



 Peripherals > Ground Control Station

# GHU-100 – Ground Hub Unit

The GHU-100 is the UAV Navigation's Ground Hub Unit intended to connect multiple ground devices together (PC, Datalinks, Joystick, etc) and form a single network segment. Specially designed for multi UAV or multiple GCS missions.

## Key Features:

**Multi UAV & Multi GCS Missions**



**System Ready for Complete Maritime Missions**



**High System Flexibility**



**Easy Integration on Advanced GCS Architectures**



**Increased System Robustness**

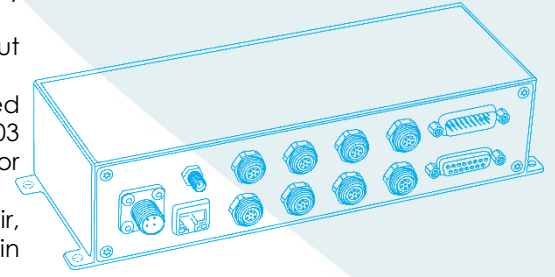


**Simple Installation and Configuration**



## Features:

- The manufacturer will be able to implement radio redundancy to ensure a quick response in case of communication failure.
- Bi-directional communications between Visionair (on the ground) and the onboard autopilot (in the air).
- Connection point in the system for the joystick to allow manual input by an external pilot.
- Internal GNSS for GCS autonomous geolocalization. The integrated GNSS receiver has been upgraded compared to what the GCS03 featured to be more accurate and robust against jamming or spoofing.
- Routing message functionality to optimize air-to-air, ground-to-air, and air-to-ground communications. This is a basic requirement in advanced missions such as multi-UAV and multi-GCS.
- Integrated NMEA input for reference source support.
- Efficient RTK corrections message dispatching from the base directly to the rover.
- Dual GNSS compass support as reference source input.
- Discrete input to command several user switches independently of Visionair.
- Visionair - GHU Config Tool for easy configuration and software upgrade.
- Up to 10 ethernet sockets for multiple ethernet peripheral connections (radios, Visionair...).
- Hardware design to conform with IP66.



## Technical Specs:

MECHANICAL / ENVIRONMENTAL	
<b>Size (mm, H x W x L)</b>	55 x 215 x 90
<b>Weight</b>	650g
<b>Enclosure Material</b>	Anodized aluminum
<b>IP Rating</b>	Designed to conform with IP66
ELECTRICAL	
<b>Voltage Supply</b>	9V - 36V DC
<b>Power consumption</b>	1.15W (without any peripheral connected)
I/O	
<b>Power Connector</b>	Binder M12-A Female cable Connector
<b>Connectivity</b>	5 x RS-232 1 x RS-422/485 1 x CAN 1 x PPM 1 x JY02 connection 12 x GPIOs 6 x ADCs 1 x Ethernet

GNSS SPECIFICATION	
<b>Receiver Type</b>	72 Channel, L1C/A, L1OF, B1I, E1B/C
<b>Constellations</b>	GPS, GLONASS, Beidou, Galileo, QZSS, SBAS
<b>Antenna</b>	Active (for best performance) or passive
<b>Antenna Connector</b>	50 Ohm SMA Female
<b>Antenna Power Supply</b>	3.2V
<b>Time to First Fix (Cold/Hot)</b>	<26s / 2 s
<b>Velocity Accuracy</b>	0.05 m/s (50% at 30 m/s)
<b>Horizontal Position Accuracy</b>	2.5 m, (CEP, 50%, 24 h static, -130 dbm, >6 SVs)
<b>Accuracy of Time Pulse Signal</b>	30 ns RMS, 60 ns 99%
<b>Frequency of Time Pulse Signal</b>	>1 pps
<b>Altitude / Velocity Limit</b>	50,000 m / 500 m/s

**UAV Navigation**  
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