

Dual Constellation, Dual Frequency Geodetic Antenna



- Featuring Topcon's High-performance Fence Antenna™ Technology
- Dual Constellation, Dual Frequency Geodetic Antenna
- L-Band Compatible
- Precision Tuned and Micro-centered Design
- Rugged Enclosure with High Shock and Vibration Tolerance



PG-S1 Dual Frequency, Dual Constellation Geodetic Antenna

The PG-S1 is a newly designed Topcon geodetic antenna built around patented Topcon Fence Antenna™ Technology. This high precision micro-centered antenna with integrated ground plane provides excellent tracking sensitivity and multipath rejection for all surveying and construction applications. The PG-S1 antenna supports L1/L2 frequencies from GPS and GLONASS satellite constellations, as well as L-Band frequencies. The PG-S1 can be paired with any Topcon modular or handheld GNSS receiver to provide a high performance dual-frequency RTK system.

The PG-S1 antenna system offers IP67 dust and water resistance as well as superior level of vibration and shock tolerance (IEC 60068-2). With its compact and ultra-rugged design, the PG-S1 is the most robust geodetic antenna in the market today.

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7400 National Drive • Livermore • CA 94550
 (925) 245-8300

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SPECIFICATIONS

Operating Frequency Range

L1 GPS/GLONASS	1586.5 ± 25MHz
L2 GPS/GLONASS	1236 ± 20 MHz
L-Band	1535 ± 10 MHz

Out of Band Rejection

L1	± 100 MHz -30 dBc (typical)
L2	± 200 MHz -60 dBc (typical)

Gain, Noise Figure and VSWR

LNA Gain	33 dB (typical)
Gain at Zenith (90°)	GPS L1 5.5 dBic (min) GPS L2 5.5 dBic (min) GLONASS L1 4.5 dBic (min) GLONASS L2 4.5 dBic (min) L-Band 3 dBic (min)
Noise Figure	1.5 dB (typical)
VSWR	≤ 2.0:1
Nominal Impedance	50 Ohms

Connector and Mounting

Antenna Connector	TNC
Mount	5/8-11 UNC-2B thread

Physical Characteristics

Dimension (W x H x L)	141.6 x 141.6 mm x 54.2 mm
Diameter with Ground Plane	200 mm
Weight without ground plane	430 g
Weight with ground plane	615 g
Centering	< 1 mm, micro-centered

Power

Input Voltage Range	3-18 VDC. Reverse Polarity Protected
Power Consumption	55 mA (typical)

Environmental

Enclosure	Aluminum with Plastic Radome
Operating Temperature	-50°C to 85°C
Storage Temperature	-55°C to 85°C
Waterproof & Dust Rating	IP67
Random Vibration	IEC 60068-2-34, Test Fd
Sinusoidal Vibration	IEC 60068-2-6, Test Fc
Shock	IEC 60068-2-29 Test Ea
Bump	IEC 60068-2-29 Test Eb
Drop	2m pole drop to concrete

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