

GROUND CONTROL STATION

GCS21

Appearance¹



¹Appearance is for reference only and is subjected to change with configurations.

- Specifications subject to change without notice.
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I/O and Human Interface Location



No.	Description	No.	Description
1.	Cable (Internal Display)	2.	Air Outlet
3.	Sub Display (For Radio Module Status)	4.	Antenna SMA Connector
5.	GNSS SMA Connector	6.	S.BUS Jack (For External Radio Module)
7.	HDMI® Connector	8.	RS232 DB9 (For Radio Module)
9.	LAN RJ45	10.	USB Type-A x 2
11.	Knob (SW1)	12.	3-way Toggle Switch (SW2)
13.	2-way Toggle Switch x 4 (SW4~SW7)	14.	Button x 8 (B1~B8)
15.	Joystick (Gimbal Control)	16.	Knob (Zoom In/Out)
17.	Throttle	18.	Battery Charger
19.	System Battery	20.	Keyboard
21.	Resistive Touchpad with Left/Right Clicks	22.	System Power Button
23.	2-way Guard Switch (SW3)	24.	Joystick (Main)
25.	AC Adapter	26.	Trim x 4 (T1, T2, T3, T4)
27.	Air Inlet		

GROUND CONTROL STATION GCS21

Computing System	
Platform	– Intel® Arrow Lake Platform
Operation System	– Windows11 IoT
Processor	– Intel® Core™ Ultra 7 255H Processor – 24MB Smart Cache, up to 5.1GHz
Graphic	– Intel® Graphics
AI Technology ^{2,3}	Optional: – nVIDIA® RTX PRO™ 2000 Blackwell – nVIDIA® Jetson AGX Orin™
Thermal Solution	– Active Cooling
Memory	– 16GB DDR5, up to 64GB
Storage	– 1 st : 256GB M.2 2280 PCIe 4.0 SSD x 1 Optional: – 1 st : 512GB/1TB M.2 2280 PCIe 4.0 SSD x 1 – 2 nd : 256GB/512GB M.2 2242 PCIe 4.0 SSD x 1
Audio	– HD Audio and Stereo Speakers
Security	– Password Security (Administrator Password, User Password) – TPM2.0 – Padlock Hole
Keyboard	– 83-Key with backlight
Touch Pad	– Resistive Touchpad with left/right clicks

Display	
Main Display	– Size: 21.5" – Resolution: 1920 x 1080 – Brightness: 1300 nits
Sub Display	For RF/Battery/UAV Status info: – Size: 2.8" Touch Screen – Resolution: TBD

Power	
Input Power	– Built-in AC-in: 100V~240V, 200W
Battery ⁴	System Battery Pack DR202 – Li-ion 10.8V/9100mAh x 2

Mechanical and Environmental Specification	
Dimensions ⁵	– TBD
Weight ⁶	– TBD
Chassis	– Color: Black
Operating Temperature	– -20°C ⁶ ~ +60°C ⁷
Storage Temperature	– -40°C ~ +70°C

Wireless & Communications	
LAN	– 1 st LAN 2.5G base-T Ethernet – 2 nd LAN 2.5G base-T Ethernet Optional: – 3 rd LAN 10G base-T Ethernet ²
WLAN/Bluetooth®	Optional: – Intel® Wi-Fi 6E / Bluetooth®5.4 (AX210)
GNSS ⁸	Optional: – GPS/GLONASS/Galileo/Beidou (u-blox Neo-M9N)

LED Indicators	
System	– Power: System ON / Modern Standby (Blue / Breathing Blue)

I/O Interfaces	
Lower Case	– USB 3.2 Gen.2 Type-A x 2 – LAN RJ45 x 2 – RS232 DB9 (For Radio Module) x 2 – SBUS Jack (For External Radio Module) x 1 – Antenna SMA Connector ⁹ x 2 – HDMI® Connector x 1 (Support 4K@50Hz/60Hz as specified in HDMI2.0b) – Battery Compartment ⁹
Button	– System Power Button

Human Interfaces	
Lower Case	– Joystick (Main 3-axis) x 1 – Joystick (Sub 2-axis) x 1 – Throttle x 1 – Knob x 2 – 3-way Toggle Switch x 1 – 2-way Toggle Switch x 4 – Button ¹⁰ x 8 – 2-way Guard Switch x 1 – Radio Module Switch x 1 – Waterproof Trim x 4

Certifications	
Certifications	– Contact your sales representative for more details.

²Need to choose optional 3rd LAN

³nVIDIA® RTX PRO™ 2000 Blackwell and Jetson AGX Orin™ are mutually exclusive.

⁴Hot-swappable with dual battery design.

⁵Varies from configurations and optional accessories.

⁶Instant Cold Boot via AC Mode.

⁷via AC Mode.

⁸SMA x 2 for GNSS Bridge Switch

⁹Slot 1 & 2 for System Battery; Slot 3 & 4 for Battery Charger

¹⁰With backlights (White)