

High-Accuracy GNSS Active Antenna

Model: GL-111

Survey grade waterproof antenna resists unwanted signal interference, designed to support ultra-high accuracy for land and marine applications!



GL-111 integrates high performance GPS ceramic patch antenna and unique filtering features with innovative proprietary circuit design and advanced double filters, which reduce interference from out-of-band signals. The design of the ceramic antenna element also helps to reduce the multipath effect. With especially-designed rugged/IP67 water ingress enclosure, the GNSS antenna is suitable for installing in harsh environment. The high-performance active antenna is compatible with most GPS/GNSS receivers with 3~5V DC input power. GL-111 receives all existing public GNSS signals, including GPS, GLONASS, Galileo and BeiDou, which provides better positioning accuracy for a variety of GNSS applications such as AVL, vehicle navigation, aviation, and military.

Geoidsoft Inc. - Mobile GPS Online

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Features

- Substantial and environmental-resistance structure
- Proprietary antenna design provides the flexibility to reach a range of operational goals
- IP67 grade waterproof
- Supports GPS, GLONASS, Galileo, and BeiDou systems
- Multi frequencies allows for faster initialization by improving the number of satellites
- available
- Excellent multipath mitigation.

Applications

GL-111 can support any type of GNSS receivers that use the GPS L1, GLONASS G1, BeiDou B1, Galileo E1, SBAS, and L-band frequency. Its typical applications include:

- Geospatial Surveys
- AVL
- Single & Multiple frequencies RTK positioning
- Vehicle Tracking
- Security Surveillance
- Precise Guidance
- Machine Control

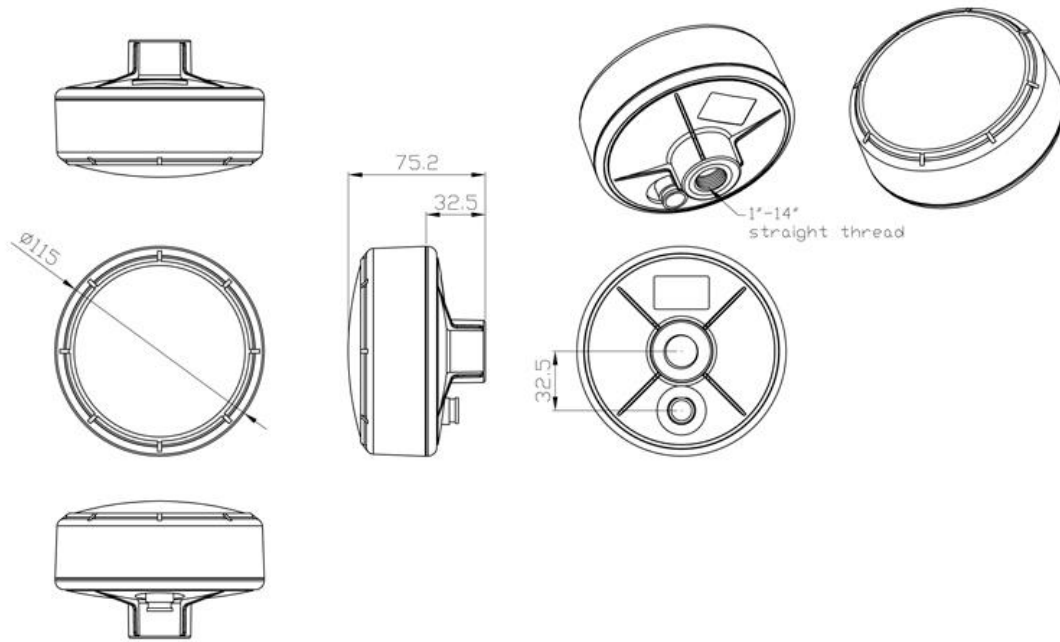
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Installation



Note: GL-111 is sold without any connection cables and installation stands. The connection cables and the stands are sold as separate accessories.

**Specifications**

Physical Condition	
Dimension	11.5cm Dia. x 7.4 cm High (4.5 inch x 2.9 inch)
Weight	279 g
Patch Antenna	
GNSS Frequency:	1559 to 1610 MHz
GNSS Reception:	GPS L1, GLONASS G1, BeiDou B1, Galileo E1, SBAS, and L-band
Polarization:	R.H.C.P. (Right Hand Circular Polarization)
Absolute Gain at Zenith:	+4 dBic typical
Axial Ratio:	3.0 dB typical
Output VSWR:	1.5 dB typical
Bandwidth@ Return Loss ≤ -10 dB:	≥ 51 MHz
LNA (Low noise Amplifier)	
Frequency:	1.559 to 1.610GHz
LNA Gain:	31 dB typical
Noise Figure:	2.4 dB Max.
Supply Voltage:	3 ~ 5 V DC
Current Consumption:	6.9 mA typical
Output VSWR:	2.0 Max.
Output Impedance:	50 ohm
Cable and Connector	
Output Impedance:	50 ohm
VSWR:	2.0 Max.
Cable:	RG-58 (3-5 meters is recommended)
Connector:	TNC (Straight Female)
Mount:	1"-14" female thread (Option:5/8 inch female thread)
Mechanical Enclosure:	PC(2807)+ PBT(B4520) UL
Environmental Conditions	
Operating Temperature:	-40°C~+80°C
Storage Temperature:	-40°C ~+85°C
Relative Humidity:	+40±2 °C, 90~95%R.H
Enclosure Rating:	IP67

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