

# GPS/GLONASS High Performance Asset Tracking & Time Sync Micro Helix Antenna

PCTEL's GEO-GNSS-AC-S1 is a robust, active, high performance antenna covering both GPS L1 and GLONASS L1 frequency bands. PCTEL's proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection. This antenna is ideal for performance in critical asset tracking and network timing synchronization applications.



GEO-GNSS-AC-S1

## Applications

- Defense Radio Communications
- Handheld Devices
- Body Worn Asset Tracking
- Public Safety Emergency Responders
- Industrial Network Synchronization

## Features

- GPS L1 & GLONASS L1 Frequencies
- Custom-Tuned Micro Helix Element
- High Rejection Filtering
- 26.5 dB Gain
- IP67\* Ingress Protection

## Antenna Element Electrical Specifications

Part Number	Frequency Band	Nominal Gain	Polarization	Nominal Impedance
GEO-GNSS-AC-S1	1574-1610 MHz	-2.0 dBic @ GPS L1 -2.5 dBic @ GLONASS L1	Right Hand Circular	50 ohms

## Mechanical Specifications

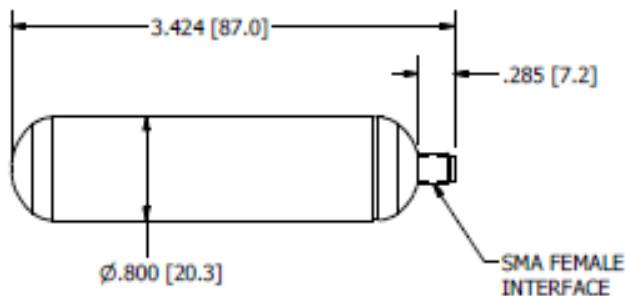
Antenna Dimensions (dia x height)	Weight	Radome Material	Connector
0.8 x 3.4 inches (20.3 x 87.0 mm)	1.23 oz (35 g)	ABS (Black)	SMA Female

## Environmental Specifications

Temperature Range	Ingress Protection
-40° C to +85° C operating	IP67*

## Low Noise Amplifier Specifications

Frequency Band: 1574-1610 MHz
Amplifier Gain: @ 3.0 VDC: 26.5 dB (typical)
Noise Figure: < 2.0 dB (typical)
Out-of-band Rejection: f0 = 1586 MHz f0 ± 50 MHz: ≥ 40 dBc
DC Voltage: 2.5-5.5 V (operating) ≤ 12.0 V (survivability)
DC Current: < 20 mA (typical)



\* When installed according to the manufacturer's installation instructions.



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