G500G7
5.5" ARM A78 + A55 Rugged Robotic Controller

CE

FC

KEY FEATURES

- 1920 x 1080 TFT LCD Panel with direct bonding
- Genio 510 2 x A78 2.0GHz + 4 x A55 2.0GHz
- All-weather, dust, and water-resistant design (IP65). MIL-grade drop, Shock and vibration
- Compact and ergonomic design
- Supports WIFI/BT

INTRODUCTION

Winmate's Rugged Handheld Robotic Controller Series is a versatile and durable solution tailored for robotics, defense, public safety, and industrial automation. Available in sizes from 5.5" to 10.1", these controllers support Windows, Android, and Linux, providing flexibility for various applications. Featuring IP65-rated water and dust resistance, along with MIL-grade shock and vibration protection, they are built for all-weather reliability. With PCAP touchscreens, Intel or ARM processors, Wi-Fi, Bluetooth, and optional 4G connectivity, these robotic controllers deliver robust performance in demanding environments.
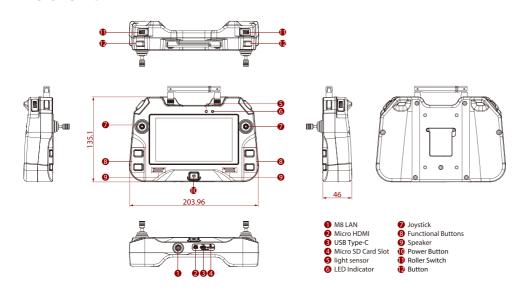
SPECIFICATIONS

Display

Bonding	Optical Bonding for Sunlight Viewability	Resolution	1920x1080
Size	5.5 inches	Contrast Ratio	1000:1
Panel Brightness	1000.0 nits	View Angles	80,80,80,80
Type	Projected Capacitive Multi Touch	Viewability	Anti-Glare touch treatment
Touch Mode	Support Hand / Gloves and Rain Mode		

System Specification

Processor	Genio 510 2 x A78 2.2GHz + 4 x A55 2.0GHz	Memory	4GB
Storage	64GB eMMC	Operating System	Android 13.0
WLAN	Support	BT	Support

Mechanical

Dimension	205.34 x 135.1 x 46 mm	Cooling System	Fan Design

IO Ports

USB Port	1 x USB 3.0 (Type C)	SD Card Slot	1 x Micro SD Card Slot (Max to 2TB)
Video	1 x micro HDMI output	Audio	2x Speaker
LAN	1 x M8 LAN Connector (10/100 Mbps , Max to 250 Mbps)		

Environment

Operating Humidity	10% to 90% RH, non-condensing	Operating Temperature	-20°C to 60°C (AC mode), -10°C to 50°C (Battery mode)
Storage Temperature	-30°C to 70°C (-22°F to 158°F)	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	2 x joystick 2 x Roller switch 6 x buttons

Power

Battery	7.4V, typ. 2950mAh LiIon Rechargeable Internal Battery (2S1P)	Power Rating	19V DC
Adapter	100-240V, 50-60Hz / 19V DC		

Accessory

Accessory	1 x Adapter 19V/65W 1 x M8 LAN external cable(2M) 1 x Power Cord	Optional Accessory	shoulder strap(Optional)

DIMENSIONS UNIT:MM

135.1

203.96

46

- ❶ M8 LAN
- ❷ Micro HDMI
- ❸ USB Type-C
- ❹ Micro SD Card Slot
- ❺ light sensor
- ❻ LED Indicator
- ❼ Joystick
- ❽ Functional Buttons
- ❾ Speaker
- ❿ Power Button
- ⓫ Roller Switch
- ⓬ 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.