

# FM12E-V

## 12.1" Vehicle Computer with Intel® Elkhart lake x6413E



### KEY FEATURES

- Intel® Elkhart lake x6413E Processor vehicle computer
- 12.1" 1024 x 768 Panel with PCAP touch screen
- IP65 waterproof and dustproof
- Wide power input 10-60V DC with ignition
- Wide range operating temperature
- Support VESA Mount



### SPECIFICATIONS

Display			
Type	Projected Capacitive Multi Touch	Touch Mode	Support Hand, Stylus, Glove Mode
Resolution	1024x768	Size	12.1 inches
Contrast Ratio	1000:1	Panel Brightness	400 nits 800 nits(Optional)
View Angles	89,89,89,89		
System Specification			
Processor	Intel Atom x6413E 1.5GHz (up to 3GHz) Intel Atom x6425E 2GHz (up to 3GHz) (Optional)	Memory	1 x SO-DIMM, DDR4 3200 MHz, 4GB 8GB (Optional)
Storage	1 x M.2 2242 SSD 128GB 256GB (Optional)	Security	TPM 2.0
Operating System	Windows 10 IoT Enterprise LTSC (64 bit) Windows 11 IoT Enterprise LTSC (64 bit) (Optional)	WLAN	Support
BT	Support	WWAN	4G/LTE (Optional)
GNSS	GPS/GLONASS (Optional)	Sensors	G-Sensor, Light Sensor ,Temp Sensor
Camera			
Front Camera	2MP Camera		
Environment			
Operating Humidity	5% to 90% RH, Non-Condensing	Operating Temperature	-30°C to 60°C
Storage Temperature	-30°C to 60°C	Shock	MIL-STD-810H Method 516.8 Procedure I
Vibration	MIL-STD-810H Method 514.8 Procedure I	IP rating	IP65
Impact	Support EN62262 IK07 Rating	ESD	Compliant with EN 61000-4-2, enhanced ESD to ±12kV direct & ±15kV air
Certification			
Certification	CE, FCC FCC (Electromagnetic Emissions), IC (ICES-003) UL60950-1, EN60950-1, PTCRB		
Control			
Button	1 x Power Button, 5 x Function Button (Programmable Function Key Configured by Winset)		
IO Ports			

<b>USB Port</b>	1 x USB Type-C 1 x USB 2.0 Type-A	<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 (WLAN, UPS battery, HDD, Heater)	<b>DIDO</b>	1 x DIDO (2XDI ; 2XDO) either one with Audio (Optional)
<b>CANBUS</b>	1 x CANBus (Optional)		

### Mechanical

<b>Dimension</b>	306.6 x 225 x 56.6 mm	<b>Weight</b>	2.4kg
<b>Mounting</b>	VESA mount	<b>Cooling System</b>	Fanless Design

### Security Function

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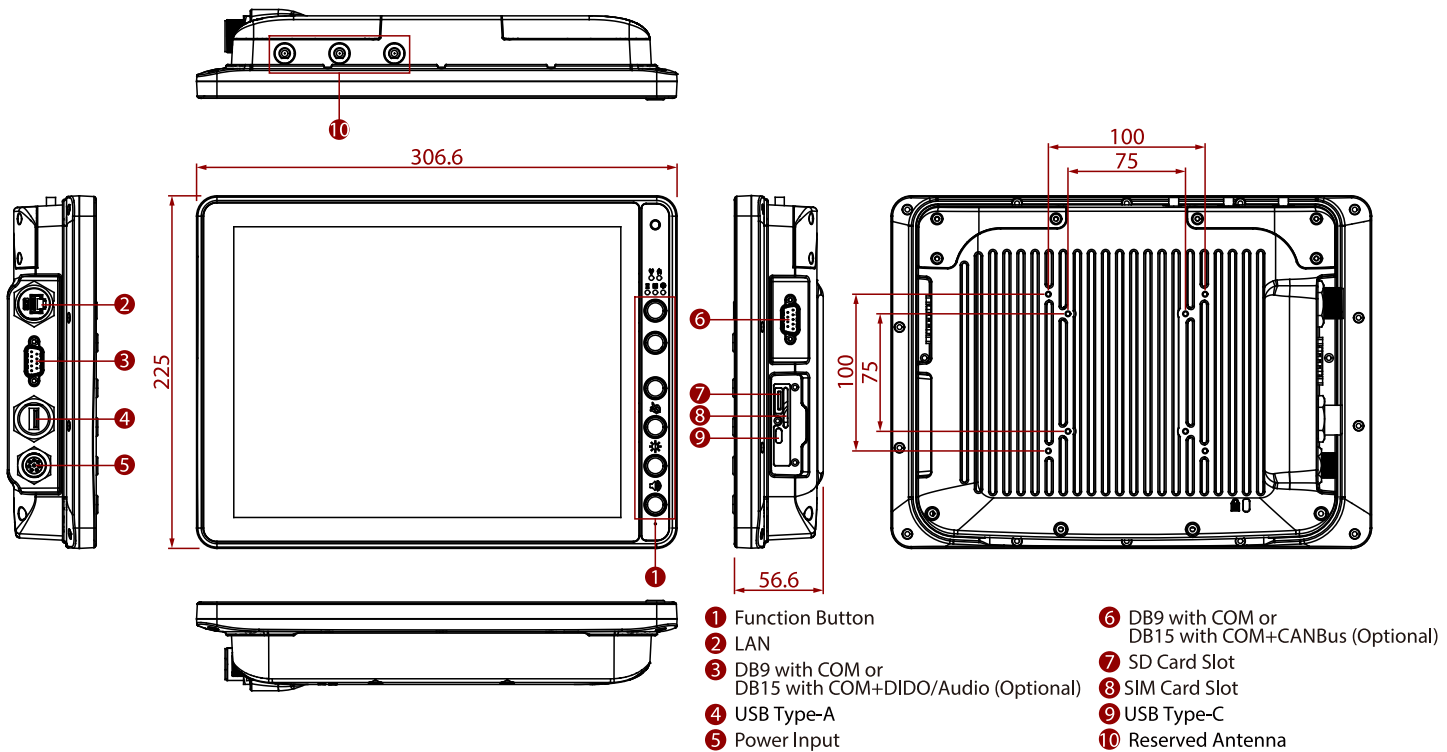
### Accessory

<b>Accessory</b>	1.8M Power Cable with Fuse Kit 0.15M Power Converter Cable DC Jack Power Cable 84W 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) GPS Antenna WWAN Antenna 2M Waterproof USB Type-A to A Cable Cable Clamp Kit COM Port + CANBus Cable COM Port + DIDO Cable
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### Power

<b>Battery</b>	400mAh UPS Battery for 20 minutes backup (Optional)	<b>Power Rating</b>	10V~60V with ignition control
<b>Consumption</b>	45W (Typical)		

### 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.
9. The UPS battery is only expected to use for backup under low system loading and without I/O function.