

# FM14AD-V

14" Windows Vehicle Computer with Intel® Alder Lake Processor



## KEY FEATURES

- 12th Gen. Intel® Processor Family – Alder Lake Processor
- 14" 1920 x 1080 Panel with PCAP touch screen vehicle mount terminal
- IP65 waterproof and dustproof
- Wide power input 10-60V DC with ignition
- Wide range operating temperature
- Support VESA Mount

## INTRODUCTION

Winmate FM-V Series Windows Vehicle Mounted Computer (VMC) is designed for reliable performance in demanding industrial and automotive environments. Available in sizes from 7" to 14", it offers processor options ranging from Intel® Celeron® N6211 and N3350 to the powerful 12th Gen Intel® Alder Lake processors. Built with an IP65-rated waterproof and dustproof enclosure, wide 10-60V DC power input with ignition support, and a rugged design for extreme temperatures, the FM-V Series ensures durability and efficiency. VESA mount compatibility provides easy installation, making it ideal for fleet management, logistics, and warehouse operations.

## OVERVIEW



### Vibration and shock-proof design ensure reliable performance

Winmate FM14AD-V is rugged enough to survive harsh industrial environments. Its solid enclosure enhances its durability according to the MIL-STD-810H standard and IP65 water and dust protection. The Winmate FM14AD-V is ready for your harshest environments.

### Wider Screen

The FM14AD-V features a wider PCAP touch screen offering visibility and productivity in various environments and applications.





### High-Performance CPU

The FM14AD-V is powered by the Intel Alder Lake Series processors to support the next generation of Industrial IoT. Provide better graphics performance and connectivity for integrated IoT features, real-time data management, and work efficiency.

### Reliable computing under extreme operating temperatures

Get frost and condensation-free operation in the freezer. The Winmate all-in-one vehicle mount computer is designed to seamlessly fit most warehouses, cold supply chains, and heavy-duty vehicles. It features a set of programmable keys and a glove-friendly touchscreen to simplify complex operations.



## SPECIFICATIONS

### Display

<b>Bonding</b>	Optical Bonding for Sunlight Viewability	<b>Resolution</b>	1920x1080
<b>Size</b>	14.0 inches	<b>Contrast Ratio</b>	800:1
<b>Panel Brightness</b>	700.0 nits	<b>View Angles</b>	85,85,85,85
<b>Type</b>	Projected Capacitive Multi Touch		

### System Specification

<b>Processor</b>	Intel® Core™ i5-1235U 3.30 GHz (up to 4.40 GHz)	<b>Memory</b>	8GB DDR5 SDRAM, up to 32GB
<b>Storage</b>	128GB NVMe SSD 256GB NVMe SSD (Optional)	<b>Security</b>	TPM 2.0
<b>Operating System</b>	Windows 10 IoT Enterprise LTSC (64 bit) Windows 11 IoT Enterprise LTSC (64 bit) (Optional)	<b>WLAN</b>	Support
<b>BT</b>	Support	<b>WWAN</b>	LTE/5G Sub 6 (Optional)
<b>GNSS</b>	GPS/GLONASS (Optional)	<b>Sensors</b>	G-Sensor, Light Sensor, Temp Sensor

### Camera

<b>Front Camera</b>	2MP Camera
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### Mechanical

<b>Dimension</b>	342 x 225 x 52 mm	<b>Weight</b>	2.5 kg
<b>Mounting</b>	VESA mount	<b>Cooling System</b>	Fanless Design

### IO Ports

<b>USB Port</b>	1 x USB 3.0 Type C 1 x USB 2.0 Port	<b>Serial Port</b>	2 x RS232/422/485 (Default RS232)
<b>SD Card Slot</b>	1 x Micro SD Card Slot	<b>SIM Card Slot</b>	1 x Dual-Nano SIM Card Slot
<b>Audio</b>	1 x Audio(Mic in & Line Out) either one with DIDO (Optional)	<b>LAN</b>	1 x Gigabit LAN port PSE (IEEE 802.3at 30W) (Optional)
<b>Indicator</b>	4 x LED Indicator	<b>DIDO</b>	1 x DIDO (2XDI ; 2XDO) either one with Audio (Optional)
<b>CANBUS</b>	1 x CANBus (Optional)		

### Environment

<b>Operating Humidity</b>	5% to 90% RH, Non-Condensing	<b>Operating Temperature</b>	-30°C to 60°C
<b>Storage Temperature</b>	-30°C to 60°C	<b>Shock</b>	MIL-STD-810H Method 516.8 Procedure I
<b>Vibration</b>	MIL-STD-810H Method 514.8 Procedure I	<b>IP rating</b>	IP65
<b>Impact</b>	Support EN62262 IK07 Rating	<b>ESD</b>	Compliant with EN 61000-4-2, enhanced ESD to ±8kV direct & ±12kV air

### Certification

<b>Certification</b>	CE, FCC FCC (Electromagnetic Emissions), IC (ICES-003) UL60950-1, EN60950-1, PTCRB
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### Control

<b>Button</b>	1 x Power Button, 4 x Function Button (Programmable Function Key Configured by Winset)
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### Power

<b>Battery</b>	2400mAh UPS Battery for 1 hour backup (Optional)	<b>Power Rating</b>	10V~60V with ignition control
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### Security Function

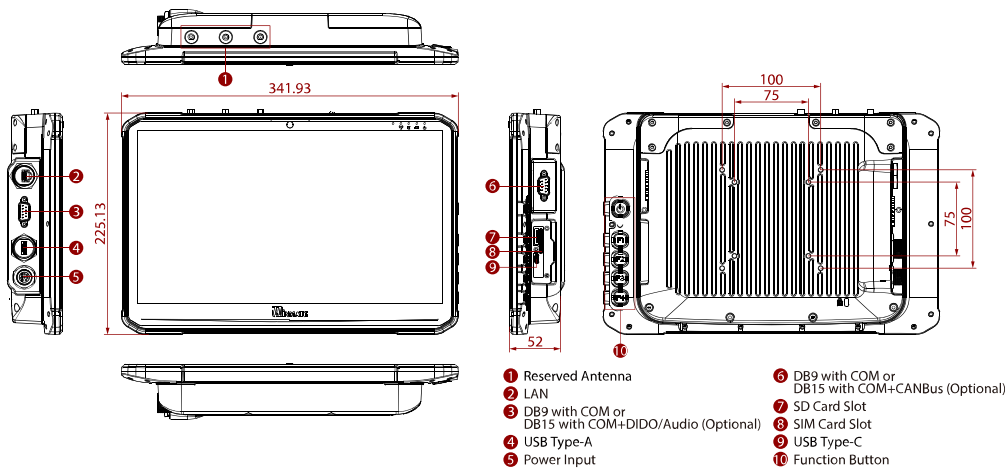
<b>SOTI MobiControl</b>	SOTI MobiControl Compliance
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### Accessory

<b>Accessory</b>	1.8M Power Cable with Fuse Kit 0.15M Power Converter Cable DC Jack Power Cable 150W Adapter with power cable Quick Start Guide	<b>Optional Accessory</b>	Stylus Kit + Screw 1.8M RS232 Cable 2M IP65 LAN Cable GPS & LTE 5M Combo Antenna (VM9C) GPS & LTE Magnetic Combo Antenna (VM10S)
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GPS Antenna  
 WWAN Antenna  
 2M Waterproof USB Type-A to A Cable  
 Cable Clamp Kit  
 COM Port + CANBus Cable  
 COM Port + DIDO Cable

**DIMENSIONS** UNIT:MM



**NOTE**

1. Total usable memory will be less dependent upon actual system configuration.
2. SOTI is available upon request.
3. Length measurements do not include protrusions. Weight varies with options.
4. Measured at dimming LCD brightness. Varies depending on the usage conditions, or when an external device is attached.
5. Accessories may vary depending on your configuration.
6. This is a simplified drawing and some components are not marked in detail.
7. The product shown in this datasheet is a standard model. For diagrams that contain customized or optional I/O, please contact the Winmate Sales Team for more information.
8. COM port can supply 5V power via the 9th pin.