

# PG-F1



## GNSS Geodetic Antenna

The PG-F1 is a Topcon full-wave antenna that provides reliable solutions by tracking GPS, GLONASS, BeiDou, Galileo, QZSS, SBAS and L-Band satellites.

This high precision antenna with integrated ground plane provides excellent tracking sensitivity and multipath rejection for all surveying and construction applications.

The PG-F1 antenna supports a wide range of GNSS constellations. Paired with any Topcon modular or handheld GNSS receiver provides a high performance RTK system.

The PG-Fa antenna system offers IP6X dust and IPX7 water resistance as well as superior level or vibration and shock tolerance (IEC 60068-2). With its compact and ultra-rugged design, the PG-F1 is one of the most versatile field antennas in the market today.

### OPERATING FREQUENCY RANGE

Lower band	1230 ± 70 MHz (L5, E5A, E5B, E3, L2, G2, E4, E6)
Upper band	1565 ± 50 MHz (E2, L1, E1, G1, SBAS)

### OUT OF BAND REJECTION

Lower band (1230 MHz ± 200 MHz)	-30 dBc (typical)
Upper band (1565 MHz ± 150 MHz)	-30 dBc (typical)

### OTHER BANDS

f < 1000 MHz	-50 dBc (typical)
f < 1800 MHz	-50 dBc (typical)

### GAIN, NOISE FIGURE AND VSWR

LNA Gain	35 dB (typical)
Gain at Zenith (90°)	5.5 dBic (minimum)
Gain Roll-Off (from Zenith to Horizon)	12-13 dB
Noise Figure	1.5 dB (typical)
L1-L2 Differential Propagation Delay	2 ns (maximum)
Nominal Impedance	50 Ohms

### ENVIRONMENTAL

Temperature	Operating: -50°C to 85°C Storage: -50°C to 85°C
Water/Dust Rating	IP67
Random Vibration	Method 514.6, Category 4
Humidity	95%
Shock/Bump	IEC 60068-2-29 Test Eb
Drop	2 m pole drop to concrete
RoHS Compliant	Yes

### OTHER BANDS

Input Voltage	3 to 15 VDC
Power Consumption	60 mA (typical)

### PHYSICAL

Dimensions (w x h x l)	141.6 x 67.3 x 141.6 mm (without Ground Plane)
Diameter	200 mm (with Ground Plane) 179.4 mm (without Ground Plane)
Weight	675 g (with Ground Plane) 490 g (without Ground Plane)
Antenna Connector	TNC female
Mount	5/8-11 UNC-2B thread