TG500G7

5.5" ARM A78 + A55 Android Rugged Tablet 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
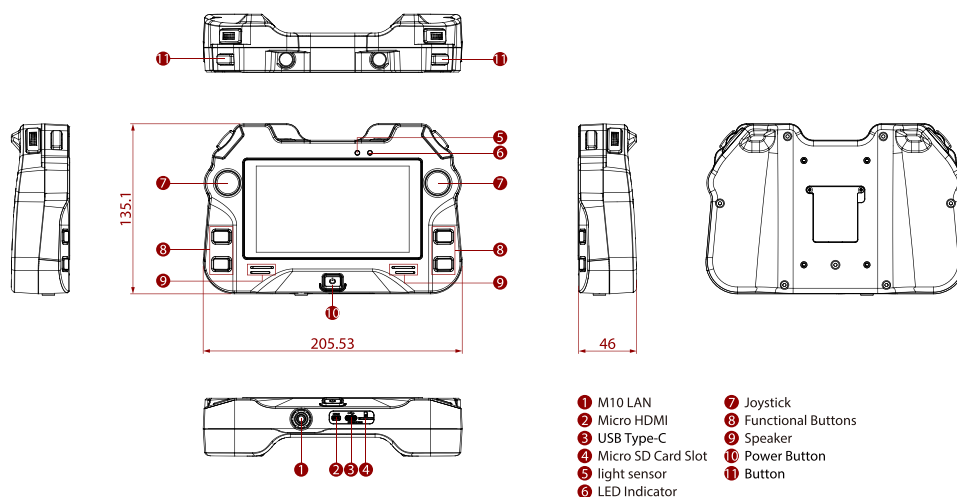- Supports WIFI/BT

INTRODUCTION

Winmate's 5.5-inch Android rugged tablet controller offers portable performance in a compact design for frontline mobility. It's 1920 × 1080 TFT LCD panel with direct bonding delivers sharp visuals, while the ergonomic form factor ensures ease of use in the field. Powered by the Genio 510 processor with Android OS, it supports reliable connectivity via Wi-Fi and Bluetooth. Built to IP65 and MIL-STD standards, this device withstands dust, water, drops, shock, and vibration for dependable all-weather durability.

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	204.2 x 135.1 x 46 mm	Cooling System	Fanless 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 M10 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	8 x Buttons		
Power			
Battery	3.7V, typ. 3200mAh Rechargeable Lithium Battery (2S1P)	**Battery Operating Time**	8hrs (2 batteries) 16hrs (4 batteries)
Power Rating	19V DC	**Adapter**	100-240V, 50-60Hz / 19V DC
Accessory			
Accessory	1 x PD Adapter 100W 1 x M10 LAN external cable(2M) 1 x Power Cord 2 x Antenna (optional for RF module)	**Optional Accessory**	Shoulder Strap(Optional) Microhard 2450 (Optional)

DIMENSIONS   UNIT:MM

135.1

205.53

46

❶ M10 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 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.