Robotics Controller

Precision and Durability for Every Mission

Winmate Inc.

Robotics Controller

Enhanced Security Precision and Durability for Every Mission

Robotics Controller
Portable Ground Control Station

Success Stories

Advancing Smart Agriculture through AI and Robotics in Taiwan

Multi-Robot Collaboration and Intelligent Monitoring System

Background

In Taiwan, smart agriculture has seen transformative advancements through the integration of artificial intelligence (AI), agricultural sensors, the Internet of Things (IoT), drones, and robots. A notable success story demonstrates the effective application of these technologies in optimizing agricultural production and management.

Core Products

- G101TG - 10.1” Intel® Tiger Lake Robotics Controller

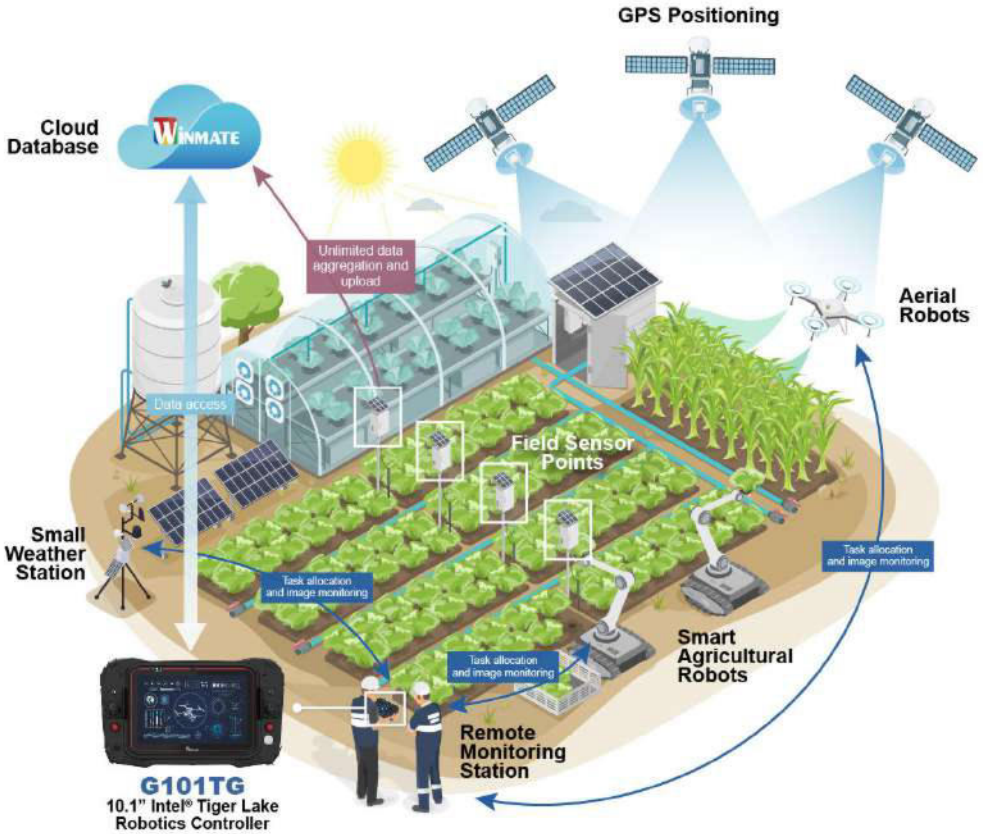
Main Challenges

In the development of Taiwan's smart agriculture system, Winmate's technology played a critical role. Integrating ground and aerial robots required solving compatibility and communication issues, and Winmate’s controllers provided a stable solution, customized to handle diverse agricultural tasks and environments. The system's design needed to be weather-resistant for stable operation in various conditions. Real-time data processing relied on high-performance computing to handle large volumes of sensor and camera data, achieving precise environmental monitoring and pest detection. Winmate’s customized controllers were vital in multi-source data integration and AI-driven analysis, while ensuring the system’s scalability for different agricultural applications, including marine environments.

Why Winmate

The case involves a sophisticated system that combines multiple ground and aerial robots with an intelligent monitoring system, using Winmate’s advanced Robotics Controller. This system was designed to address key challenges in growing economic crops by providing precise measurements of environmental factors, detecting pests and diseases, and evaluating harvest projections.

G101TG



Expanding Underwater Drone Control for Greater Reach

Affordable Solutions for Enhanced Underwater Exploration

Background

The partnership between Nordic Robotics and Winmate has opened new possibilities in underwater exploration, combining Nordic Robotics' advanced underwater drone with Winmate's state-of-the-art robotics controller. This collaboration delivers unparalleled efficiency, precision, and innovation in subaquatic operations, pushing the limits of what underwater robotics can achieve.

Core Products

- G101TG - 10.1” Intel® Tiger Lake Robotics Controller

Main Challenges

The integration of Winmate's robotics controller with Nordic Robotics' advanced underwater drone addressed critical challenges to optimize performance in subaquatic environments.

- Environmental Durability: The system was designed to withstand high water pressure, temperature fluctuations, and saltwater corrosion, ensuring reliable operation in harsh underwater conditions.
- Real-Time Data Processing: Low-latency, high-resolution video streaming was implemented to support accurate underwater exploration, alongside reliable communication for seamless operations in remote locations.
- Advanced Remote-Control Capabilities: Nordic Robotics’ Live Remote Control technology enabled global, real-time operation of remotely operated vehicles (ROVs). Operators could control drones from miles away through a browser-based app, offering unmatched flexibility and accessibility.

With Nordic Robotics' Live Remote Control technology, operators can remotely manage ROVs or Hybrid ARV autonomous underwater vehicles (AUVs)/tethered ROVs from any location, providing a powerful solution for efficient and precise underwater exploration.

Why Winmate

Winmate is renowned for its innovative technology and robust solutions, making it a trusted partner in various industries. Their advanced robotics controllers and ground control stations are designed for durability and high performance, ensuring reliable operation in challenging environments. This expertise in robotics controllers made Winmate the ideal choice for a collaboration aimed at enhancing underwater operations.

G101TG

Enhancing Safety and Efficiency with Unmanned Robots in Nuclear Power Plants

Pioneering Precision Robotics for Hazardous Environments

Background

Nuclear power plants are critical to the global energy supply, providing a sustainable and low-carbon energy source. However, maintaining and inspecting these plants comes with inherent challenges due to high radiation levels, confined spaces, and complex infrastructure. Unmanned robots equipped with advanced control systems have emerged as game-changing tools for ensuring worker safety and operational efficiency in such hazardous environments.

Robots can perform tasks such as structural inspections, environmental monitoring, and decontamination, reducing human exposure to radiation and enhancing precision in maintenance. Leveraging robust control stations ensures seamless communication and operation in these high-stakes applications.

Core Products

- G101AD-A Robotics Controller

Main Challenges

- High Radiation Environments
- Confined and Complex Spaces
- Extreme Reliability Requirements
- Limited Visibility and Accessibility
- Demand for Real-Time Data

Why Winmate

Winmate's G101AD-A Robotics Controller transforms robotic operations in nuclear power plants by overcoming challenges such as high radiation, confined spaces, and the need for reliable performance. Featuring an advanced processor, a 10.1-inch high-resolution touchscreen with optional ultra-bright display, and cutting-edge connectivity like Wi-Fi 6 and LTE, it ensures seamless communication and operational efficiency.

With intuitive controls and ergonomic interfaces, the G101AD-A streamlines workflows, reduces risks, and boosts productivity. Backed by Winmate's expertise in rugged computing and robotics, it is the trusted solution for enhancing safety and precision in critical applications.

G101AD-A

Revolutionizing Smart Agriculture with Robotics Controller

Optimizing Farming Operations with Advanced Controllers

Background

Smart agriculture is transforming the way farmers manage resources, improve crop yields, and ensure sustainability. Unmanned helicopters play a crucial role in this transformation by enabling precision agriculture practices such as aerial spraying, crop monitoring, and field mapping. These helicopters allow farmers to cover large areas efficiently, reduce waste, and minimize environmental impact. To maximize their potential, robust and reliable control systems are essential to ensure seamless operation, even in challenging agricultural environments.

Core Products

- G101TG - 10.1” Intel® Tiger Lake Robotics Controller

Main Challenges

- Demand for Precision
- Extreme Environmental Conditions
- Rural Connectivity Issues
- Ease of Operation

Why Winmate

Winmate’s G101TG Robotics Controller is the perfect solution for smart agriculture, combining durability, advanced functionality, and user-focused features. Engineered to withstand harsh agricultural environments, it offers resistance to dust, water, and extreme temperatures, ensuring reliable performance in the field. The high-brightness display provides excellent visibility in any lighting condition, while advanced connectivity ensures seamless data flow even in remote areas.

With ergonomic controls and a user-friendly interface, the G101TG simplifies operation and minimizes the learning curve. Backed by Winmate’s proven expertise in rugged computing and robotics, it empowers users with innovative and dependable technology tailored to the demands of modern agriculture.

G101TG

Overview

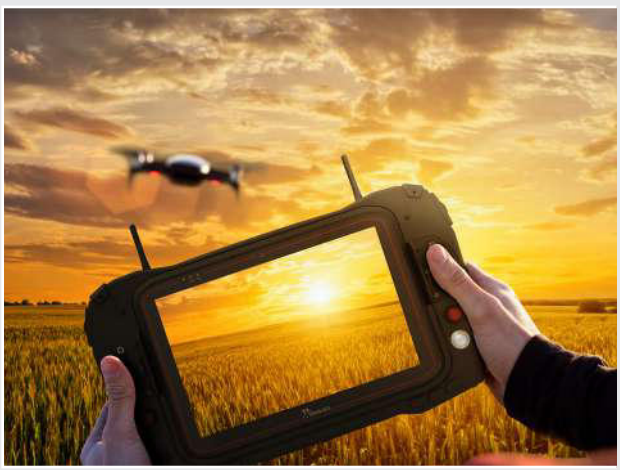
Winmate's Robotics Controller are cutting-edge platforms designed for precise management of unmanned systems and robotics in dynamic environments. These solutions integrate robust hardware with advanced software, providing operators with seamless control, real-time data visualization, and secure communication for mission-critical operations.

The Robotics Controller is optimized for applications such as UAV navigation and autonomous vehicle coordination, featuring high-performance computing, intuitive user interfaces, and low-latency video streaming. The Robotics Controller is tailored for robotics management, offering reliable control for ground-based robots with extended wireless connectivity, real-time processing, and environmental durability.

Built to meet industrial and military-grade standards, both stations are engineered for resilience in harsh environments, ensuring uninterrupted operation and precise execution of tasks. Winmate's Robotics Controller redefine operational efficiency and reliability, empowering industries from defense and logistics to agriculture and beyond.

Features:

- Equipped with a low-latency video software decoder, ensuring seamless, high-definition video streaming for mission-critical operations.
- Built to endure harsh environments with an IP65 rating for water and dust resistance and MIL-grade certifications for drop, shock, and vibration protection.
- Supports optional Wi-Fi, Bluetooth, and 4G, complemented by dual antennas for superior connectivity and signal stability.
- Features a removable second battery, delivering over 10 hours of continuous operation, essential for demanding UAV missions and professional pilots.



Applications of Winmate Robotics Controller

Winmate's **Robotics Controller** are versatile platforms designed to excel in a wide range of applications:

- **Robot Control Panel:** Provide precise real-time control and monitoring of autonomous robots in manufacturing, logistics, and field operations.
- **Field Service:** Enable technicians to operate and manage machinery remotely in harsh environments, enhancing efficiency and reducing downtime.
- **Automated Machinery:** Facilitate seamless integration with automated systems, ensuring reliable operation and advanced diagnostics for industrial automation.
- **Smart Farming:** Support the coordination of agricultural drones and ground robots for crop monitoring, soil analysis, and automated harvesting.
- **Geospatial Mapping:** Enable accurate data collection and mapping through UAVs and robotics, ideal for surveying, infrastructure planning, and environmental studies.
- **Search & Rescue:** Provide mission-critical control of drones and ground robots in disaster response, aiding in locating survivors and delivering vital resources.

Winmate Robotics Controller deliver robust performance and unmatched versatility, making them indispensable for industries requiring intelligent, durable, and high-precision control systems.

ROBOT CONTROL PANEL

FIELD SERVICE

AUTOMATED MACHINERY

SMART FARMING

GEOSPATIAL MAPPING

SEARCH & RESCUE

Robotics Controller Key Features

Winmate's Robotics Controller are built to withstand the toughest environments, featuring industrial and MIL-grade durability. These stations are resistant to shocks, vibrations, extreme temperatures, and environmental hazards, ensuring reliable performance in challenging field conditions.

With advanced wireless connectivity, the Robotics Controller provide uninterrupted communication between operators and machines. Whether managing UAVs or ground robots, the stations ensure low-latency, secure, and real-time data transfer for mission-critical operations.

Equipped with sunlight-readable, weatherproof displays, the Robotics Controller are designed for visibility in any condition, from bright sunlight to heavy rain. This feature ensures operators maintain full control and situational awareness regardless of environmental challenges.

Designed for long missions, the Robotics Controller offer extended battery life to support uninterrupted operation. This ensures maximum uptime for applications like search and rescue, smart farming, and automated machinery control.

The Robotics Controller are equipped with modular and customizable control interfaces, allowing users to adapt the systems to their unique operational needs. This flexibility makes them suitable for diverse applications across industries.

Winmate prioritizes operator comfort and efficiency, incorporating ergonomic designs into the Robotics Controller. The intuitive layouts and user-friendly interfaces reduce operator fatigue during extended use, enhancing productivity and ease of operation.

Customizable Embedded Wireless Modules: Flexibility and Performance for Robotics Controller

Winmate's Robotics Controller are designed with customizable embedded wireless modules, providing exceptional adaptability to meet the unique demands of various industries and applications. These modules offer support for multiple wireless technologies, including Wi-Fi, LTE, 5G, private radio networks, and even satellite communication, ensuring reliable connectivity across diverse environments and mission requirements.

Key Advantages of Customizable Wireless Modules

1. Tailored Connectivity Options

Operators can select and configure the most suitable wireless technology based on their operational needs. Whether managing UAVs in urban areas with 5G networks, robots in remote locations via LTE or satellite, or secure private networks for defense applications, the Robotics Controller adapt seamlessly to your requirements.

2.Real-Time Data Transmission

The wireless modules are optimized for low-latency and high-bandwidth performance, making them ideal for real-time video streaming, telemetry data, and command control. This ensures precise and responsive operation for mission-critical tasks like geospatial mapping, search and rescue, and automated machinery monitoring.

3.Scalability for Future Expansion

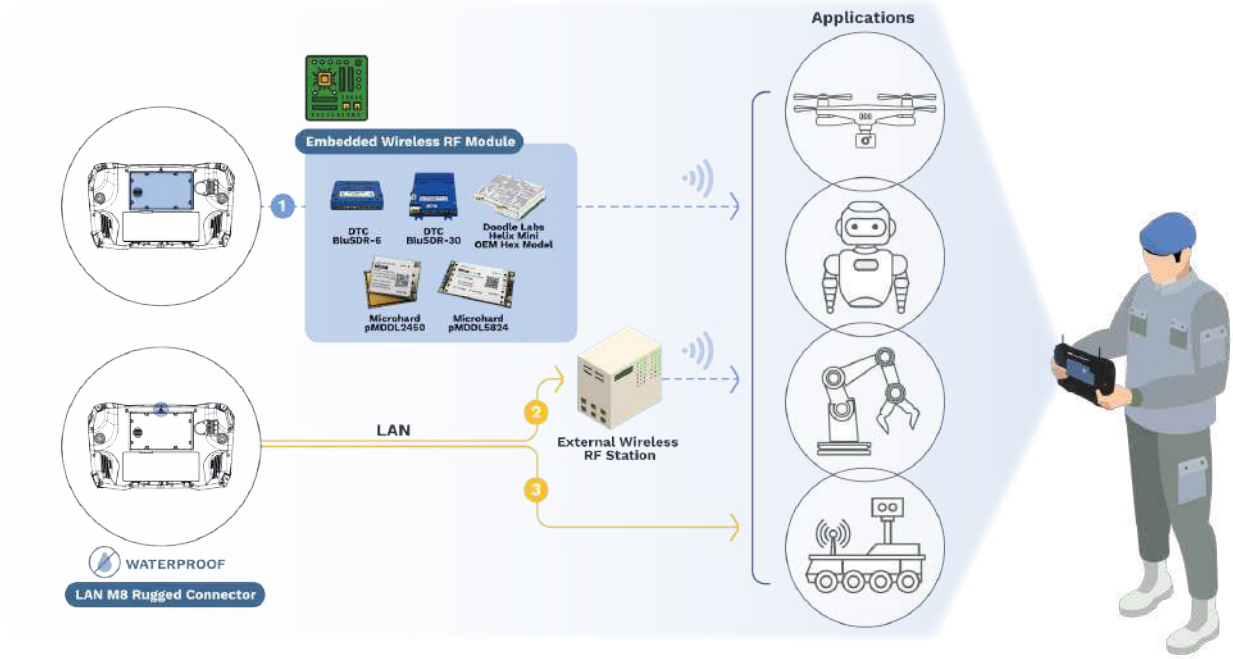
The modular design enables easy upgrades as wireless technologies evolve, ensuring that your Robotics Controller remain future-proof. This scalability supports the integration of emerging communication standards, keeping your operations ahead of technological advancements.

4.Seamless Network Integration

The customizable wireless modules allow seamless integration with existing network infrastructures. This enhances interoperability across devices and systems, enabling efficient coordination between multiple units and control stations.

5.Durability and Reliability

Designed to operate in harsh environments, these modules are resistant to environmental factors such as extreme temperatures, humidity, and physical shocks. This ensures dependable performance during prolonged field operations, even in the most challenging conditions.



Robotics Controller
Portable Ground Control Station

	Windows	Android & Linux
5"		 **G500G7** Genio 510 2 x A78 2.0GHz + 4 x A55 2.0GHz
8"	 **G900AD** Intel Core i5-1235U Processor (i5-1335U Optional) Optional Intel Core i3/i7 Processor	 **G900G7** Genio 510 2 x A78 2.0GHz + 4 x A55 2.0GHz
10.1"	 **G101AD-A** Intel Core i5-1235U Processor (i5-1335U Optional) Optional Intel Core i3/i7 Processor	 **G101Q9-A** Qualcomm 6490 Processor
10.1"	 **G101TG** Intel Core i5-1135G7 Processor Optional Intel Core i3/i7 Processor	 **G101G7** Genio 700 2 x A78 2.2GHz + 6 x A55 2.0GHz
15.6"	 **G156AD-SUIT** Intel Core i5-1235U Processor (i5-1335U Optional) Optional Intel Core i3/i7 Processor	

13.3” , 14” and 15.6” AI Rugged Laptop

13.3"

L140AD-3

Intel® Core™ i5-1235U Processor

14"

L140AD-4

Intel® Core™ i5-1235U Processor

L140AD-4L

Intel® Core™ i5-1235U Processor

15.6"

L156AD

Intel® Core™ i5-1235U Processor
Optional Intel Core i7/i9 Processor

L156AD-M1

Intel® Core™ i5-1235U Processor
Optional GPU Graphic Cards

15.6"

L156AD-4KM1

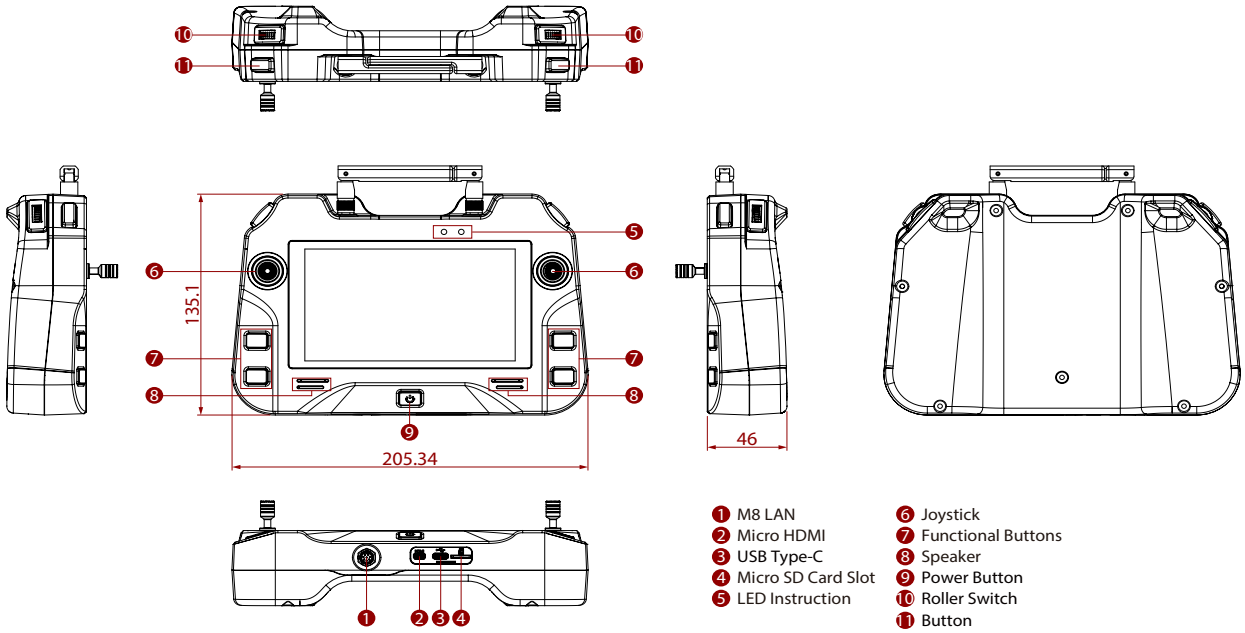
Intel® Core™ i5-1235U Processor
4K Panel Resolution with PCAP Touch
Optional GPU Graphic Cards

13.3”, 14” and 15.6” AI Rugged Tablet

13.3"	 **M133TG** Intel® Core™ i5-1135G7 Tiger Lake Processor	 **M133WK** Intel® Core™ i5-8265U Whiskey Lake processor
14"	 **D140AD** Intel® Core™ i5-1235U Processor	 **M140TG** Intel® Core™ i5-1135G7 Tiger Lake Processor
15.6"	 **M156AD** Intel® Core™ i5-1235U Processor	 **M156AD-M1** Intel® Core™ i5-1235U Processor Optional GPU Graphic Cards

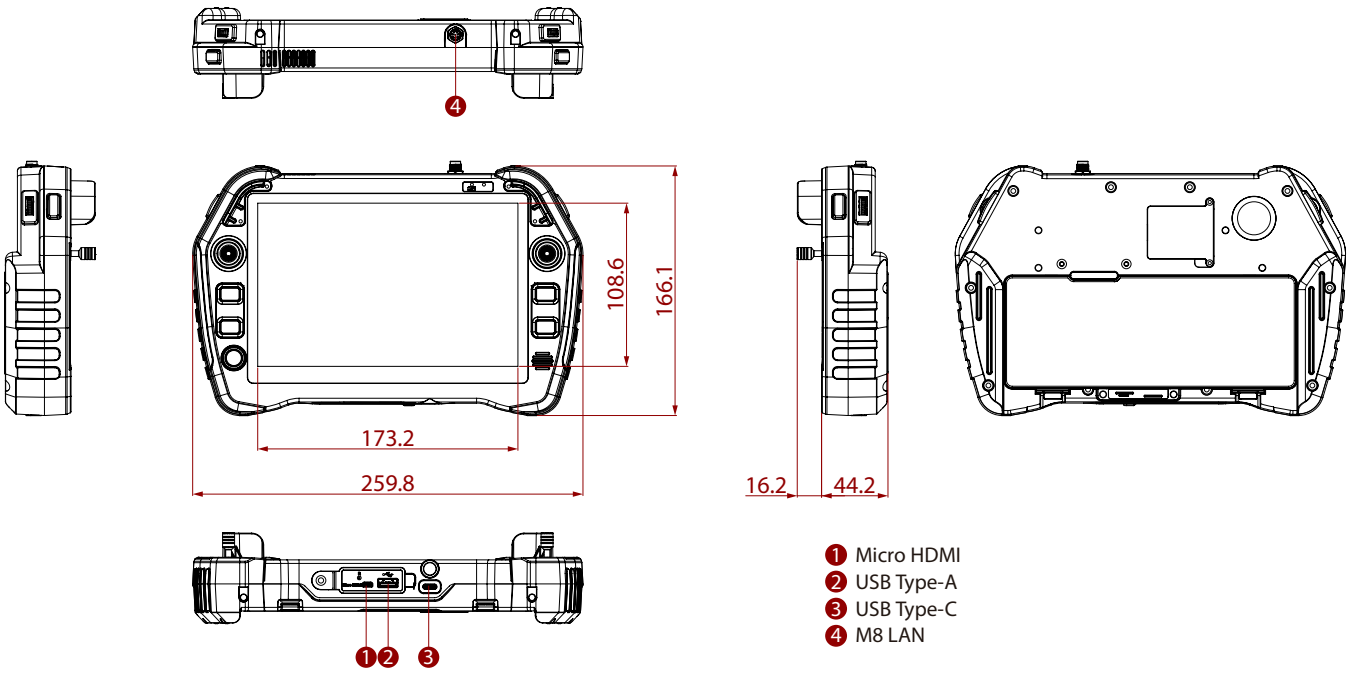
Form Factor

5.5" G500G7



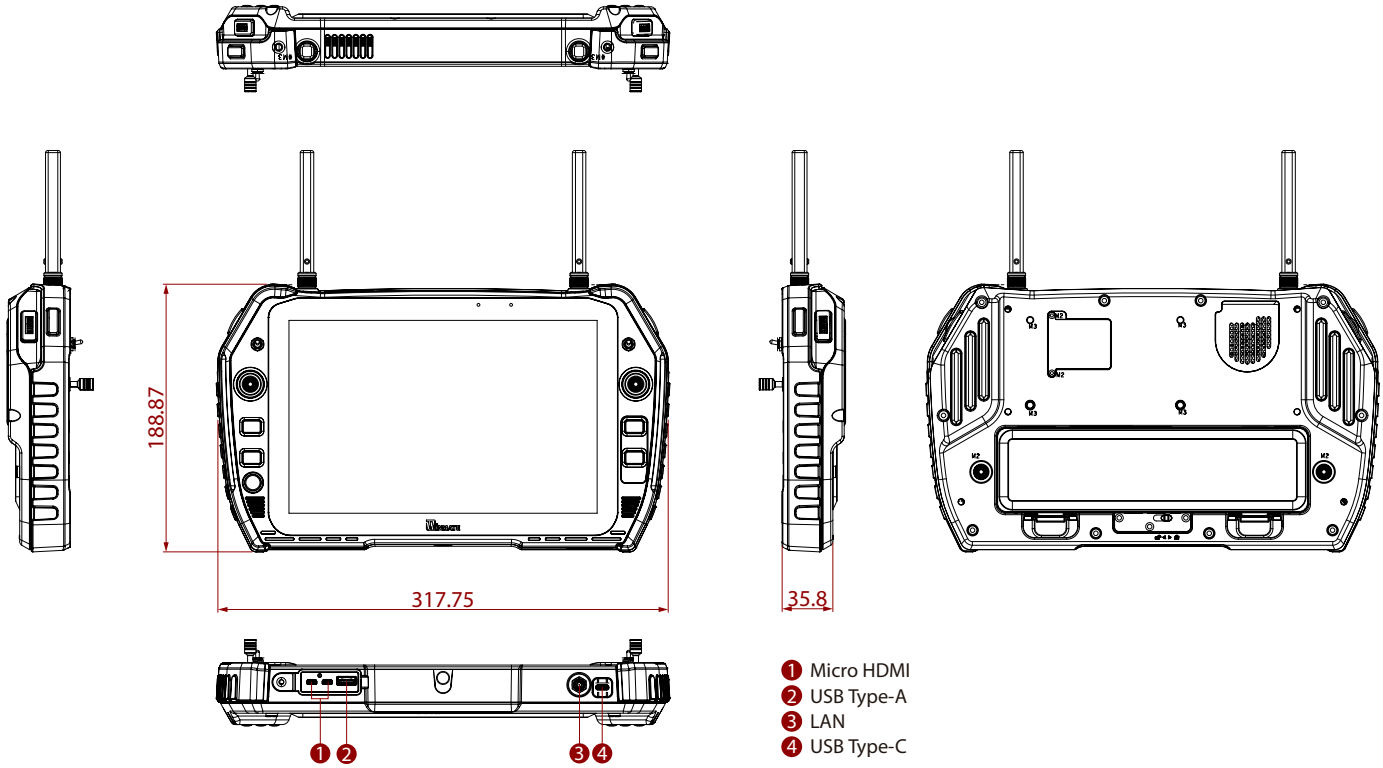
1. M8 LAN
2. Micro HDMI
3. USB Type-C
4. Micro SD Card Slot
5. LED Instruction
6. Joystick
7. Functional Buttons
8. Speaker
9. Power Button
10. Roller Switch
11. Button

8" G900AD/G900G7



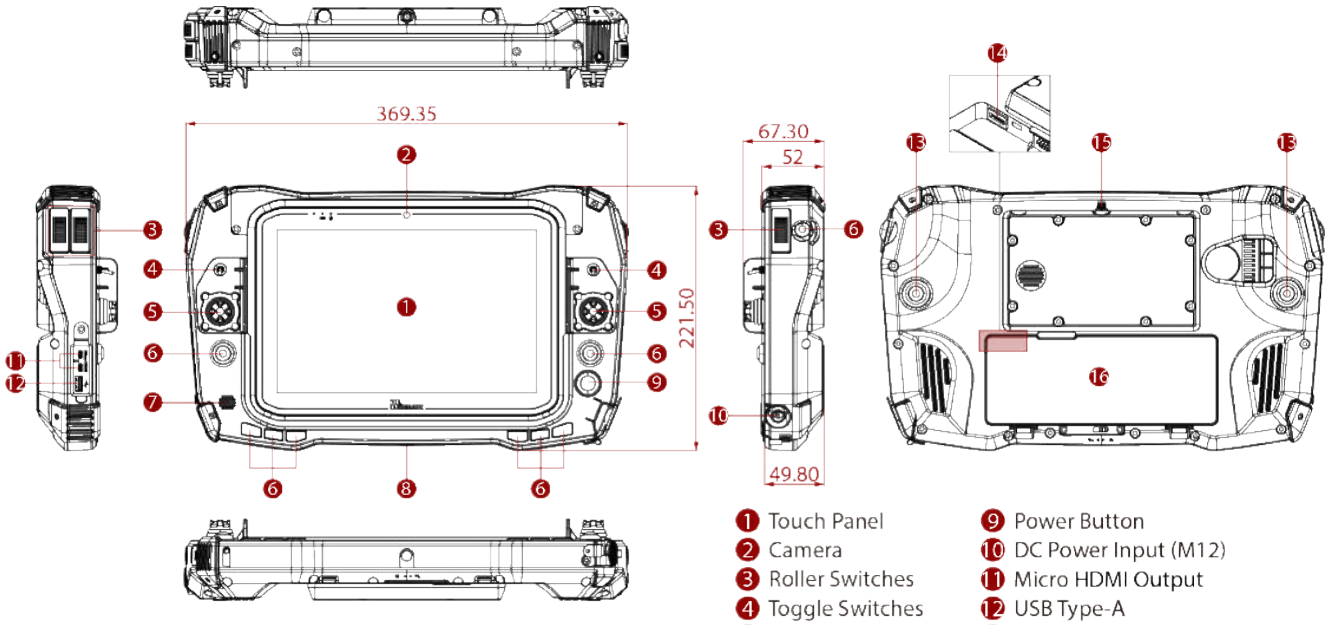
1. Micro HDMI
2. USB Type-A
3. USB Type-C
4. M8 LAN

10.1" G101AD-A/G101Q9-A



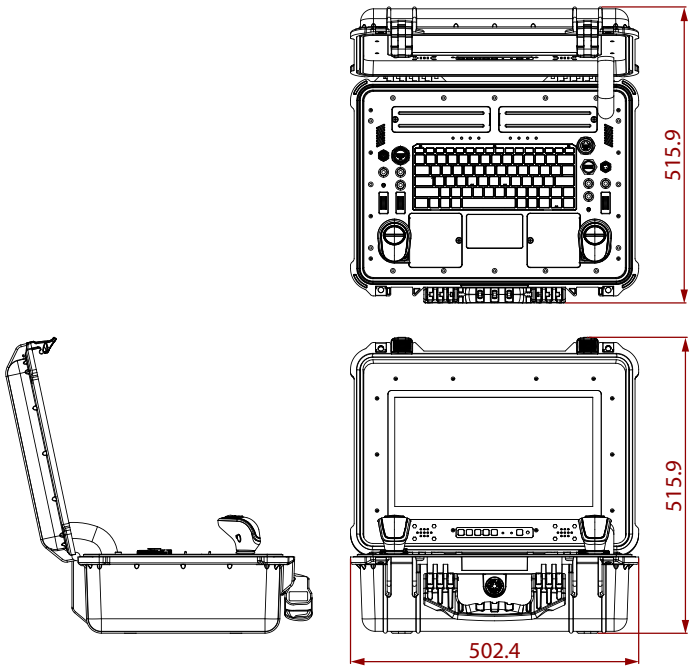
1. Micro HDMI
2. USB Type-A
3. LAN
4. USB Type-C

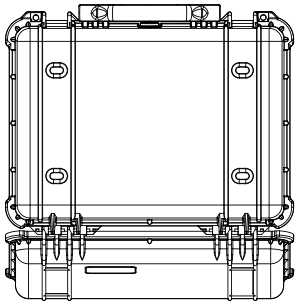
10.1" G101TG/G101G7



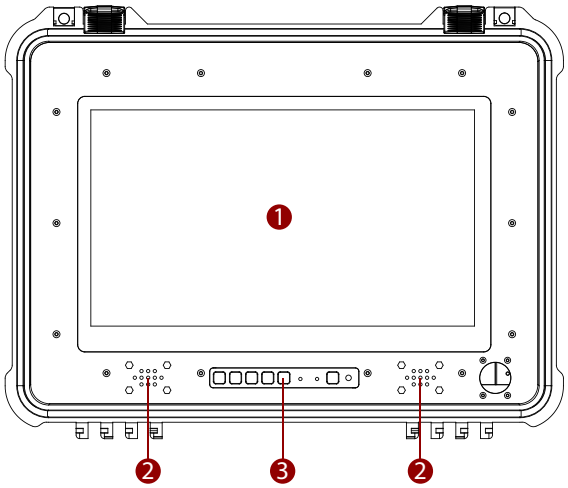
1. Touch Panel
2. Camera
3. Roller Switches
4. Toggle Switches
5. Joysticks
6. Buttons
7. Speaker
8. Tripod Screw Hole
9. Power Button
10. DC Power Input (M12)
11. Micro HDMI Output
12. USB Type-A
13. Control Buttons
14. Micro SD Card Slot
15. LAN (M8)
16. Removeable 2nd Battery

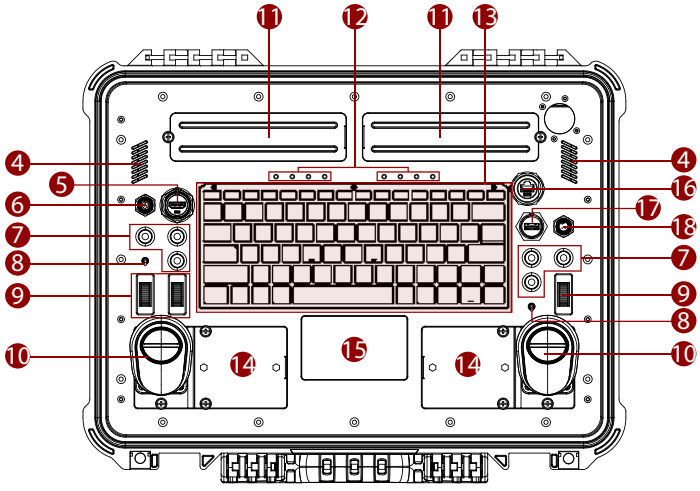
15.6" G156AD-SUIT





1 Touch Panel
2 Speakers
3 OSD Control Panel
4 Fan
5 HDMI
6 COM
7 Buttons
8 Toggle Switches
9 Roller Switches
10 Joysticks
11 Removable Batteries
12 Battery Status
13 Keyboard
14 Joystick Storage Area
15 Touch Pad
16 LAN
17 USB
18 Power Input





5.5 inches

Specifications: G500G7

Model Name		G500G7
Display	Resolution	1920 x 1080
	Contrast Ratio	1000:1
	View Angles	80,80,80,80
	Size	5.5 inches
	Panel Brightness	1000 nits
System Specification	Processor	Genio 510 2 x A78 2.2GHz + 4 x A55 2.0GHz
	Storage	64GB eMMC
	BT	Support
	WLAN	Support
	Memory	4GB
	Operating System	Android 13.0
I/O Connectors	USB Port	1 x USB 3.0 (Type C)
	LAN	1 x M8 LAN Connector (10/100 Mbps , Max to 250 Mbps)
	Video Output	1 x micro HDMI output
Control	Physical Channel	2 x joystick 2 x Roller switch 6 x buttons
Mechanical and Environment	IP Rating	IP65
	Operating Humidity	10% to 90% RH, non-condensing
	Shock	MIL-STD-810H Method 516.8, Procedure I
	Vibration	MIL-STD-810H Method 514.8, Procedure I
Others	Internal Battery	7.4V, typ. 2950mAh Li Ion Rechargeable Internal Battery (2S1P)
	Operating Temperature	-20°C to 60°C (AC mode), -10°C to 50°C (Battery mode)
	Dimension (W x H x D)	205.34 x 135.1 x 46 mm
Accessory	Accessory	1 x Adapter 19V/65 W 1 x M8 LAN external cable(2M) 1 x Power Cord
	Optional Accessory	shoulder strap(Optional)

8 inches

Specifications: G900AD/G900G7

Model Name		G900AD	G900G7
Display	Resolution	1920 x 1200	1920 x 1200
	Contrast Ratio	1000:1 (typ)	1000:1 (typ)
	View Angles	85,85,85,85	85,85,85,85
	Size	8 inches	8 inches
	Panel Brightness	1000 nits	1000 nits
	Touch Mode	Support Hand / Gloves and Rain Mode	Support Hand / Gloves and Rain Mode
System Specification	Processor	Intel® Core™ i51235U 3.3GHz(up to 4.40 GHz) Intel Core i3/i7 Processor (Optional)	Genio 510 2 x A78 2.2GHz + 4 x A55 2.0GHz
	Operating System	Windows 10 IoT Enterprise LTSC (64 bit) (Optional) Windows 11 IoT Enterprise LTSC (64 bit) (Optional) Linux Ubuntu 22.04 (Optional)	Android 13.0
	System Memory	8GB DDR5 SDRAM, up to 32GB	8GB DDR5 SDRAM, up to 32GB
	Storage	256GB SSD 512GB SSD (Optional) 1TB SSD (Optional) 2TB SSD (Optional)	256GB SSD 512GB SSD (Optional) 1TB SSD (Optional) 2TB SSD (Optional)
	WLAN	Support	Support
	Bluetooth	Support	Support
	GNSS	GPS/GLONASS	GPS/GLONASS
	WWAN	4G LTE (Optional) 5G (Optional)	4G LTE (Optional) 5G (Optional)
Control	Physical Channel	2 x joystick 2 x Roller switch 6 x buttons	2 x joystick 2 x Roller switch 6 x buttons
Mechanical and Environment	IP Rating	IP65	IP65
	Drop	MIL-STD-810H Method 516.8, Produce IV, 4 feet	MIL-STD-810H Method 516.8, Produce IV, 4 feet
	Shock	MIL-STD-810H Method 516.8, Procedure I	MIL-STD-810H Method 516.8, Procedure I
	Vibration	MIL-STD-810H Method 514.8, Procedure I	MIL-STD-810H Method 514.8, Procedure I
	EMC	CE, FCC, Compliance MIL-STD-461G	CE, FCC, Compliance MIL-STD-461G
I/O Connectors	USB Port	1 x USB 3.0 (TypeA) 1 x USB 3.2 Gen 2 x 1 (Type C)	1 x USB 3.0 (TypeA) 1 x USB 3.2 Gen 2 x 1 (Type C)
	LAN	1 x M8 LAN Connector (10/100 Mbps , Max to 250 Mbps)	1 x M8 LAN Connector (10/100 Mbps , Max to 250 Mbps)
	VIDEO Output	1 x micro HDMI output	1 x micro HDMI output
	Audio	1x Speaker	1x Speaker
Control	Button	2x joystick 2x Roller switch 6 x buttons 1x speaker	2x joystick 2x Roller switch 6 x buttons 1x speaker
Mechanical and Environment	IP Rating	IP65	IP65
	Operating Humidity	MIL-STD-810H Method 516.8, Produce IV, 4 feet	MIL-STD-810H Method 516.8, Produce IV, 4 feet
	Shock	MIL-STD-810H Method 516.8, Procedure I	MIL-STD-810H Method 516.8, Procedure I
	Vibration	MIL-STD-810H Method 514.8, Procedure I	MIL-STD-810H Method 514.8, Procedure I
	Operating Temperature	-20°C to 60°C (AC mode), -10°C to 50°C (Battery mode)	-20°C to 60°C (AC mode), -10°C to 50°C (Battery mode)
Others	Battery	11.4V, typ. 3500 mAh Li Ion Rechargeable Internal Battery (3S1P) 11.4V, typ. 4750 mAh Li Ion Rechargeable Secondary Battery (3S1P)	11.4V, typ. 3500 mAh Li Ion Rechargeable Internal Battery (3S1P) 11.4V, typ. 4750 mAh Li Ion Rechargeable Secondary Battery (3S1P)
	Power Rating	1 x USB (Type C) (Charging)	1 x USB (Type C) (Charging)
	Dimension (W x H x D)	259.8 x 166.1 x 44.2 mm	259.8 x 166.1 x 44.2 mm
	Cooling System	Fan Design	Fan Design
Accessory	Accessory	1 x PD Adapter 100W 1 x M8 LAN external cable(2M) 1 x Power Cord	1 x PD Adapter 100W 1 x M8 LAN external cable(2M) 1 x Power Cord
	Optional Accessory	shoulder strap(Optional)	shoulder strap(Optional)

10.1 inches

Specifications: G101AD-A/G101Q9-A

Model Name		G101AD-A	G101Q9-A
Display	Resolution	1920 x 1200	1920 x 1200
	Contrast Ratio	800:1 (typ)	800:1 (typ)
	View Angles	85,85,85,85	85,85,85,85
	Size	10.1 inches	10.1 inches
	Panel Brightness	800 nits	800 nits
	Type	Projected Capacitive Multi Touch	Projected Capacitive Multi Touch
	Bonding	Optical Bonding for Sunlight Viewability	Optical Bonding for Sunlight Viewability
	Viewability	AG+AF touch treatment	AG+AF touch treatment
System Specification	Processor	Intel® Core™ i5-1235U 3.3GHz(up to 4.40 GHz) Intel Core i3/i7 Processor (Optional)	Qualcomm® 6490 (OctaCore 2.7GHz)
	Operating System	Windows 10 IoT Enterprise LTSC (64 bit) (Optional) Windows 11 IoT Enterprise LTSC (64 bit) (Optional) Linux Ubuntu 22.04 (Optional)	Android 13.0
	System Memory	8GB DDR5 SDRAM, up to 32GB	6 GB
	Storage	256GB SSD 512GB SSD (Optional) 1TB SSD (Optional) 2TB SSD (Optional)	128GB
	WLAN	Support	Support
	Bluetooth	Support	Support
	GNSS	GPS/GLONASS	GPS/GLONASS
	WWAN	4G LTE (Optional) 5G (Optional)	4G LTE (Optional) 5G (Optional)
Control	Physical Channel	2 x Toggle Switch 2 x joystick 2 x Roller switch 6 x buttons	2 x Toggle Switch 2 x joystick 2 x Roller switch 6 x buttons
Mechanical and Environment	IP Rating	IP65	IP65
	Operating Humidity	10% to 90% RH, non-condensing	10% to 90% RH, non-condensing
	Shock	MIL-STD-810H Method 516.8, Procedure I	MIL-STD-810H Method 516.8, Procedure I
	Vibration	MIL-STD-810H Method 514.8, Procedure I	MIL-STD-810H Method 514.8, Procedure I
	Operating Temperature	-20°C to 60°C (AC mode), -10°C to 50°C (Battery mode)	-20°C to 60°C (AC mode), -10°C to 50°C (Battery mode)
I/O Connectors	USB Port	1 x USB 3.0 (TypeA) 1 x USB 3.2 Gen 2 x 1 (Type C)	1 x USB 3.0 (TypeA) 1 x USB 3.2 Gen 2 x 1 (Type C)
	LAN	1 x M8 LAN Connector (10/100 Mbps , Max to 250 Mbps)	1 x M8 LAN Connector (10/100 Mbps , Max to 250 Mbps)
	VIDEO Output	2 x micro HDMI output	2 x micro HDMI output
	Audio	2x Speaker	2x Speaker
Control	Physical Channel	2x joystick 2x Roller switch 6 x buttons 1x speaker	2x joystick 2x Roller switch 6 x buttons 1x speaker
Others	Battery	11.1V, typ. 6400 mAh Li Ion Removable Battery (3S2P)	11.1V, typ. 6400 mAh Li Ion Removable Battery (3S2P)
	Power Rating	1 x USB (Type C) (Charging)	1 x USB (Type C) (Charging)
	Dimension (W x H x D)	317.75 x 188.87 x 35.8 mm	317.75 x 188.87 x 35.8 mm
	Cooling System	Fan Design	Fan Design
Accessory	Accessory	1 x PD Adapter 100W 1 x M8 LAN external cable(2M) 1 x Power Cord	1 x PD Adapter 100W 1 x M8 LAN external cable(2M) 1 x Power Cord
	Optional Accessory	shoulder strap(Optional)	shoulder strap(Optional)

10.1 inches

Specifications: G101TG/G101G7

Model Name		G101TG	G101G7
Display	Resolution	1920 x 1200	1920 x 1200
	Contrast Ratio	800:1 (typ)	800:1 (typ)
	View Angles	85,85,85,85	85,85,85,85
	Size	10.1 inches	10.1 inches
	Panel Brightness	800 nits	800 nits
	Touch	P-Cap Touch (10-point) with Anti-glare technology	P-Cap Touch (10-point) with Anti-glare technology
System Specification	Processor	Intel Core i5-1135G7 Processor Optional Intel Core i3/i7 Processor	Genio 700 2 x A78 2.2GHz + 6 x A55 2.0GHz
	Operating System	Windows 10 IoT LTSC, Windows 11 IoT SAC, Linux	Android 13.0 /Linux
	System Memory	8GB DDR4 (up to 32GB)	8GB DDR4 (up to 32GB)
	Storage	128GB SSD (up to 2TB)	128GB SSD (up to 2TB)
	WLAN	802.11 a/b/g/n/ac/ax	802.11 a/b/g/n/ac/ax
	Bluetooth	Bluetooth 5.3	Bluetooth 5.3
	GNSS	GPS / GLONASS	GPS / GLONASS
	WWAN(optional)	LTE module	LTE module
	Custom RF	Optional	Optional
Control	Physical Channel	2x joystick 3x Roller switch 1x Power button 2x 2 band toggle switch 11x buttons	2x joystick 3x Roller switch 1x Power button 2x 2 band toggle switch 11x buttons
Mechanical and Environment	IP Rating	IP65	IP65
	Drop	MIL-STD-810H Method 516.8, Produce IV, 4 feet	MIL-STD-810H Method 516.8, Produce IV, 4 feet
	Shock	MIL-STD-810H Method 516.8, Procedure I	MIL-STD-810H Method 516.8, Procedure I
	Vibration	MIL-STD-810H Method 514.8, Procedure I	MIL-STD-810H Method 514.8, Procedure I
	EMC	CE, FCC, Compliance MIL-STD-461G	CE, FCC, Compliance MIL-STD-461G
I/O Connectors	Data Communication	1 x USB2.0	1 x USB2.0
	Network port	1 x LAN with M8 connecter	1 x LAN with M8 connecter
	VIDEO Output	2 x micro HDMI	2 x micro HDMI
	Power Input	1 x 19V DC input	1 x 19V DC input
	SD Card	1 x Micro SD	1 x Micro SD
Control	Physical Channel	2x joystick 2x Roller switch 6 x buttons 1x speaker	2x joystick 2x Roller switch 6 x buttons 1x speaker
Mechanical and Environment	IP Rating	IP65	IP65
	Drop	MIL-STD-810H Method 516.8, Produce IV, 4 feet	MIL-STD-810H Method 516.8, Produce IV, 4 feet
	Shock	MIL-STD-810H Method 516.8, Procedure I	MIL-STD-810H Method 516.8, Procedure I
	Vibration	MIL-STD-810H Method 514.8, Procedure I	MIL-STD-810H Method 514.8, Procedure I
	EMC	CE, FCC, Compliance MIL-STD-461G	CE, FCC, Compliance MIL-STD-461G
Others	Internal Battery	11.1 V, 6400mAh, 3S2P	11.1 V, 6400mAh, 3S2P
	External Battery	11.4V 3500mAh, 3S1p	11.4V 3500mAh, 3S1p
	Operating Temperature	-20~ 60C (AC); -10~ 50C (Battery)	-20~ 60C (AC); -10~ 50C (Battery)
	Dimension (W x H x D)	369.35 x 221.5 x 49.8 mm(67.3 mm including baffle)	369.35 x 221.5 x 49.8 mm(67.3 mm including baffle)
	Gross Weight	2.4 Kg	2.4 Kg
Communication Link	Antenna	2x 3dBi Antennas	2x 3dBi Antennas
	Frequency	2.4GHz	2.4GHz
	Output Power	1W, Adjustable	1W, Adjustable
Data Capture Solutions	Front Camera	2MP webcam	2MP webcam

15.6 inches

Specifications: G156AD-SUIT

Model Name		G156AD-SUIT
Display	Resolution	1920x1080
	Contrast Ratio	800:1
	View Angles	89,89,89,89
	Size	15.6 inches
	Panel Brightness	2000.0 nits
	Viewability	AntiGlare touch treatment
	Touch Mode	Support Hand / Gloves and Rain Mode
System Specification	Processor	Intel® Core™ i5-1235U 3.3GHz(up to 4.40 GHz)
	Operating System	Windows 11 IoT Enterprise (64 bit) (Optional) Windows 11 Pro 64 bit (Optional) Linux Ubuntu 22.04(Do not support Wake on Touch) (Optional)
	System Memory	1 x SODIMM, DDR5 4800 MHz, 8GB 16GB (Optional) 32GB (Optional)
	Storage	1 x M.2 2280 MKey NVMe SSD 128GB 256GB (Optional) 512GB (Optional) 1TB (Optional) 2TB (Optional) 1 x SATA III for 2.5" SSD/HDD up to 2TB (Optional)
I/O Connectors	USB Port	1 x waterproof connector for USB 3.0 (typeA)
	Video	1 x waterproof connector for HDMI output
	LAN	1 x waterproof Giga LAN RJ45 connector
	Serial Port	1 x M12 waterproof connector for RS232
	Audio	2x Speakers
Mechanical and Environment	IP Rating	IP65
	Operating Humidity	10% to 90% RH, non-condensing
	Shock	MIL-STD-810H Method 516.8, Procedure I
	Vibration	MIL-STD-810H Method 514.8, Procedure I
	Storage Temperature	-30°C to 70°C (22°F to 158°F)
	Operating Temperature	-20°C to 60°C (AC mode), -10°C to 50°C (Battery mode)
Control	Physical Channel	2x joystick 3x roller switch 2x 2 band toggle switch 6x button 1x OSD control 1x keyboard and touch pad
Others	Internal Battery	2x 10.8 V, typ. 10050 mAh Li Ion Rechargeable Battery (3S1P) + 6x 10.8 V, typ. 10050 mAh Li Ion Non-chargeable Internal Battery (3S1P) (optional)
	Dimension (W x H x D)	502 x 401 x 188 mm
	Gross Weight	14.6 Kg
	Cooling System	Fan Design
Power	Power Rating	19V DC
Accessory	Accessory	19V Adapter and Power Cord