EPS Tech – Drones Solutions

UAV

The EPS-TECH UAV Ground Control Station boasts a range of impressive features, including 8-inch(coming soon), and 10.1- inch multi-touch displays that are powered by Qualcomm 6490 octa-core, ARM Octa-core, and a variety of Intel Core i3/i5/i7 processor. Equipped with dual antennas, the ground control station offers improved wireless connectivity, while supporting various wireless modules that provide flexibility in terms of communication protocols and frequencies.

LOW LATENCY VIDEO SW DECODER
For real-time high-resolution video viewing

EPS-TECH UAV Ground Control Station with real-time high resolution video viewing capabilities is an essential tool for any pilot. It provides a seamless and immersive experience, allowing pilots to fly their UAVs with precision and confidence, while also enabling them to capture stunning aerial footage.

COMPLIANT MIL-STD 810H   INGRESS PROTECTION IP65   Data Link   Digital Video Link

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- ✓ Agriculture.

- ✓ Public Safety.

- ✓ Search and rescue.

- ✓ Delivery.

- ✓ Construction and inspection.

- ✓ Environmental monitoring.

- ✓ Military and surveillance.

- ✓ Unmanned Air Systems.

WIRELESS COMMUNICATION Supports optional WIFI, Bluetooth and 4G/5G

UAV Ground Control Station that supports optional WIFI, Bluetooth, and 4G/5G connectivity is a powerful and convenient tool for UAV enthusiasts. With its versatility and connectivity options, users can enjoy the benefits of live video feeds, remote control, and internet access while flying their UAV

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CONFIGURABLE CONTROLLING OPTIONS
Configurable joysticks, switches and buttons. Modularize design

In addition to providing greater control and flexibility, a modularized design also makes it easier to repair or replace components if necessary. This means that pilots can easily swap out faulty or damaged modules, rather than having to replace the entire controller.

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UAV Ground Control Station Key Features

SUPPORTED EXTERNAL WIRELESS MODULES

Reserved 10/100 LAN, USB2.0 and RS232 ports to connect with external wireless module

IO CONNECTOR

USB/LAN/RS232 &
DC 3.3V/5V

External
Wireless Module

Pin №	Signal Name	Pin №	Signal Name
1	LAN_GND	2	3.3V_RF
3	TMDI0+	4	3.3V_RF
5	TMDI0-	6	3.3V_RF
7	LAN_GND	8	NC
9	TMDI1+	10	5V_RF
11	TMDI1-	12	5V_RF
13	LAN_GND	14	5V_RF
15	NC	16	NC
17	NC	18	GND
19	NC	20	GND
21	NC	22	GND
23	NC	24	USB_D-
25	NC	26	USB_D+
27	NC	28	NC
29	GND	30	GND
31	DCD	32	GND
33	TXD	34	RI
35	RXD	36	DSR
37	DTR	38	RTS
39	GND	40	CTS

Pin Definition for IO Connector

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SUPPORTED EMBEDDED VARIOUS WIRELESS MODULES Many different data links are available. Ranges up to 10 km are possible (Depending on module, regulations and configuration).

Module	GCSRF-100	GCSRF-200	GCSRF-300	GCSRF-500
Frequency	2.402 - 2.478 GHz	900 MHz & 2.4 GHz	2.4GHz or 5GHz	2.304 - 2.39GHz
Output Power	1W	1W	1W	4W

Standard   Option

- Microhard pMDDL2450
- Robust 2X2 MIMO 2.4 GHz Operation
- Adjustable total transmit power (up to 1W)
- Up to 25 Mbps Iperf Throughput @ 8 MHz channel (-78 dBM)
- Up to 2 Mbps IPerf Throughput @ 4 MHz channel (-102 dBm)
- Serial, USB and 10/100 Ethernet Ports.

Embedded RF Module

Top Side
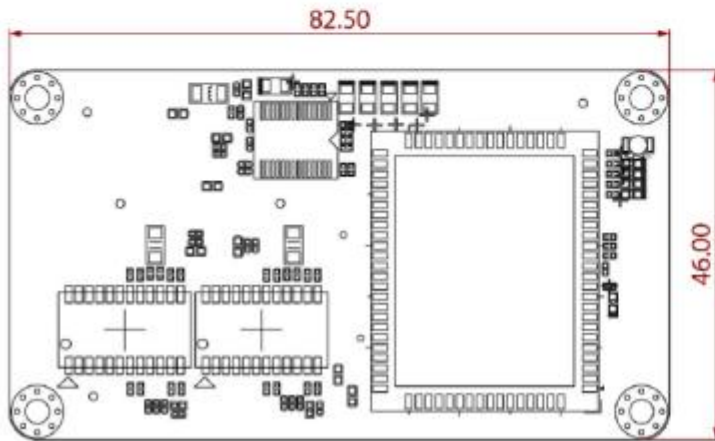
Bottom Side
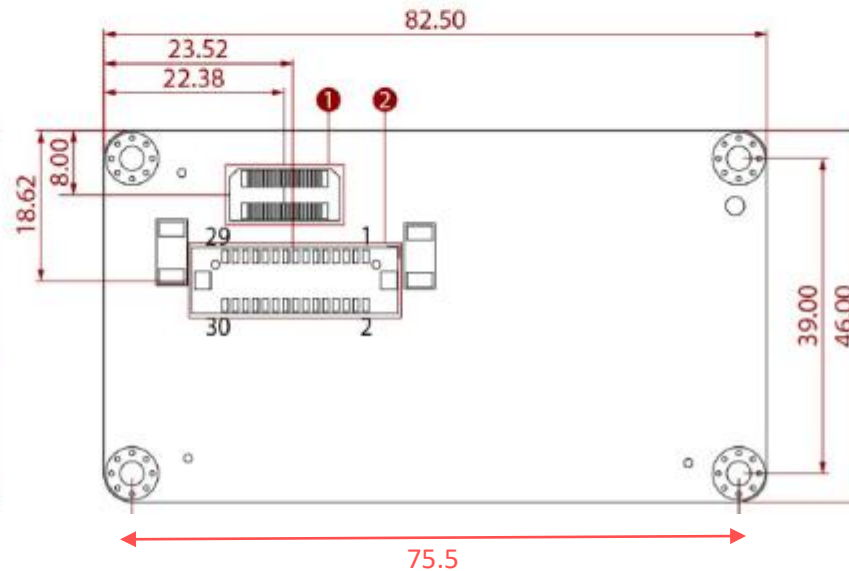
Camera

Optional Barcode Reader

L-Toggle Switch

Digital microphones

R-Toggle Switch

L-Joystick

R-Joystick

L-Button

R-Button

Speaker

Power Button

Function Buttons

Tripod Screw Hole

Panel & Capacity Touch

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LS-Roller Switch 1

LS-Roller Switch 2

HDMI & USB2.0 output

RS-Button

RS-Roller Switch

DC input

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Antennas

Camera & Flash

Metal Bracket

RR-Button

RL-Button

Wireless Module (optional)

Removeable 2nd Battery
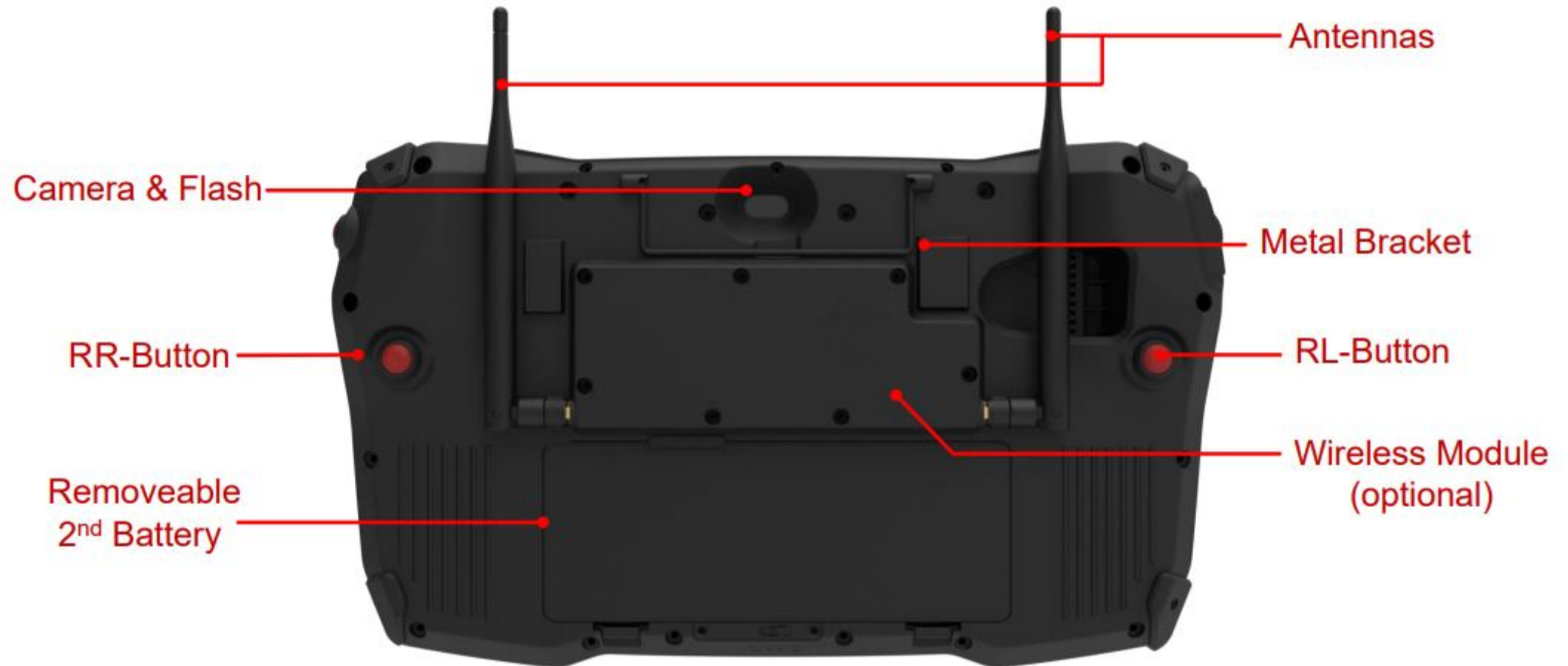
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Battery

Vehicle Charger

Battery Charger

AC-DC Adapter

Rugged Carrying Case

Shoulder Strip

Specification	G101TG
Display Specification	
Size	10.1"
Brightness	800 nits
Resolution	1920 x 1200
Contrast Ratio	800:1 (typ)
Viewing Angle	85/85/85/85
Touch	P-Cap Touch (10-point) with Anti-glare technology
System Specification	
Processor	Intel Core i5-1135G7 Processor
	Optional Intel Core i3/i7 Processor
Operating System	Windows 10 IoT LTSC, Windows 11 IoT SAC, Linux
System Memory	4GB DDR4 (up to 32GB)
Storage	128GB SSD (up to 2TB)
I/O Connectors	
Data Communication	1 x USB2.0
VIDEO Output	1 x HDMI
Power Input	1 x 19V DC input
Optional Wireless Communication	
WLAN	802.11 a/b/g/n/ac/ax
Bluetooth	Bluetooth 5.3
GNSS	GPS / GLONASS
WWAN(optional)	5G/LTE module
Others	
Internal Battery	11.4V, 3500mAh, 3S1P
External Battery	11.4V 3500mAh, 3S1p
Operating Temperature	-20~ 60C (AC); -10~ 50C (Battery)
Dimension (W x H x D)	TBD
Gross Weight	<2 Kg

Control	
Physical Channel	2x joystick
	3x Roller switch
	1x Power button
	2x 2 band toggle switch
	11x buttons
Communication Link	
Antenna	2x 3dBi Antennas
Frequency	2.4GHz
Output Power	1W, Adjustable
Data Capture Solutions	
Front Camera	2MP webcam
Rear Camera	8MP Auto-focus Camera w/ LED Flash
Barcode Reader	2D/1D Barcode Scanner (Optional)
Mechanical and Environment	
IP Rating	IP65
Drop	MIL-STD-810H Method 516.8, Produce IV, 4 feet
Shock	MIL-STD-810H Method 516.8, Procedure I
Vibration	MIL-STD-810H Method 514.8, Procedure I

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Specification	G800Q9
Display Specification	
Size	8"
Brightness	1000 nits
Resolution	1920 x 1200
Contrast Ratio	1000:1 (typ)
Viewing Angle	85/85/85/85
Touch	P-Cap Touch (10-point) with Anti-glare technology
System Specification	
Processor	Qualcomm 6490 octa-core;2.7GHz
Operating System	Android 13, Linux
System Memory	4GB LPDDR5
Storage	64GB UFS
I/O Connectors	
Data Communication	1 x USB2.0
Network port	1 x LAN
VIDEO Output	1 x HDMI
Power Input	1 x 19V DC input
Optional Wireless Communication	
WLAN	802.11 a/b/g/n/ac/ax
Bluetooth	Bluetooth 5.2
GNSS	GPS / GLONASS
WWAN(optional)	LTE module
Others	
Hotswop Battery	7.4V, 3100mAh, 2S1P
Operating Temperature	-20~ 60C (AC); -10~ 50C (Battery)
Dimension (W x H x D)	TBD
Gross Weight	<2 Kg

Control		
Physical Channel	2x joystick 2x 2 band toggle switch 10x buttons 2x speakers	
Communication Link		
Antenna	2x 3dBi Antennas	
Frequency	2.4GHz	
Output Power	1W, Adjustable	
Mechanical and Environment		
IP Rating	IPXX	
Drop	MIL-STD-810H Method 516.8, Produce IV, 4 feet	
Shock	MIL-STD-810H Method 516.8, Procedure I	
Vibration	MIL-STD-810H Method 514.8, Procedure I	

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Specification	GCS156-AD
Display Specification	
Size	15.6"
Brightness	1000 nits / 400 nits
Resolution	1920 x 1080 / 3840 x 2160
Contrast Ratio	800:1 (typ) / 1000"1 (typ)
Viewing Angle	85/85/85/85
Touch	P-Cap Touch (10-point) with Anti-glare technology or protection glass
System Specification	
Processor	Intel Core i5-1235u Processor
	Optional Intel Core i3/i7 Processor
Operating System	Windows 10 IoT LTSC, Windows 11 IoT SAC, Linux
System Memory	4GB DDR4 (up to 32GB)
Storage	128GB SSD (up to 2TB)
I/O Connectors	
Data Communication	1 x USB2.0, 1 x LAN Port
VIDEO Output	1 x HDMI
Power Input	1 x 19V DC input, Optional AC input
Optional Wireless Communication	
WLAN	802.11 a/b/g/n/ac/ax
Bluetooth	Bluetooth 5.3
GNSS	GPS / GLONASS
WWAN	5G/LTE module
Others	
Internal Battery	2x 15.4V, 5900mAh Batteries
Operating Temperature	-20~ 60C (AC); -10~ 50C (Battery)
Dimension (W x H x D)	TBD
Gross Weight	TBD

G800Q9 Product Specification

Control		
Physical Channel	1x joystick	
	3x Roller switch	
	1x Power button	
	2x 2 band toggle switch	
	5x buttons	
	1x keyboard	
Communication Link		
Antenna	2x 5dBi Antennas	
Frequency	2.4GHz	
Output Power	1W, Adjustable	
Data Capture Solutions		
Front Camera	2MP webcam	
Mechanical and Environment		
IP Rating	IP65	
Drop	MIL-STD-810H Method 516.8, Produce IV, 4 feet	
Shock	MIL-STD-810H Method 516.8, Procedure I	
Vibration	MIL-STD-810H Method 514.8, Procedure I	

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Thank you