



## Main Features

- 10.4" XGA TFT LCD monitor with 5-wire resistive touch
- Aluminum die-casting and fanless design
- Built-in Intel Atom® x5-E3930 processor, 1.8GHz
- Automatic/manual brightness control
- On screen F1 ~ F10 programmable function keys
- Powered USB and COM (5V/12V, 1.5A) for accessories
- Military standard for vibration and shock
- iButton and RFID for ID identification
- Wide range DC input from 9V ~ 60V DC in
- Sunlight readable capability: 1,200nits LCD brightness
- Operating system: Windows and Linux
- CE/FCC/E-Mark

## Product Overview

VMC 3020, 10.4-inch all in one robust vehicle mount computer, is designed for the warehouses, logistic and material handling market. It implements the latest Intel Atom® x5-E3930 processor (codename Apollo Lake) and can work on Windows and Linux for different OS. markets. To work well in the special warehouse application, VMC 3020 specially designs powered I/O (up to 12V DC out) to power on printer, scanner... 1,200 nits brightness is for sunlight readable purpose.

## Specifications

### LCD Panel

- 10.4-inch TFT LCD panel with LED backlight
- 1024 x 768 pixels (XGA)
- Brightness: 1200 cd/m<sup>2</sup> (typical)
- Viewing angle: 170° (H):170°(V)
- Contrast ratio: 900:1 (typical)

### Touch Screen Sensor

- 5-wire resistant touch
- Anti-glare coating surface
- Transmission rate: 81 ± 3%

### CPU & Chipset

- Intel Atom® x5-E3930 processor dual core 1.8GHz

### Memory

- One 204-pin DDR3L 1600MHz SO-DIMM slot (default: 4GB)

### Security

- 1 x TPM 2.0 as default

### Onboard Sensor

- G Sensor (3-axis, 10-bit resolution)

### Expandable Storage

- 1 x CFast
- 1 x 2.5" SATA SSD bay

### Expansion

- 1 x Half size mini-PCIe socket (USB 2.0, PCIe 2.0)
- 1 x Full size mini-PCIe socket (USB 2.0) for LTE module with 1 x internal Mini-SIM
- 1 x M.2 2230 Key E socket (USB 2.0, PCIe 2.0, SDIO 3.0, UART) for Wi-Fi module

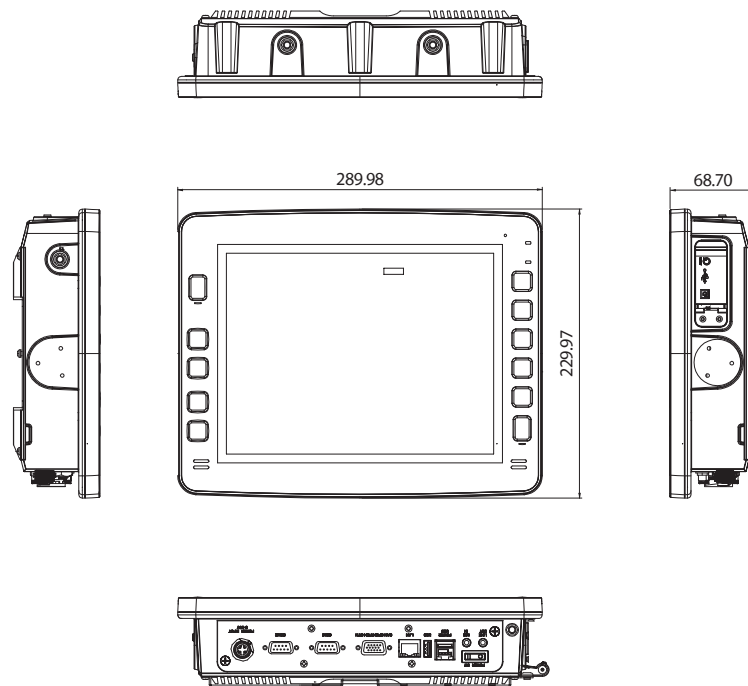
### I/O Interface-Front

- 5 x On screen display buttons
  - Power on/off
  - Volume control (+/-)
  - Brightness control (+/-)
- Light sensor
- 4 x LED indicators (power, WLAN, shift, storage)
- F1 ~ F10 programmable function keys
- 2 x Built-in 2W speakers

### I/O Interface-Lateral

- Right side
  - 1 x CFast card slot
  - System reset button
  - USB 2.0 host type A connector
- Left side
  - 1 x antenna for WWAN

## Dimension Drawing



### I/O Interface-Bottom

- ♦ 1 x Power switch (ATX mode)
- ♦ Lockable power connector (power, ignition, ground)
- ♦ 2 x RS232 (full signals, RI, OV, 5V/1.5A, 12V/1.5A)
- ♦ 1 x RJ45 for Giga LAN
- ♦ 1 x DB15
  - 1 x Isolated CAN 2.0B
  - 1 x iButton
  - 1 x RFID (12V/1A, 5V/1A, 4-pin)
  - 1 x Optional RS232 Tx/Rx (share with GPS UART)
  - 2 x GPI
    - Sink type: 5VDC TTL (default)
    - Source type: 3 ~ 28VDC
  - 2 x GPO
    - Sink type: 5VDC TTL (default), max current: 20mA
    - Source type: 3 ~ 28VDC, max current: 150mA
- ♦ 1 x Powered USB (5V/1.5A, 12V/1.5A)
- ♦ 1 x USB type A (5V/1A)
- ♦ 1 x Mic-in, 1 x Line-out
- ♦ 1 x Antenna for GPS

### I/O Interface-Top

- ♦ 2 x Antenna for Wi-Fi

### Mechanical

- ♦ Cooling system: fanless
- ♦ Enclosure: aluminum die castig
- ♦ Mounting: VESA 75/100 & desktop mounting
- ♦ Ingress protection: front panel IP65
- ♦ Dimension: 289.98mm (W) x 229.97mm (H) x 68.70mm (D)
- ♦ Weight: 3kg, 6.61lb

### Power Management

- ♦ 9V ~ 60V DC in
- ♦ Reverse protection/over voltage protection/under voltage protection
- ♦ Ignition on/off control & programmable on/off delay timing
- ♦ Wake up by SMS, RTC and ignition

### Operating System

- ♦ Windows 10, Linux

### Environment

- ♦ Operating temperatures: ambient with air -30°C to 60°C
- ♦ Storage temperatures: -30°C to 70°C
- ♦ Relative humidity: 10% to 90% (non-condensing)
- ♦ 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

### Standards/Certifications

- ♦ CE/FCC class B/E13

## Ordering Information

- ♦ **VMC 3020-2A01 (P/N: 10VC0302006X0)**  
10.4" rugged vehicle mount computer with Intel Atom® x5-E3930, touch screen and front IP65
- ♦ **(Optional) VMC 3020 battery kit (P/N: 88VC0302000X0)**  
Back-up battery for approx. 30 minutes of operation under power consumption 20W