

VMC 2030 Series



Main Features

- ♦ 8" TFT LCD with projected capacitive touchscreen
- ♦ Wide viewing angle with 1280x720 HD resolution
- ♦ 3mm thick reinforced touchscreen for added durability
- ♦ Sunlight-readable LCD panel with 1,000-nit brightness
- ♦ Glove-friendly touchscreen
- ♦ Built-in Intel Atom® x7433RE quad-core processor
- ♦ Isolated CAN FD for reliable communication
- ♦ Optional CVBS input with capture card supporting up to 4 analog cameras
- ♦ Wide range DC 9V~60V power input for flexible installation
- ♦ Fully IP65-rated waterproof enclosure for enhanced protection
- ♦ HDMI® output for secondary display support

Product Overview

The VMC 2030 is a rugged 8" vehicle mount computer built for demanding industrial environments such as warehouses, ports, logistics hubs, mining, and material handling operations. It features a projected capacitive touchscreen with 1280x720 HD resolution and a wide viewing angle, all protected by a 3mm thick reinforced screen. With a 1,000-nit sunlight-readable LCD panel, the VMC 2030 ensures clear visibility in both indoor and outdoor conditions. Powered by an Intel Atom® x7433RE quad-core processor, it supports both Windows and Linux platforms, offering flexible system integration for a wide range of applications.

Designed for versatility and durability, the VMC 2030 supports a wide range DC 9V to 60V power input, making it suitable for various vehicle types. It includes an isolated CAN FD interface for reliable communication with vehicle systems and offers optional CVBS input with an optional capture card that supports up to four analog cameras for enhanced situational awareness. An HDMI® output enables connection to a secondary display, while the fully IP65-rated enclosure ensures resistance to water, dust, and harsh environmental conditions. The VMC 2030 combines computing power, rugged design, and connectivity to optimize operational efficiency in industrial and mobile deployments.

Specifications

Panel

- ♦ LCD panel
 - 8-inch TFT LCD panel
 - 1280x720 HD resolution
 - Brightness: 1000cd/m² (typical)
 - Viewing angle: 170° (H), 170° (V)
 - Contrast ratio: 900:1 (typical)
- ♦ Touchscreen
 - Projected capacitive
 - Anti-glare coating surface
 - Glove-friendly 3mm touchscreen
 - Transmission rate: 80 ± 3%

Processor

- ♦ Intel Atom® x7433RE processor, TDP 9W

Memory

- ♦ 1 x DDR5 4800 SO-DIMM, in-band ECC, default 8GB, up to 16GB

Display Interface

- ♦ 1 x HDMI® 2.0b, up to 3840x2160@60Hz

Storage

- ♦ 1 x M.2 Key M 2242 (SATA 3.0, PCIe 3.0 x1)
- ♦ 1 x mSATA (occupies one Mini PCIe slot)

Expansion Slot

- ♦ 1 x Full-size Mini PCIe slot (USB 2.0, PCIe 3.0/SATA 3.0)
- ♦ 1 x M.2 Key E 2230 (USB 2.0, PCIe 3.0 x2), BOM optional M.2 Key E 2230 (USB 2.0, PCIe 3.0, PCIe 3.0)
- ♦ 1 x M.2 Key B 3042/3050/3052 (USB 2.0, USB 3.2 Gen 2) for an LTE/5G NR module with two external nano-SIM slots

Sensor

- ♦ 1 x Default u-blox NEO-M9N GNSS for GPS/GLONASS/QZSS/Galileo/Beidou
- ♦ Optional M9V module with dead reckoning available
- ♦ G-Sensor and gyroscope

System Capabilities

- ♦ TPM 2.0: Infineon SLB 9672XU2.0 FW15.23

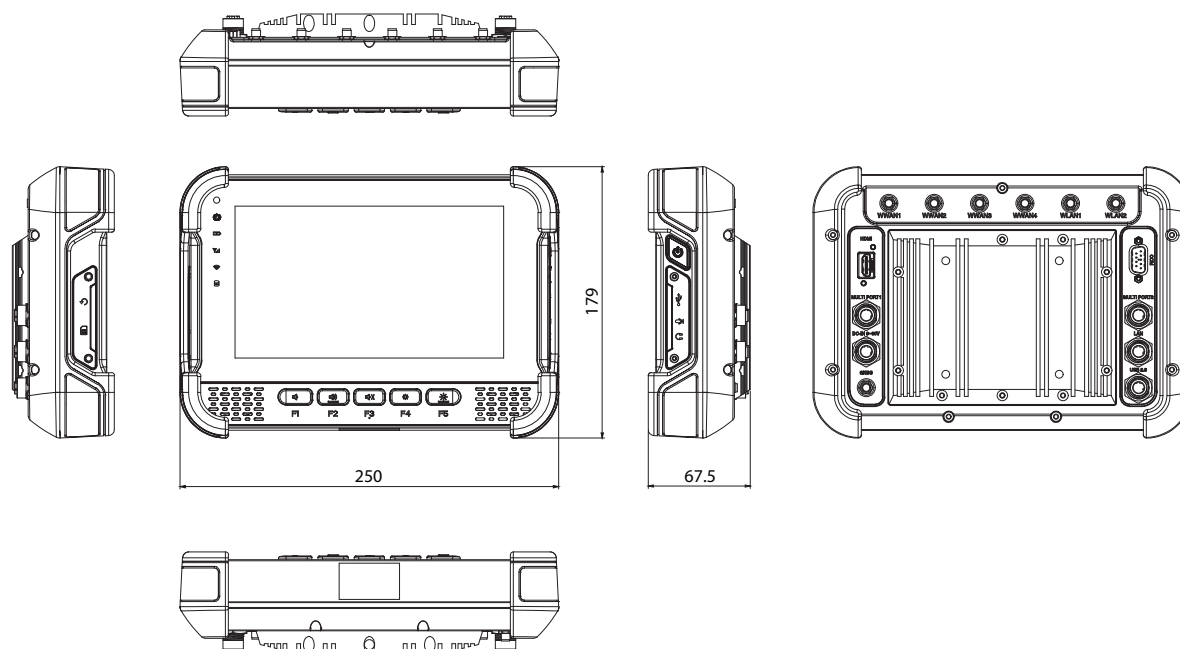
I/O Interface Front

- ♦ 5 x programmable function key (F1~F5), or for volume (+/-), brightness (+/-), and mute control
- ♦ 1 x Light sensor
- ♦ 5 x LED indicator (power, battery, WWAN, WLAN, storage)
- ♦ 2 x Built-in 2W speaker
- ♦ 1 x Built-in microphone

I/O Interface Side

- ♦ Left side
 - 1 x System reset button w/ cover
 - 2 x nano-SIM slot w/ cover

Dimension Drawing



- ♦ Right side
 - 1 x Power button
 - 1 x USB 3.2 Gen 2, Type-A w/ cover
 - 1 x Mic in, 1 x Line out w/ cover

I/O Interface Rear

- ♦ 1 x COM port, supports RS-232 full (w/ 5VDC, 12VDC)
- ♦ 1 x 5-pin M12 A-coded power connector
- ♦ 1 x 8-pin 2.5GbE M12 X-coded connector
- ♦ 1 x 8-pin M12 A-coded connector for 2 x USB 2.0
- ♦ 1 x HDMI®
- ♦ 1 x 8-pin M12 A-coded connector (MULTI PORT1)
 - 2 x GPI
 - 2 x GPO
 - 1 x Isolated CAN FD
- ♦ 1 x 12-pin M12 A-coded connector (MULTI PORT2)
 - 1 x RS-232 (Tx, Rx)
 - 1 x RS-232 (Tx, Rx)/422/485
 - PWM (speed)+direction+GND, optional 4 x composite video input/CAN-06
- ♦ 4 x SMA connector for WWAN
- ♦ 2 x RP-SMA connector for WLAN
- ♦ 1 x SMA connector for GNSS

I/O Interface Internal

- ♦ RFID Module (optional, occupies one USB 2.0)
 - 13.56MHz RFID/contactless standard protocols
 - Compatible with all major global secured baseband ISO standards including ISO 14443 Type A, MIFARE Classic cards, and smart label ISO 15693

Mechanical

- ♦ Cooling system: fanless
- ♦ Enclosure: plastic
- ♦ Mounting: VESA 75
- ♦ Ingress protection: complete IP65
- ♦ Dimensions: 250.0mm (W) x 179.0mm (H) x 67.5mm (D)
- ♦ Weight: 2.66kg

Power Management

- ♦ DC 9V~60V power input
- ♦ Reverse protection/over voltage protection/under voltage protection

- ♦ Ignition on/off control & programmable on/off delay timing
- ♦ Wake up by LAN, SMS, RTC, and ignition

Environment

- ♦ Temperature:
 - -30°C~60°C, ambient with air
 - Storage temperature: -40°C~80°C
- ♦ Relative humidity: 10%~90% (non-condensing)
- ♦ Vibration (random)
 - 2g@5Hz~500 Hz (in operation)
- ♦ Vibration
 - Operating: MIL-STD-810H, 514.8 Procedure 1, Category 4
 - Storage: MIL-STD-810H, 514.8E Procedure 1, Category 24
 - IEC 60068-2-6: Sinusoidal 5Hz~500MHz 2G
- ♦ Shock
 - Operating: MIL-STD-810H, Method 516.8, Procedure I, trucks and semi-trailers=40g
 - Crash hazard: MIL-STD-810H, Method 516.8, Procedure V, ground equipment=75g
 - IEC 60068-2-27: Operating: half sine, 20G 11ms, Non-operating: half sine, 50G 11ms

Operating System

- ♦ Windows 11
- ♦ Windows 10, 64bit
- ♦ Linux

Certifications

- ♦ CE
- ♦ FCC Class B
- ♦ E13 mark

Ordering Information

- ♦ **VMC 2030-PC1 (P/N: 10VC0203000X0)**
8" rugged vehicle mount computer with Intel Atom® x7433RE processor, projected capacitive touchscreen and complete IP65, 8GB DDR5 SO-DIMM, DC 9V~60V input