

# **GNSS mini antenna series**

## Ultra lightweight antenna for multi-frequency GNSS reception

GNSS mini antenna series are ultra lightweight circularly polarized antennas for applications demanding a miniature solution. These multi-band, multi-frequency antennas offers Global Navigation Satellite System (GNSS) coverage in the GPS, GLONASS, Galileo and BeiDou bands. For best performance, the GNSS mini antenna should be mounted to a metal ground plane to enhance its low frequency reception.

The GNSS mini antennas are available in passive and active (amplified) configurations. The active circuitry is designed to support a wide range of input voltages with ultra low current consumption for long battery life and low fuel consumption. The amplifier design includes dual-stage filtering for excellent performance, even with nearby interference sources. The passive design is ideal for installations where the antenna is located close to the receiver and eliminates any need to power the antenna.



#### Features

- Easy installation
- Single connector for antenna output and DC power input

#### Benefits

- Rugged yet lightweight for easier portability and longer airborne time on station
- Low power consumption with only 25 mA current draw and a wide input voltage compatibility range
- Multi-frequency GNSS capable including GPS M-Code & P(Y) signals and Galileo with Public Regulated Service (PRS) for high accuracy positioning, navigation and timing

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#### GNSS Mini Antenna Series Product Sheet

Electrical	
<b>Signal support</b> GPS Galileo	L1, L2, L5 C/A, P(Y), M-Code E1, E5a, E5b
GLONASS BeiDou NavIC L-Band corrections	PRS L1, L2 B1, B2, B2a, B2b L5
Passbands Upper passband Lower passband	1539 to 1610 MHz 1164 to 1252 MHz
	50 ohms
Polarization	RHCP
Environmental	
Temperature	-55°C to +85°C
Altitude	40,000 ft
Random vibration	20 G <sub>rms</sub>
Typical LNA performance	
<b>LNA gain</b> A option A15 option P option	28 dB ±3 dB 15 dB ±3 dB Passive
LNA noise figure	3.5 dB
LNA P1dB out	+11 dBm
Power handling	1 Watt CW
Group delay ripple	<8 ns
Differential propagation delay	<3 ns

Physical	
Dimensions	
1.2G	1.25" x 1.45" x 0.55"
2G	Ø2.25" x 0.69"
3G	Ø3.12" x 0.74"
4G	1.90" x 2.75" x 0.67"
Weight (typical)	
1.2G	1.42 oz (40 g)
2G	3.2 oz (91 g)
3G	5.4 oz (153 g)
4G	3.6 oz (103 g)
Power	+2.7 to +15.0 VDC
	25 mA

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