7" UNIVERSAL DRONE/ROBOTICS CONTROLLER | GCS-70



KEY FEATURES

- 7" 1200-nit sunlight-readable display for clear visibility in outdoor mission environments
- Long-range dual-band RF (2.4 / 5.8 GHz, FHSS-based) supporting up to 20 km LOS communication (environment-dependent)
- Real-time video transmission and telemetry for stable situational awareness and mission control
- Qualcomm® octa-core platform with Adreno™ GPU for reliable command, control, and processing performance
- Precision multi-axis control system with dual joysticks, programmable buttons, toggle switch & scroll wheel
- MAVLink-compatible with SDK support for seamless UAV and robotics system integration
- Hybrid communication architecture: RF wireless with optional 4G LTE connectivity
- Rugged IP54 & MIL-STD-810H design for dependable field deployment
- High-capacity 20,000mAh battery with USB Type-C PD fast charging, supporting 6–8 hours operation
- Android 13 with optional Linux or Windows support via ODM customization
- Customizable ODM/OEM platform covering hardware, I/O, control layout, firmware, and branding

The GCS-70 7" Universal Drone/Robotics Controller is a compact, modular control platform engineered for UAV, UGV, and industrial automation applications. Featuring a 1200-nit sunlight-readable display, Qualcomm® octa-core processing platform, and long-range RF communication, it enables stable command, telemetry, and real-time video monitoring in demanding field environments. Designed as a fully customizable ODM/OEM solution, the GCS-70 allows partners to define communication architecture, control interfaces, I/O configuration, and software integration based on mission-specific requirements. With built-in MAVLink compatibility, flexible communication options, and programmable control inputs, it provides a scalable and adaptable platform for developing next-generation control systems across aerial, ground, and autonomous robotics applications.

SPECIFICATIONS

RUGGEDNESS

IP Rating	IP54
Drop Rating	MIL-STD-810H

SYSTEM

Processor	**Qualcomm® Octa-core Platform** Reference Sample: Snapdragon™ 680 (ODM configurable)
GPU	Qualcomm® Adreno™ 610 (model varies by configuration)
Memory	8GB
Storage	128GB
OS	Android 13 (Optional: Linux or Windows via ODM customization)

DISPLAY

Screen Size	7-inch IPS LCD
Resolution	1920 x 1200 (WUXGA)
Brightness	1200 nits
Touch Screen	10-point capacitive touchscreen (supports operation with gloves and in wet conditions)
Glass Coating (Optional)	Anti-Reflective (AR) coating Anti-Glare (AG) coating Anti-Fingerprint (AF) coating

COMMUNICATIONS

Wi-Fi	Dual-band Wi-Fi 6 (2.4 GHz / 5 GHz, IEEE 802.11 a/b/g/n/ac/ax)
Bluetooth	Bluetooth 5.1
4G LTE (Optional)	Supports 4G LTE via SIM card slot
RF Transmission	Frequency Range: 2.4GHz/5.8GHz Modulation: Frequency Hopping Spread Spectrum (FHSS) Channels: 16 (integrated video, data, and telemetry) RF Output Power: 20 dBm (CE), Optional: 23 dBm (FCC) Transmission Range: 5–20 km (ground-to-air, line-of-sight)

PROTOCOL & INTEGRATION

Protocol Support	MAVLink compatible
SDK Development Support	Available for custom software development, system integration, and protocol customization
Compatibility	Supports QGroundControl, Mission Planner, and other MAVLink-based UAV systems
Optional Package	SDK and integration support package available upon request

POWER

Power Adapter	USB Type-C, supports USB Power Delivery (PD) 45W fast charging
Battery	20,000mAh Li-ion battery, supports up to 6–8 hours operation

I/O INTERFACE

Audio	1 x Microphone 2 x Speakers
Indicators	1 x Pairing Indicator LED 5 x Battery Status Indicator LEDs
Wireless & Communication	2 x Detachable Dual-Band Antennas (2.4 GHz / 5.8 GHz, 4 dBi Gain)
External I/O	1 x SIM Card Slot 1 x USB Type-C (Charging / Data / DisplayPort Output) 1 x USB Type-A (Data / Firmware Upgrade)
Control Interfaces	2 x Joysticks (X1/Y1, X2/Y2) 1 x 3-Position Toggle Switch 1 x Scroll Wheel (Gimbal / Payload Control)
Buttons & User Inputs	1 x Power Button 1 x Return-to-Home (RTH) Button 6 x Programmable Buttons (L1, L2, R1, R2, B1, B2) 1 x Pause Button 1 x Return Button 1 x Payload Trigger Button 1 x Capture Button

MECHANICAL

Dimensions	303.3 x 164.8 x 59.3mm
Weight	1440g

ENVIRONMENTAL

Temperature:	
- Operation	-10°C to 55°C
- Storage	-20°C to 50°C
Humidity	≤ 85% (non-condensing)
Atmospheric Pressure	86kPa to 106kPa

REGULATORY

Certification	FCC, CE, RoHS (others available upon request)

Note: Specifications are based on a reference sample unit.
Final configuration, performance, and features are fully customizable based on project requirements and may vary by implementation.

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DIMENSIONS AND SYSTEM LAYOUT



*Interfaces and control layout are customizable based on project requirements.

APPLICATIONS



Unmanned Aerial Vehicles (UAVs)

Supports multirotor, fixed-wing, and vTOL drones with MAVLink protocol for real-time telemetry, flight control, and payload operation.



Robotics & UGV Systems

Serves as a mobile control terminal for unmanned ground vehicles, inspection robots, and autonomous platforms.





Industrial & Infrastructure Inspection

Enables HD live video transmission and control for aerial or ground inspections in power lines, oil pipelines, and communication towers.



Agricultural & Surveying Operations

Integrates with agricultural UAVs and mapping drones for precision spraying, data collection, and mission planning.



Security & Public Safety

Used by law enforcement, firefighting, and rescue teams for surveillance, situational awareness, and real-time coordination.

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