Aerora

GS7

Ground Control Station

Purpose-built, modular, a powerful processor for applications, and NDAA.

The Aerora™ Ground Control Station (GCS) GS7 is designed to meet the demanding needs of enterprise and first responder applications.

This state-of the-art GCS is **NDAA compliant,** providing long-range, high-bandwidth, and secure communications. **A bright screen and IP 55 rating** make it ideal for outdoor use.

The modular design allows you to select a radio vendor for your drone as needed, and **Android 14 is standard.** It has the Qualcomm 6490 **IoT processor to tackle most of your flight and analytics applications,** all with 4–5-hour battery life. The operation time can be greatly extended to tackle time-consuming missions with the battery hot-swappable feature.

Its universal compatibility ensures seamless integration with any drone, versatile interfaces, full LTE optional module, and its **white-labeling capabilities offer flexible branding options.**

Benefits

NDAA Compliance	Meets industry information security and supply chain risk management standards.
Universal Compatibility	Works with most drone OEMs.
Rugged Design	Bright screen for outdoor use and built for tough environments.
Versatile Connectivity	HDMI compatible output, video streaming to multipoint locations, multiple network topologies, and LTE.
Advanced Processor	Qualcomm QCS6490 for high-performance applications.
Modular Architecture	Easily upgradeable and customizable ranging from Radio types for comms between the GCS and drone, video processing, and LTE.
White-Labeling	Customizable branding options.

Specifications subject to change without notice.

Specifications

Size	288mm x 179mm x 81mm (11.3” x 7.0” x 3.2”)
Operating System	Android 14
Processor	Qualcomm QCS6490,Kryo CPU built on Arm v8 Cortex technology
Display	7” LCD 1080P 2000 NIT LCD Touch Screen
Memory on board	128 GB Universal Flash Storage, 8 GB LPDDR RAM
Micro SD scalable	128 GB with R/W speeds up to UHS-1 Grade 3
GNSS	GPS, GLONASS, Galileo, QZSS, SBAS
Secure Communications	AES 256-bit encryption and advanced anti-interference
Flight Control	Seamless integration with existing systems and protocols – PX4, Mavlink, ArduPilot.
Battery	2S/10200mAh for 4-5 hours of operation time.
Charging Type and Time	PD2.0 | < 3 hours
Environmental	0 to 45 (32 to 113F) Battery Charging and Operations IP Rating 55
Certification	LTE Module: IC, PTCRB, GCF GS7 Controller: IC, FCC, CE

Connectivity

Frequency	2.4 GHz (2.4GHz + 5.8G optional)
Transmission Distance	10 km+ | 6 miles
WiFi	802.11 a/b/g/n/ac/ax, 2.4G/5.8G/6G
Bluetooth	5.2
Interfaces	Type-C (USB2.0), HDMI compatible, RJ-45, 3.5mm head-phone jack, SIM card x1, USB-A (2.0)
Network Types	P2P, P2MP (Default) | Options - Star Topology, Chain Topology, Mesh Topology
Cellular Network 4G	North America (Default) | Options - Asia-Pacific or Global

LTE Model

Rate	CAT 7
Band	B2, 4, 5, 7, 12, 13, 14, 25, 26, 41, 42, 43, 48, 66, 71, DC-HSPA+: B2, 4, 5
Compatibility	T-Mobile, AT&T, Verizon, US Cellular, Telus, SouthernLINC

Aerora™ has you future proofed

Accelerating Drone & Robotics Innovation

Empowering your products with NDAA-compliant propulsion, advanced ground control, and precision AI payload systems—ready to rapidly scale your solutions.

Faster Time-to-Market | 100% NDAA Compliant | Effortless Scaling

Let’s get started

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Aerora™ Multi Sensor and Lens AI Camera

The Ultimate NDAA-Compliant AI Camera + Thermal for UAVs

The Aerora™ Dual Sensor AI Camera combines 64MP RGB and FLIR thermal imaging with real-time AI processing, delivering exceptional clarity and precision for first responders, industrial inspections, and defence operations. Built to withstand extreme conditions, its rugged, lightweight design ensures easy drone integration, outstanding reliability, and full NDAA compliance—so you can operate confidently in any environment.

- **NDAA Compliance & Secure Manufacturing**
  - Meets NDAA security & supply chain standards
  - Assembled & tested in the USA
- **Dual High-Resolution Imaging**
  - 64MP RGB Camera – Crystal-clear details, 4K video at 60/30 fps
  - FLIR Boson® 640R Thermal Sensor – Sharp infrared vision, 640 × 512 resolution
- **Powerful AI & Real-time Processing**
  - 15 TOPS AI Engine – Enables real-time object detection & analytics
  - Qualcomm® QRB5165 SoC – Octa-core CPU & Adreno™ 650 GPU
- **Ultimate Stability & Seamless Integration**
  - 3-Axis Gimbal – Supports up to 31mph wind resistance
  - Multiple Interfaces – CAN, UART, SBUS, PPM, Ethernet, USB 3.0, HDMI, Mavlink
- **Reliable & Rugged Design**
  - IP44 Enclosure, IP54 Camera – Operates in harsh environments
  - Operating Temperature: -10°C to 50°C
- **White-labeling**
  - Customizable branding options.

KEY SPECIFICATIONS

Hardware	W101mm x H110mm x D90.64mm (4.0" x 4.3" x 3.6") 262g (9.2oz), Aluminum 12V	
Camera	**RGB**	**Thermal**
Resolution	64MP (1/2" sensor)	FLIR Boson® 640 x 512
Field of View (FOV)	67°HFOV	32°HFOV
F Value	F2.3	F1.0
Picture Size	64MP (9248 x 6944) 16MP (4624 x 3472)	640 x 512
Digital Zoom	924 x 694 zoom crop in 64MP mode 462 x 347 zoom crop in 16MP mode	
Picture Format	JPEG	RJPEG
Video Size	4K (3840x2160) @ 60fps or 30fps FHD (1920x1080) @ 60fps or 30fps	640 x 512 @ 30fps
Video Format	MP4 with H.264 encoding	
Live Video Stream	H.264 1280 x 720 at 30fps	
IR Image Display	Side-by-Side, Picture-by-Picture	
IR Color Modes	White hot, Black hot, Rainbow, RainHC, Ironbow, Lava, Arctic, Glowbow, Graded Fire, Hottest	
Processing & AI	**AI Engine:** 15 Tera Operations Per Second (TOPS)	
	Processor: Qualcomm QRB5165 Octa-core	
Gimbal System	**Stabilization:** 3-axis with ±0.02° precision	
	Movement: Pan/Yaw ±90°, Tilt -90° to +10°, Roll ±45°	
	Wind Resistance: Level 6 (max 14 m/s)	
SD card Support	exFAT with 64GB or larger V30 100MB/s	
Connectivity	CAN, UART, SBUS, PPM, Ethernet (10/100 Mbps), USB 3.0, HDMI	
Environmental	**Operating Temperature:** -10°C to 50°C	
	Certification: FCC, IP44	
NDAA Compliance	Meets NDAA requirements	
	Assembled, tested, and manufactured in the USA	

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UAV Power Motors

Elevate Your Flight Experience. Power Beyond Limits!

Nano Series

Precision for Pocket-sized Power

Stator Size Range	Typical Drone Class	Key Applications
0805-1404	Mini/Micro Drones (<1kg)	Cost effective entry-level motors for micro drones and hobbyists

Item No.	KV	Li-Po	Max Current (A)	Continuous Current(A)	Max RPM	Weight (g)	Propeller Recommen-dation	Typical Takeoff Weight	Max Thrust
BL0805	15000	1S	4.5	1.5	34500	3.8	2"	20g per Rotor	70 g
BL1105	4800	2S	4	2	25000	6	3"	65g per Rotor	125 g
BL1106	4800	2S	4	2	25000	7	3"	65g per Rotor	118g
BL1206	5300	2S	9	3	28000	8.1	3.5"	100g per Rotor	225 g
BL1404	4600	2S	5.2	3	17200	8	4.7"	120g per Rotor	250 g

Enterprise Series

High Performance for Longer Mission Time or Heavier Payload

Stator Size Range	Typical Drone Class	Key Applications
2408-5006	Lightweight to Mid-range Drones (<15kg)	Balanced performance for racing, FPV, Photography, Surveilance, Mid-size delivery

Item No.	KV	Li-Po	Max Current (A)	Continuous Current(A)	Max RPM	Weight (g)	Propeller Recommen-dation	Typical Takeoff Weight	Max Thrust
BL2408	1000	6S	15	8	17000	36	5"	0.5 kg per Rotor	0.8 kg
BL2808	685	4S	12.7	3	14000	70	11.8x5"	6 kg (Fixed Wing)	1.05kg
BL2414	900	6S	28	10	7160	57	7"	0.425 kg per Rotor	1.25kg
BL3212	930	6S	39	20	15200	101	8"-10"	1 kg per Rotor (Fixed Wing)	1.6kg
BL4006	430	6S	10	3.5	7800	68	12x6"	0.75 kg per Rotor	1.5 kg
BL4808	335	6S	24	5	5300	139	16.7x8.2"	1.25 kg per Rotor	3 kg
BL5006	550	6S	39	20	7650	101	8"-10"	1.5 kg per Rotor	3.5 kg

Heavy Lift Series

Unmatched Thrust and Durability

Stator Size Range	Typical Drone Class	Key Applications
6009-10015	Heavy Drones (15-40kg)	High-reliability, industrial grade motors for heavy lift drones, Large-scale logistics, Disaster-relief Drones.

Item No.	KV	Li-Po	Max Current (A)	Continuous Current(A)	Max RPM	Weight (g)	Propeller Recommen-dation	Typical Takeoff Weight	Max Thrust
BL6009	150	12S	20	6.5	5630	245	21"~23"	2.5 kg per Rotor	5 kg
BL6508	130	12S	18	7	4500	266	23x9"	2.8kg per Rotor	5.4kg
BL8708	4600	12S	5.2	9	3660	333	28x12"	4kg per Rotor	9.8kg
BL8710	110	12S	40	10.5	3600	360	30x12.2"	4.5 kg per Rotor	12 kg
BL10015	100	12S	48	16.2	3600	731	32x12.7''	5kg per Rotor	14kg

Combo Series

All in one. Less Is More

Stator Size Range	Typical Drone Class	Key Applications
4006-8710	Mid-range to Heavy-lift Drones	Arm set with integrated Propulsion System, engineered for superb cost performance

Modularized propulsion system
Patent pending Field Orientated Control (FOC) algorithms by default (BLDC available for custom options)
Proprietary Quick Release Propeller Design
High Strength Carbon Fiber material for the arms.

Item No.	Li-Po	FOC ESC	Propeller Recommendation	Carbon Fiber tube	Max Thrust
4006	6S	20A	12" CF	16mm - 20mm	1.5 kg
8710	12S	50A	32" Foldable	30mm - 35mm	10 kg

Gimbal Motors

Precision in Every Motion.

Precise. Responsive. Robust

Up to 120 deg/s rotation speed, >2000 deg/s^2 angular acceleration while still able to maintain angle prevision of 0.01 degree
Integration of digital encoder or hall effect sensor per use case.

Motor	KV	Shaft Diameter	Hole size	Voltage	Max. RPM	Max. Torque (mNm)	Weight (with cable)
GM1502	3360	/	/	12V	100	10	4.5
GM2904	186	7	5	12V	244	52	36
GM3204	144	8	6	12V	181	69	45
GM3906	107	9	6.5	12V	165	138	70

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