

# FM12E-VML

## 12.1" Intel Atom® x6413E Vehicle Mounted Computer Defence Panel PC



### KEY FEATURES

- Intel® Elkhart lake x6413E Processor
- 12.1" 1024 x 768 Panel with PCAP touch screen in vehicle computer
- IP65 waterproof and dustproof
- Wide power input 10-60V DC with ignition
- Wide range operating temperature
- Support VESA Mount
- IO ports with Defence grade 38999 connectors
- Compliant with MIL-STD 810G/H and MIL-STD 461E/F/G

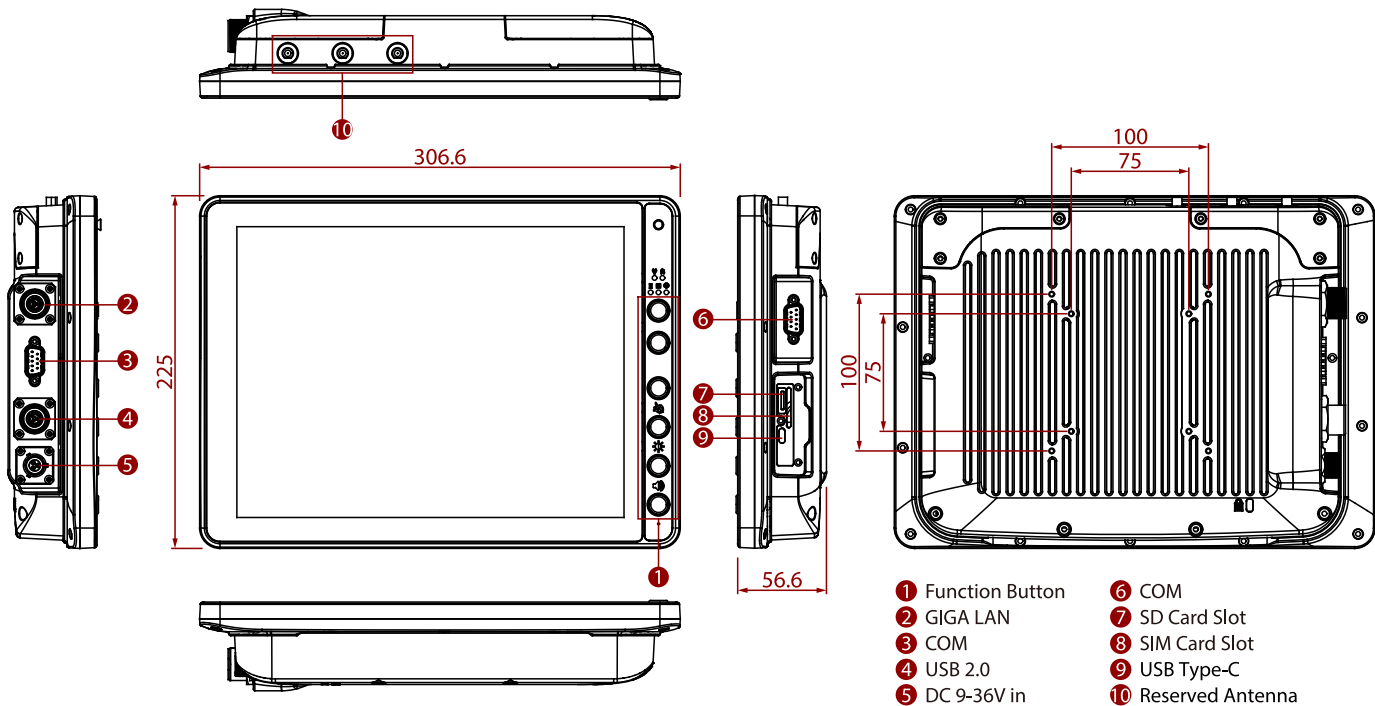


### SPECIFICATIONS

| Display              |                                                                                                                                            |                       |                                                                       |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------|
| Resolution           | 1024x768                                                                                                                                   | Size                  | 12.1 inches                                                           |
| Contrast Ratio       | 1000:1                                                                                                                                     | Panel Brightness      | 400 nits<br>800 nits(Optional)                                        |
| View Angles          | 89,89,89,89                                                                                                                                | Type                  | Projected Capacitive Multi Touch                                      |
| System Specification |                                                                                                                                            |                       |                                                                       |
| Processor            | Intel Atom x6413E 1.5GHz (up to 3GHz)<br>Intel Atom x6425E 2GHz (up to 3GHz) (Optional)                                                    | Memory                | 1 x SO-DIMM, DDR4 3200 MHz, 4GB<br>8GB (Optional)                     |
| Storage              | 1 x M.2 2242 SSD 128GB<br>256GB (Optional)                                                                                                 | Security              | TPM 2.0                                                               |
| Operating System     | Windows 10 IoT Enterprise (64 bit)                                                                                                         | 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<br>FCC (Electromagnetic Emissions), IC (ICES-003)<br>UL60950-1, EN60950-1, PTCRB                                                   |                       |                                                                       |
| Compliance           |                                                                                                                                            |                       |                                                                       |
| MIL-STD 461E/F/G     | RE101 / RE102<br>CE101 / CE102<br>with EMI Glass / Touch(Optional)<br>RS101 / RS 103<br>CS101 / CS 106 / CS 109 / CS 114 / CS 115 / CS 116 |                       |                                                                       |

| Control           |                                                                                                                                                                                        |                    |                                                                                                                                                              |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Button            | 1 x Power Button, 5 x Function Button<br>(Programmable Function Key Configured by Winset)                                                                                              |                    |                                                                                                                                                              |
| IO Ports          |                                                                                                                                                                                        |                    |                                                                                                                                                              |
| USB Port          | 1 x USB Type-C<br>1 x USB 2.0 Type-A (MIL-DTL-38999/3 connector)                                                                                                                       | Serial Port        | 2 x RS232/422/485 (Default RS232)                                                                                                                            |
| SD Card Slot      | 1 x Micro SD Card Slot                                                                                                                                                                 | SIM Card Slot      | 1 x Dual-Nano SIM Card Slot                                                                                                                                  |
| LAN               | 1 x Gigabit LAN port (MIL-DTL-38999/1 connector)                                                                                                                                       | Indicator          | 4 x LED Indicator<br>(WLAN, UPS battery, HDD, Heater)                                                                                                        |
| Mechanical        |                                                                                                                                                                                        |                    |                                                                                                                                                              |
| Dimension         | 306.6 x 225 x 56.6 mm                                                                                                                                                                  | Weight             | 2.4kg                                                                                                                                                        |
| Mounting          | VESA Mount                                                                                                                                                                             | Cooling System     | Fanless Design                                                                                                                                               |
| Security Function |                                                                                                                                                                                        |                    |                                                                                                                                                              |
| SOTI MobiControl  | SOTI MobiControl Compliance                                                                                                                                                            |                    |                                                                                                                                                              |
| Accessory         |                                                                                                                                                                                        |                    |                                                                                                                                                              |
| Accessory         | 1 x Quick Start Guide<br>1 x Power Cable (MIL-DTL-38999/1)<br>1 x USB Cable (MIL-DTL-38999/3)<br>1 x LAN Cable (MIL-DTL-38999/1)<br>1 x 84W Power Adapter<br>1 x Power converter Cable | Optional Accessory | 1.8M RS232 Cable<br>GPS & LTE 2M Combo Antenna(VM240)<br>GPS & LTE 5M Combo Antenna (VM9C)<br>GPS & LTE Combo Antenna (VM10S)<br>WWAN Antenna<br>GPS Antenna |
| Power             |                                                                                                                                                                                        |                    |                                                                                                                                                              |
| Battery           | 400mAh UPS Battery for 20 minutes backup<br>(Optional)                                                                                                                                 | Power Rating       | 10V~60V with ignition control (MIL-DTL-38999/1 connector)                                                                                                    |

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.