G101G7

10.1" ARM A78 + A55 Rugged Robotic Controller

CE

FC

KEY FEATURES

- 10.1" 1920x1200 LED Panel with PCAP Touch
- Android 13.0/Linux Ubuntu
- 4G RAM + 64G eMMC
- ARM Genio 510 2 x A78 2.0GHz + 4 x A55 2.0GHz
- Supports WIFI, BT and optional 4G
- All-weather, dust, and water-resistant design (IP65). MIL-grade drop, Shock and vibration

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

Built for Extreme Conditions

As part of Winmate's robust robotics controller lineup, the G101G7 is designed to withstand harsh conditions. It complies with US defense standard MIL-STD 810H and is IP65-rated, making it perfect for remote vehicle control in demanding environments.

Securing the Device from Unauthorized Access

In addition to the embedded TPM IC in the Winmate rugged robotics controller series, the G101G7 controller offers optional OPAL SSD to safeguard sensitive data from unauthorized access. These security features are integrated into the device, ensuring it remains lightweight, compact, and user-friendly without compromising on security.

Reliable Power for Extended Use

Winmate's G101G7 rugged portable controller features a dual battery system that supports all-day operation. This ensures continuous power, allowing pilots to focus on their aerial missions without interruption.

CUSTOMIZABLE OPTIONS

Tailored for Your Needs

At Winmate, we work closely with our customers to deliver rugged solutions tailored to industry demands and workforce needs. Our robotics controller solutions offer configurable wireless modules, joysticks, switches, and buttons, all in a modular design.

Advanced Wireless Communication

The robotics controller supports optional WIFI, bluetooth, and 4G/5G connectivity, making it an essential tool for UAV enthusiasts. Its versatile connectivity options allow users to access live video feeds, control their robotics remotely, and stay connected to the internet while flying.

SPECIFICATIONS

Display

Resolution	1920x1200	Size	10.1 inches
Contrast Ratio	800:1	Panel Brightness	800.0 nits
View Angles	85,85,85,85	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	Security	Trusted Platform Module (TPM) 2.0
Operating System	Android 13.0 Linux Ubuntu	WLAN	Support
BT	Support	WWAN	4G (Optional)
GNSS	GPS/GLONASS	Sensors	Light Sensor

Camera

Front Camera	2MP Front Camera

Mechanical

Dimension	369.35 x 221.5 x 67.3 mm	Weight	2.4kg
Cooling System	Fan Design		

IO Ports

USB Port	1 x USB 2.0	SD Card Slot	1 x Micro SD Card Slot (Max to 2TB)
Video	2 x micro HDMI output	Audio	1x 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
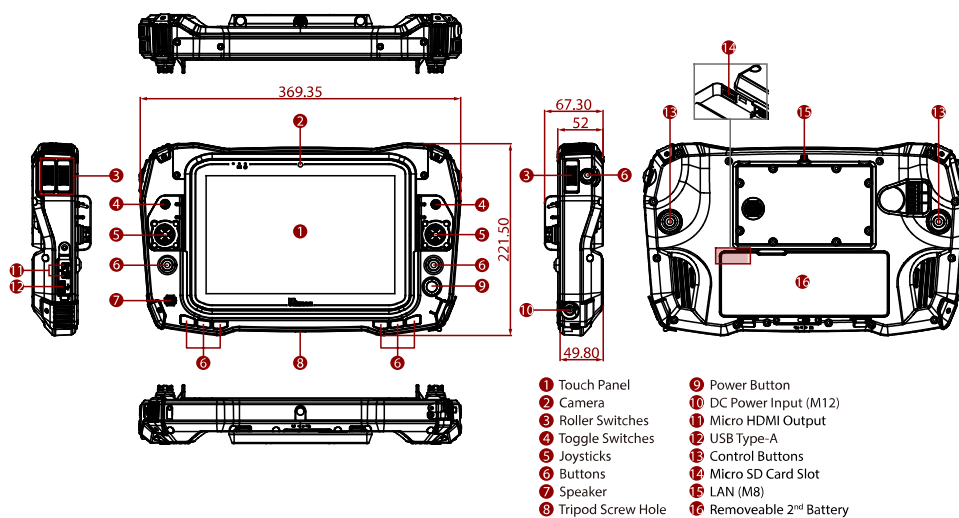
Button	Left Side: 1x joystick 2x roller switch 1x 2 band toggle switch 4x button (front side) 1x control button (rear side) Right Side: 1x joystick 1x roller switch 5x button (front side) 1x power button 1x 2 band toggle switch 1x control button (rear side)

Power

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Battery	11.4V, typ. 3500 mAh LiIon Rechargeable Internal Battery (3S1P) 11.4V, typ. 3500 mAh LiIon Rechargeable Secondary Battery (3S1P)	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	Battery Charger (Optional) Stylus (Optional) shoulder strap(Optional)

DIMENSIONS   UNIT:MM

369.35
221.50
67.30
52
49.80

❶ Touch Panel	❾ Power Button
❷ Camera	❿ DC Power Input (M12)
❸ Roller Switches	⓫ Micro HDMI Output
❹ Toggle Switches	⓬ USB Type-A
❺ Joysticks	⓭ Control Buttons
❻ Buttons	⓮ Micro SD Card Slot
❼ Speaker	⓯ LAN (M8)
❽ Tripod Screw Hole	⓰ Removeable 2nd Battery

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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