G101TG
10.1" Intel® Tiger Lake Rugged Robotic Controller

CE
FC

KEY FEATURES

- Low Latency video SW decoder for real-time high-resolution video viewing
- All-weather, dust, and water-resistant design (IP65). MIL-grade drop, Shock and vibration
- Supports WIFI, BT and optional 4G/5G
- Embedded TPM IC and Optional OPAL SSD
- Providing improved wireless connectivity and stability robotics controller
- With a removable second battery and a battery life of over 10 hours is a must-have tool for serious UAV pilots

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	Type	Projected Capacitive Multi Touch
Viewability	Anti-Glare touch treatment	Touch Mode	Support Hand/Rain, Stylus, Glove Mode
Resolution	1920x1200	Size	10.1 inches
Contrast Ratio	800:1	Panel Brightness	800 nits 1750 nits(Optional)
View Angles	85,85,85,85		

System Specification

Processor	Intel Core i5-1135G7 2.4GHz (up to 4.2GHz) Intel Core i3/i7 Processor (Optional)	Memory	1 x 8GB SDRAM, up to 32GB SDRAM (Optional)
Storage	1 x M.2 M-Key 2280 NVMe 128GB SSD, up to 2TB SSD (Optional)	Security	Trusted Platform Module (TPM) 2.0
Operating System	Windows 10 IoT Enterprise LTSC (64 bit) Windows 11 IoT Enterprise SAC (64 bit) (Optional) Linux Ubuntu 22.04 (Optional)	WLAN	Support
BT	Support	WWAN	4G LTE (Optional) 5G (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

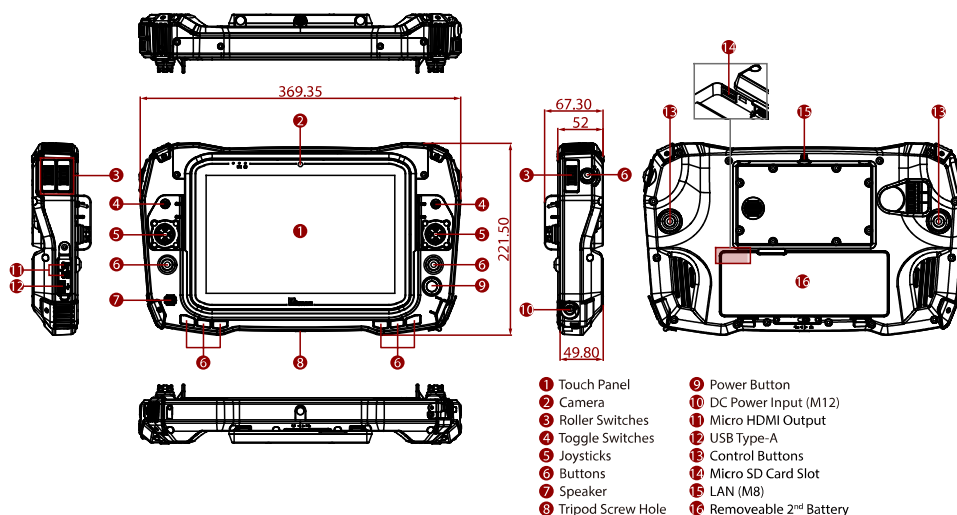|	
Button	Left Side: 1x joystick 2x roller switch 1x 2 band toggle switch 4x button (front side) 1x control button (rear side) Right Side: 1x joystick 1x roller switch 5x button (front side) 1x power button 1x 2 band toggle switch 1x control button (rear side)

Power

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) 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.