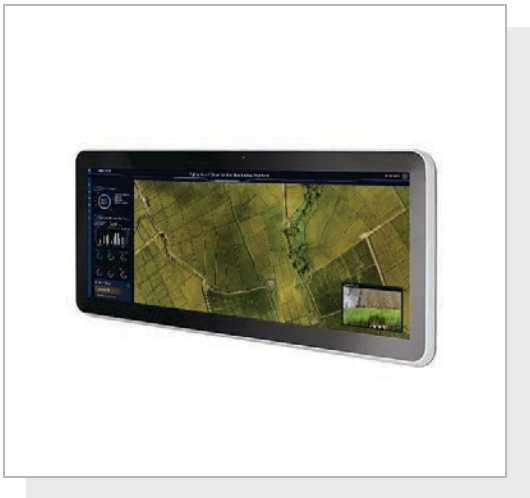# W12MG3S-GSB1

12.3" ARM A78+A55 G-WIN GS-Series Full IP65 PCAP Panel PC

KEY FEATURES

- 12.3" 1920 x 720 panel with projected capacitive multitouch screen
- ARM 2 x A78 2.2GHz + 6 x A55 2.0GHz
- M12 waterproof connectors , IP65 waterproof and dustproof
- Shock and vibration resistance according to MIL-STD-810H
- Support Android 13 operating system
- Wide power input 10-60V DC with ignition

OVERVIEW

Dust and Water Protection

Winmate G-WIN GS series panel PCs are designed with protection against dust and water splash according to IP65 standards. Making the off-highway automotive HMIs able to meet the need for advanced computing power in road-moving vehicles.

Fit for off-highway vehicle applications

Winmate automotive HMI solutions are built with high-performance computing technology in a compact body. It is suitable to be installed in a space-limited driving control room for off-highway vehicles used in agriculture, construction, material handling equipment, etc. The 12.3-inch HMIs can be VESA mount as well as integrated into the vehicle dashboard. Due to its compact measures, machine operators benefit from a less restricted view outside their cabins, easily integrated into ergonomic workplaces.

Comprehensive Waterproof I/O Ports

The automotive HMIs are designed for seamless integration with Electronic Control Units (ECU) for current and future-proof vehicle architectures CAN, Ethernet, RS232, DIDO, and USB interfaces are provided in the M12 connectors, which are waterproof for varying industrial environments.

Engineered for Harsh Environments

Suitable for offering touch control and display functions for all-terrain vehicles, EV trucks, forklifts, AGVs in smart warehouses, or dispatching consoles in cranes, mining cars, high-speed railways trains, and so on. The GWIN GS product series is engineered for harsh environments to withstand extreme temperatures and vibrations compliant with MIL-STD 810H.
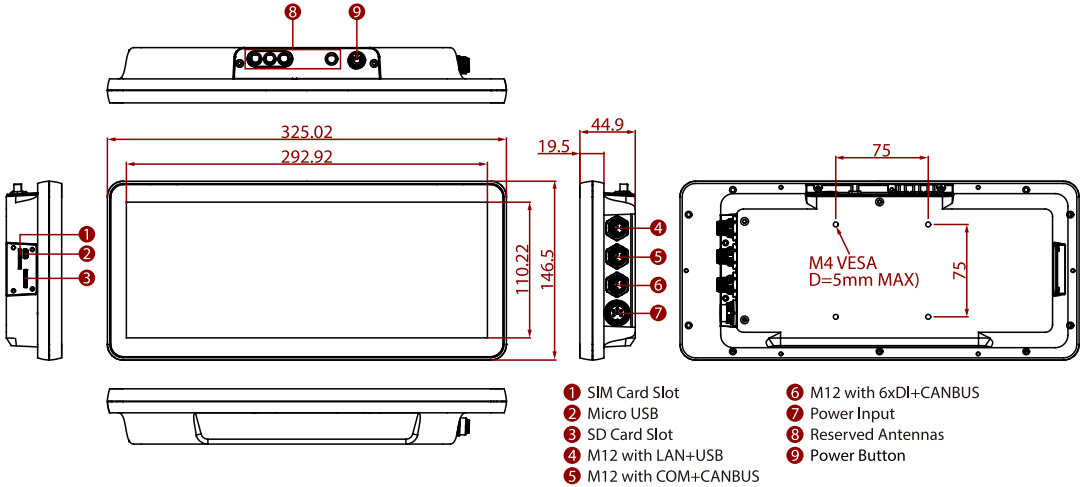
The HMI panels are for high brilliance and outdoor uses. The integrated projective capacitive touchscreen is multi-touch capable and can be operated with fingers, wet fingers, and gloves.

SPECIFICATIONS

Display

Touch / Glass	Projected Capacitive Multi Touch Screen	**Resolution**	1920x720
Size	12.3 inches	**Contrast Ratio**	1000:1
Panel Brightness	1000.0 nits	**View Angles**	88,88,88,88
Active Area	292.92×110.22 mm		

System Specification

Processor	ARM 2 x A78 2.0GHz + 4 x A55 2.0GHz	**Memory**	4GB LPDDR4
Storage	Onboard 32 GB	**Operating System**	Android 13 Linux Yocto 5.10.104 with QT 5.15 (Optional) Linux Ubuntu 22.04 (Optional)
WLAN	Support (Optional)	**BT**	Support (Optional)

WWAN	4G/LTE (Optional)	GPS	GPS/GLONASS (Optional)

Mechanical

Dimension	325.02 x 146.5 x 45 mm	**Mounting**	VESA mount
Cooling System	Fanless Design		

IO Ports

USB Port	1 x USB 2.0 (M12 type) 1 x USB Type-C (OTG)	**Serial Port**	1 x RS232/422/485 (Default RS232) (Optional)
SD Card Slot	1 x Micro SD Card Slot	**SIM Card Slot**	1 x SIM card slot (Optional)
LAN	1 x LAN 10/100/1000 Mbps (M12 type)	**DIDO**	6 x Digital Input (M12 type) (Optional)
CANBUS	2 x CANBus (M12 type) (Optional)		

Environment

Operating Humidity	5% to 95% RH	**Operating Temperature**	-20°C to 60°C
Storage Temperature	-30°C to 70°C	**Shock**	MIL-STD-810H Method 516.8 Procedure I
Vibration	MIL-STD-810H Method 514.8 Procedure I	**IP rating**	IP65

Certification

Certification	CE, FCC

Control

Button	1 x Power Button

Power

Power Rating	10V~60V with ignition control	**Adapter**	12V 50W

Accessory

Accessory	Quick Start Guide M12 Power Cable M12 USB/ LAN Cable	**Optional Accessory**	WLAN Antenna x 2 (Optional) WWAN Antenna x 2 (Optional) GPS Antenna, 3m (Optional) M12 COM Port/CANBus Cable (Optional) M12 Digital Input/CANBus Cable (Optional)

DIMENSIONS   UNIT:MM

❶ SIM Card Slot
❷ Micro USB
❸ SD Card Slot
❹ M12 with LAN+USB
❺ M12 with COM+CANBUS
❻ M12 with 6xDI+CANBUS
❼ Power Input
❽ Reserved Antennas
❾ Power Button

NOTE

1. This is a simplified drawing and some components are not marked in detail.
2. Please contact our sales representative if you need further product information.
3. All specifications are subject to change without prior notice.
4. 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.

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