axldrone

your world from above

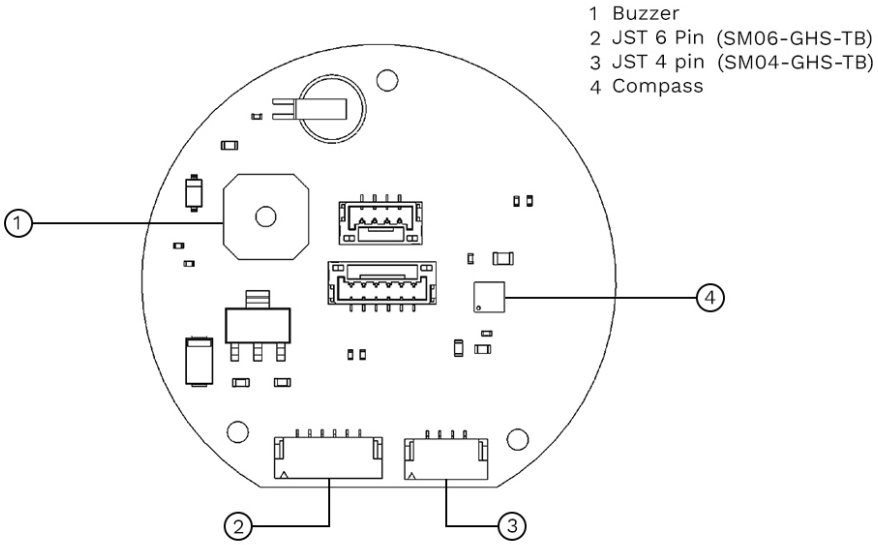
axldrone – axl Orbit GPS Module Datasheet

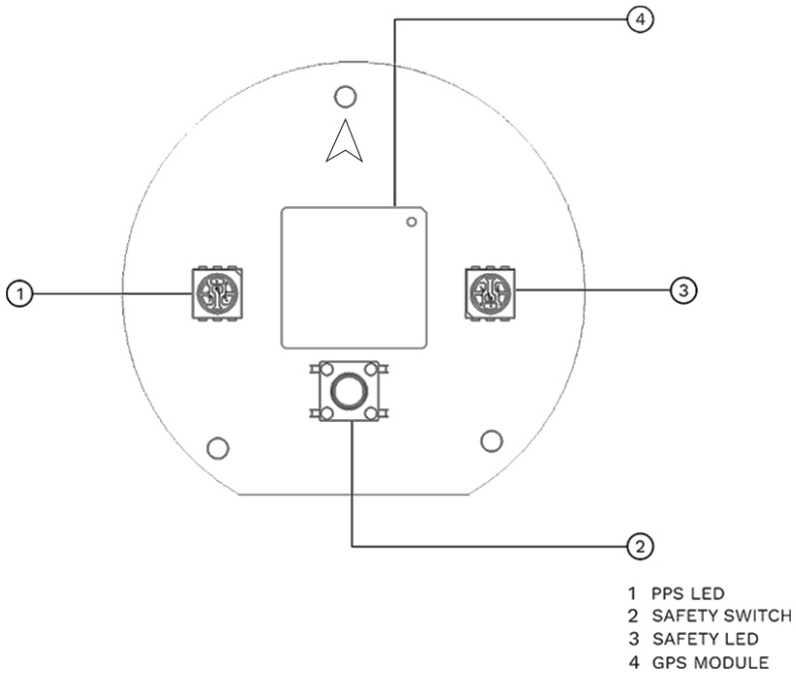
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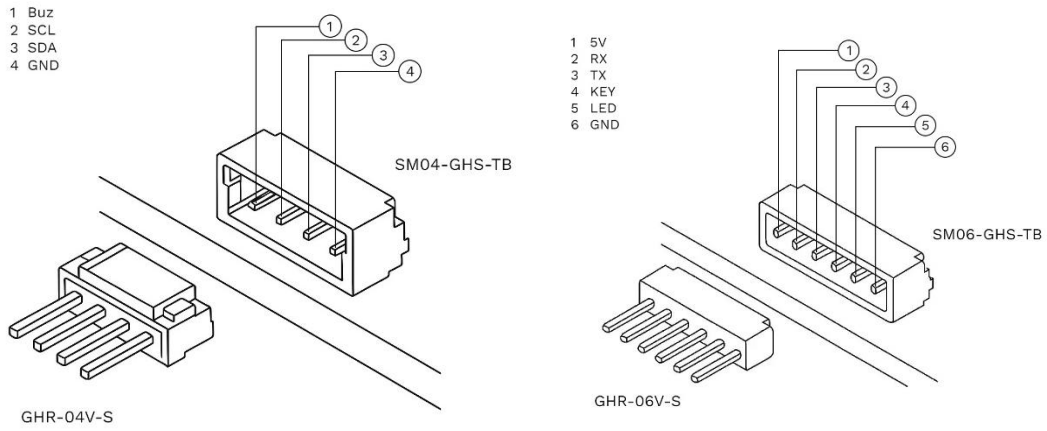
1 axldrone - axl Orbit GPS Module Datasheet

The axl Orbit GPS module is an advanced, compact GNSS receiver powered by the AXL u-blox M10 chipset. Designed for drone and robotics integration, it offers high positional accuracy, fast satellite acquisition, built-in anti-jamming and anti-spoofing capabilities, and a rugged plastic enclosure.





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1.1. GNSS Specifications

Feature	Details
GNSS Receiver	u-blox M10 Receiver (axlGPS GNSS)
GNSS System	GPS, GLONASS, Galileo, BeiDou
Satellite Bands	GPS L1 C/A, GLONASS L1OF, BeiDou B1C, Galileo E1B/C
Navigation Update Rate	4Hz
Horizontal Accuracy	1.5 m
Heading Accuracy	0.3 deg
Maximum Altitude	80,000 m
Maximum Velocity	500 m/s
Time to Fix	Cold Start: 23 sec
Sensitivity	Tracking: -165 dBm, Reacquisition: -158 dBm, Cold Start: -146 dBm, Hot Start: -157
GNSS Augmentation	SBAS

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System	
Time Pulse Accuracy	30ns (RMS)
Supporting Protocols	NMEA, UBX binary
Default Baud Rate	9600
Anti-jamming	RF interference detection and reporting
Ant-spoofing	Spoofing detection and mitigation supported

1.2. Hardware & Integration

Feature	Details
Compass	IST8310
Fix indicator LEDs	TRUE
Connector	JST-GH-06 & JST-GH-04
Low-noise 3.3V Regulator	TRUE
Input Voltage	5V
Current Consumption	200 mA
Power Consumption	~1.0 W (typical)

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1.3. Mechanical & Environmental

Feature	Details
Enclosure	Plastic
Operating Temperature	-40 degC to +85 degC
Diameter	18.7 mm

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