VMC 100

Main Features

- 7" WVGA TFT LCD monitor with resistor touch screen
- ARM® Cortex®-A8 Processor with 800MHz frequency
- Compact and fanless design
- On screen F1 ~ F5 function key
- Support Linux and Android system

- 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

Product Overview

VMC 100, a 7-inch all in one vehicle computer, is designed for the cost-effective solution for transportation application. Same as all VMC series, the fanless and wide temperature support are reserved in VMC 100 design. VMC 100 adopts Linux and Android system with Cortex®-A8 processor, it integrates the high resolution LCD with the brightness of 400 nits and 4-wire resistive touch sensor. VMC 100 is equipped with Bluetooth, Wi-Fi and WWAN for option, provide the connection capability for real-time communication. It provides RS-232/422/485, USB 2.0, GPIO and LAN signal to link with the peripherals. Its mounting hole is compatible with VESA75 and can be installed in the vehicle with limited space via RAM mount kits.

Specifications

General
- Cooling System: Fanless
- Enclosure: Plastic PC + ABS
- 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: 15W
- 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
- ARM® Cortex®-A8 Processor with 800MHz frequency

Memory
- On-board DDR3 512MB

Expandable Storage
- 1 x Micro SDHC Slot (Bundle with 8GB)

Expansion
- 1 x Pin Head for WLAN option
- 1 x mini-PCIe socket ((USB + UART) for WWAN option)
- OBD option and support protocols
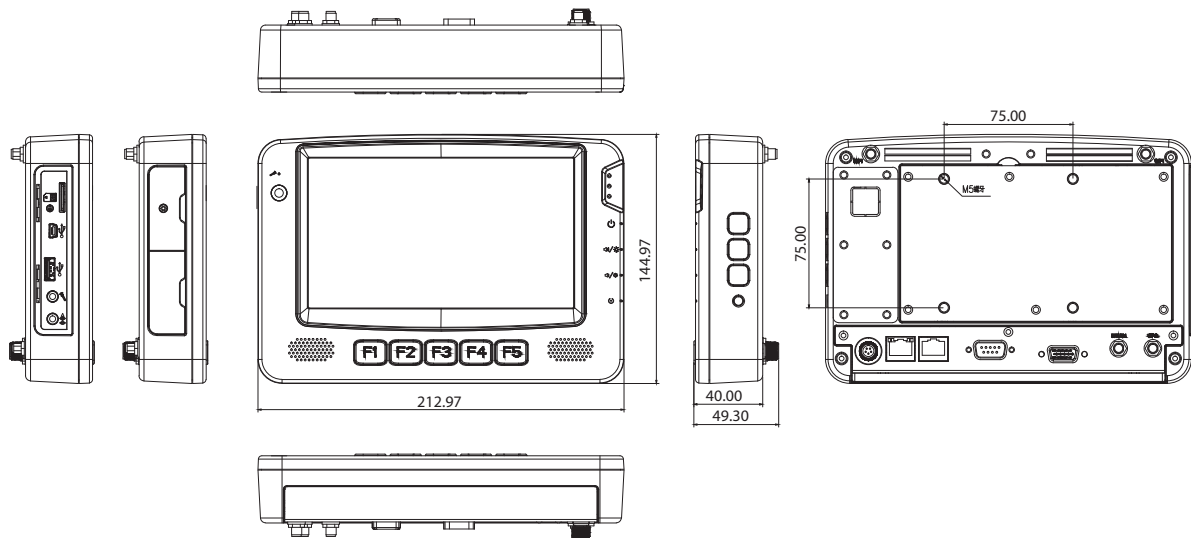 - SAE J1939
- Battery module option

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 2.0 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
  - RS-485
  - 2 x CAN Bus 2.0
- 1 x DB15 (Female) for
  - GPS dead reckoning interface (optional)
  - 3 x GPO, 3 x GPI

Communication Module
- 1 x On board GPS module
- 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

Operating System
- Linux Ubuntu (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 90% (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
- Safety
  - EN 60950-1 LVD

Ordering Information

- **VMC 100-A1U (P/N: 10VC0010000X0)**
  7" All-In-One Vehicle Computer with Touch Screen and ARM® Cortex®-A8 800MHz Processor with 512MB DDR3, GPS, Dual CAN Bus 2.0B, Linux Ubuntu OS

- **Bundle Accessories**
  Driver CD
  GPS antenna
  Multi-I/O cable
  External Power cable (13cm)