VMC 1100

Main Features

- 7" WVGA TFT LCD Monitor with resistive touch screen
- Built-in Intel Atom® Dual Core E3825 1.33GHz
- Compact and fanless design
- On screen programmable F1 ~ F5 function keys
- Support GPS/WWAN tracker function for car-safety
- RFID for ID identification
- Built-in GPS (Option: Dead Reckoning Support)

- GPS/WLAN/WWAN for wireless communication
- Dual CAN bus 2.0B and optional OBDII (SAE J1939) for car diagnostic
- Wide Range DC input from 9 ~ 36V
- Military standard for vibration and shock
- SAE J1113, ISO7637-2 and SAE J1455 conformity for power design
- CE/FCC/EMark

Product Overview

VMC 1100, a new generation 7-inch vehicle mount computer with dual core Intel Atom® processor, is designed for transportation and harbor applications requiring real-time vehicle tracking and job-dispatching. For real-time communication between driver and central control room, VMC 1100 provides the capability of wireless connection from GPS, WLAN to WWAN. To get more data from accessories, it offers RS-232, RS-485, USB 2.0, GPIO, and LAN connection. Dual CANBus 2.0B (OBDII and J1939 protocol), analog input and PWM are able to help to receive car status more quickly and correctly. Due to the unique features above, VMC 1100 is perfect to used in harbor application from container truck, forklift, container stacker....

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:
  N.W: 1.3kg
  G.W: 1.6kg

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 16GB/32GB/64GB)

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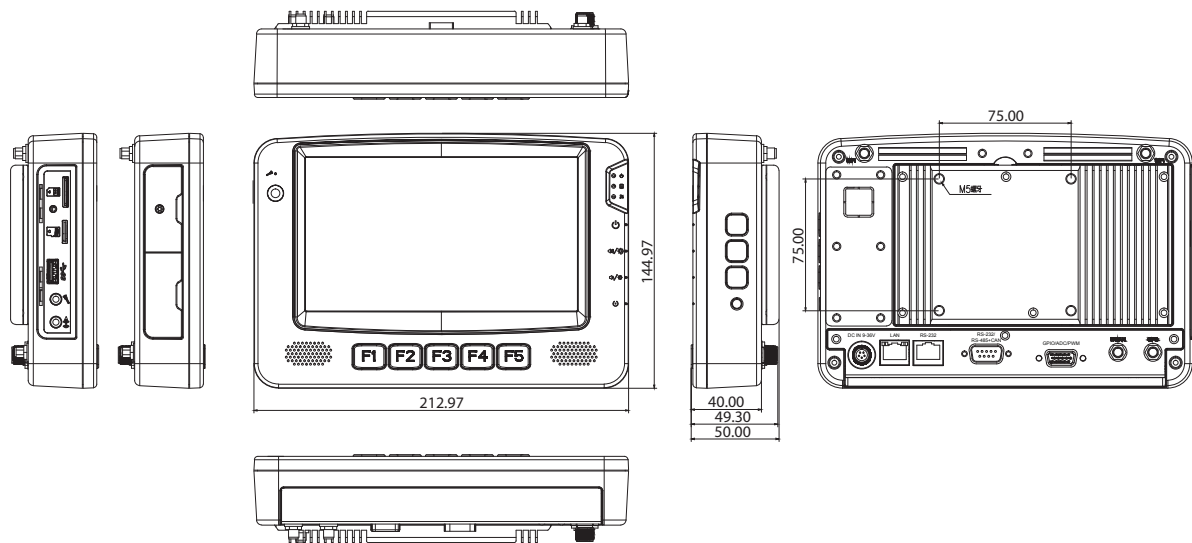
I/O Interface-Lateral
- Right side
  - 1 x Micro SD card socket
  - 1 x SIM card socket
  - 1 x USB 3.0 host type A connector
  - 1 x Mic-in, Line-out
- Left side
  - 1 x Power button
  - 1 x System reset button
  - Volume up/down or brightness up/dow

I/O Interface-Rear
- 1 x 5-Pin circular connector for power/ignition input

NEXCOM

Dimension Drawing

- 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, 2 x GPO and 2 x GPI
    Analog input requirement for voltages are measured
    Channel: 8
    Voltage range: 0~ 8V
    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 10
- 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, E-Mark
- 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