FM14MG-V

14" Android Vehicle Computers with A78 + A55 CPU

CE
FC
IP65
COMPLIANT MIL-STD 810H

KEY FEATURES

- ARM 2 x A78 2.0GHz + 4 x A55 2.0GHz CPU
- 14" 1920 x 1080 Panel with PCAP touchscreen
- IP65 waterproof and dustproof
- Wide power input 10-60V DC with ignition
- Wide range operating temperature
- Support VESA Mount
- Replaceable front and rear modules for convenience and affordability

INTRODUCTION

Winmate FM-V Series Android Vehicle Mounted Computer (VMC) delivers robust performance and versatility for industrial and automotive applications. Available in sizes from 7" to 14", it features powerful processor options, including ARM A78 and A55 cores, ARM A53 Quad Core, and Qualcomm® Snapdragon™ 660. Designed with IP65-rated waterproof and dustproof protection, wide 10-60V DC power input with ignition, and reliable operation in extreme temperatures, the FM-V Series ensures durability and efficiency. With VESA mount support, it is perfect for fleet management, warehouse operations, and forklift-mounted applications.

SPECIFICATIONS

Display

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

System Specification

Processor	ARM Genio 510 2 x A78 2.0GHz + 4 x A55 2.0GHz	Memory	4GB LPDDR4
Storage	Onboard 64 GB	Operating System	Android 13 Linux Yocto 5.10.104 with QT 5.15 (Optional) Linux Ubuntu 22.04 (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

Mechanical

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

IO Ports

USB Port	1 x USB 2.0 Type C (OTG)	Serial Port	2 x RS232/422/485 (Default RS232)

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	1 x USB 2.0 Port		
SD Card Slot	1 x Micro SD Card Slot	**SIM Card Slot**	1 x Dual-Nano SIM Card Slot
Audio	1 x Audio(Mic in & Line Out) either one with DIDO (Optional)	**LAN**	1 x Gigabit LAN port PSE (IEEE 802.3at 30W) (Optional)
Indicator	3 x LED Indicator	**DIDO**	1 x DIDO (2XDI ; 2XDO) either one with Audio (Optional)
CANBUS	1 x CANBus (Optional)		

Environment

Operating Humidity	5% to 95% 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 ±8kV Direct & ±15kV Air

Certification

Certification	CE, FCC FCC (Electromagnetic Emissions), IC (ICES-003) UL60950-1, EN60950-1, PTCRB

Control

Button	1 x Power Button, 4 x Function Button (Programmable Function Key Configured by Winset)

Power

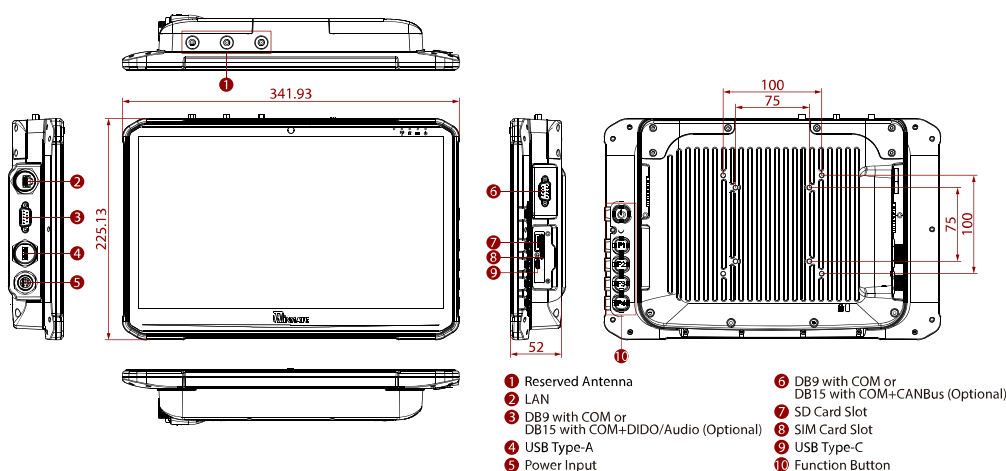|			
Battery	400mAh UPS Battery for 20 minutes backup (Optional)	**Power Rating**	10V~60V with ignition control
Consumption	35W (Typical)		

Security Function

SOTI MobiControl	SOTI MobiControl Compliance

Accessory

Accessory	1.8M Power Cable with Fuse Kit 0.15M Power Converter Cable DC Jack Power Cable 84W Adapter with power cable Quick Start Guide	**Optional Accessory**	5M Power Cable with Fuse KitStylus 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

DIMENSIONS UNIT:MM

341.93

225.13

52

100

75

75

100

① Reserved Antenna
② LAN
③ DB9 with COM or
   DB15 with COM+DIDO/Audio (Optional)
④ USB Type-A
⑤ Power Input

⑥ DB9 with COM or
   DB15 with COM+CANBus (Optional)
⑦ SD Card Slot
⑧ SIM Card Slot
⑨ USB Type-C
⑩ Function Button

NOTE

1. Total usable memory will be less dependent upon actual system configuration.
2. DIDO and audio are mutually exclusive.
3. The heater is a customized feature available by request.
4. SOTI is available upon request.
5. Length measurements do not include protrusions. Weight varies with options.
6. Measured at dimming LCD brightness. Varies depending on the usage conditions, or when an external device is attached.
7. Accessories may vary depending on your configuration.
8. 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.
9. This is a simplified drawing and some components are not marked in detail.
10. The UPS battery is only expected to use for backup under low system loading and without I/O function.
11. COM port can supply 5V power via the 9th pin.

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