1 x External module for OBD/Battery module option (UART + USB)

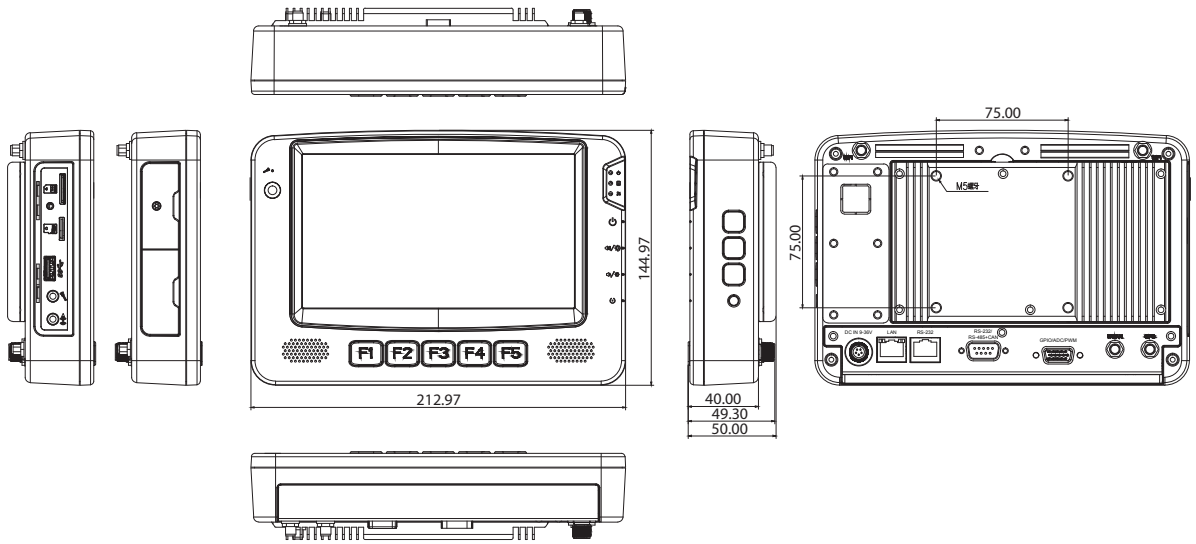
I/O Interface-Front

- F1 ~ F5 functions key
- Light Sensor
- Internal Mic-in
- 2 x Built-in 2W speakers
- 3 x LED indicators (Power mode, Storage and WWAN status)

I/O Interface-Lateral

- Right side
  - 1 x Micro SD card socket
  - 1 x SIM card socket
  - 1 x USB 3.0 host type A connector
  - 1 x Mic-in, Line-out
- Left side
  - 1 x Power button
  - 1 x System reset button
  - Volume up/down or Brightness up/dow

Dimension Drawing



I/O Interface-Rear

- 1 x 5-pin Circular connector for Power/Ignition input
- 1 x RJ45 for LAN
- 1 x RJ45 for Full RS-232 with 0V/5V/12V power supply (0.5A)
- 1 x DB9 (Male) for
  - RX/TX or RS-485
  - 2 x CAN Bus 2.0
- 1 x DB15 (Female) for
  - GPS dead reckoning interface (optional)
  - 2 x PWM, 2 x Analog Input, 3 x GPO, 3 x GPI
    Analog Input requirement for Voltages are measured
    Channel: 8
    Voltage range: 0 ~ 38V
    Resolution: 8 bit

    Analog Input requirement for Frequency, Speed
    Square wave
    Frequency signal offset voltage range: 0 ~ 15VDC
    Protection: +/- 500V spike
    Frequency signal duty cycle range: 10% ~ 90%

Communication Module

- 1 x u-blox NEO-M8N module
  (support GPS/Gloness/QZSS/Galileo/Beidou)
- 1 x WLAN or Bluetooth module for optional
- 1 x WWAN module for optional

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 and S4 suspend mode; wake on RTC and SMS

Operating System

- Windows 8 Professional, WES8
- Windows 7, WES7
- Linux Fedora (kernel V3.2.0)

Environment

- Operating temperatures: Ambient with air -20°C to 60°C
- Storage temperatures: -30°C to 80°C
- Relative humidity: 10% to 95% (non-condensing)
- Vibration (random): 3g @5 ~ 500Hz
- Vibration
  Operating: MIL-STD-810G, 514.6 Procedure 1, Category 4
  Storage: MIL-STD-810G, 514.6 Procedure 1, Category 24
- Shock
  Operating: MIL-STD-810G, Method 516.6, Procedure I, trucks and semi-trailers=20g
  Crash hazard: MIL-STD-810G, Method 516.6, Procedure V, ground equipment=75g

Power Design & Protection

- Load dump and inductive load protection
- Cold cranking protection
- Transient voltage protection
- Electrostatic discharge protection

Standards/Certifications

- EMC
  - CE, FCC class B, eMark
- Power
  - SAE J1113
  - SAE J1455
  - ISO 7637-2
- Safety
  - EN 60950-1 LVD

Ordering Information

- **VMC 1100 (P/N: 10VC0110000X0)**
  7" All-In-One Vehicle Computer with Touch Screen and Multifunctional Tracker and Intel® Atom™ Dual Core E3825 1.33GHz processor with 2GB DDR3L, GPS module and GPS antenna
- **Bundle Accessories**
  External Power cable (13cm)
  Driver CD