

G500G7

5.5" ARM A78 + A55 Rugged Robotic Controller



CE

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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.

OVERVIEW



Efficient and Reliable Performance

Powered by an ARM-based processor, the Winmate G500G7 Handheld Robotic Controller offers efficient and reliable performance for industrial and robotic tasks. Running on Linux and Android operating systems, it ensures smooth multitasking and compatibility with diverse applications, providing flexibility for various operational needs.

Compact and Durable Design for Any Environment

The Winmate G500G7 Handheld Robotic Controller combines portability and durability in a compact 5.5" form factor. Featuring a 1080(RGB) x 1920 TFT LCD panel with direct bonding, it ensures sharp visuals and high responsiveness in a lightweight, ergonomic design. Built to withstand harsh environments, the G500G7 meets IP65 standards for dust and water resistance and adheres to military-grade certifications for drop, shock, and vibration, delivering reliable performance in demanding industrial applications.





Seamless Wireless Connectivity

The Winmate G500G7 Handheld Robotic Controller supports WiFi and Bluetooth connectivity, enabling reliable communication and data transfer across industrial networks. These wireless options ensure smooth integration with robotic systems and real-time access to critical information, making it an essential tool for dynamic environments requiring uninterrupted connectivity.

Tailored Configurations for Versatile Applications

Wimate offers a fully customizable robotic controller solution tailored to user-specific needs. The Winmate G500G7 Handheld Robotic Controller supports various wireless modules and features a modular design with configurable joysticks, switches, and buttons. This flexibility allows users to adapt the device to different robotic systems and operational requirements, making it a versatile tool for modern industrial automation.



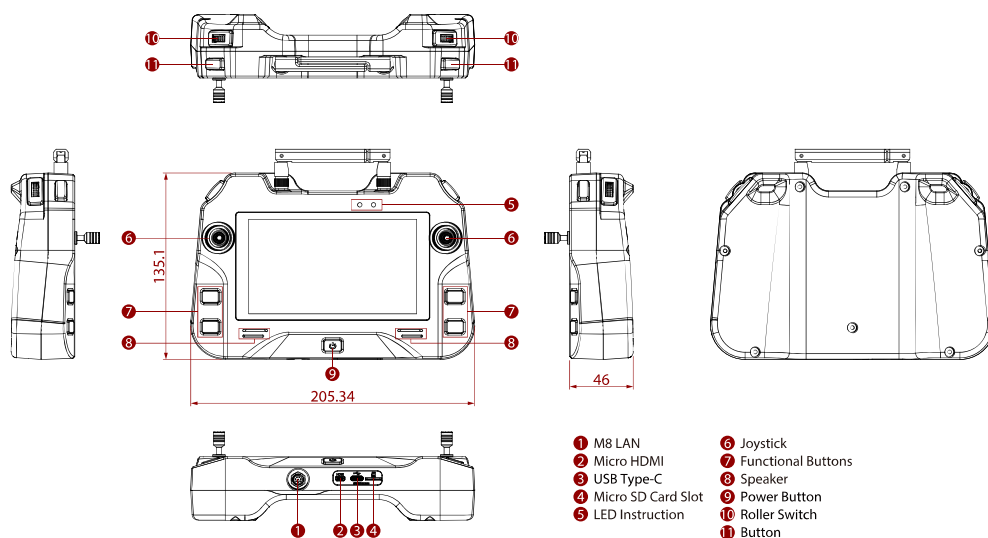
SPECIFICATIONS

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 Lilon 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

NOTE

1.This is a simplified drawing and some



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| 1 M8 LAN | 6 Joystick |
| 2 Micro HDMI | 7 Functional Buttons |
| 3 USB Type-C | 8 Speaker |
| 4 Micro SD Card Slot | 9 Power Button |
| 5 LED Instruction | 10 Roller Switch |
| | 11 Button |

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.