

SPGA Rover Antenna

Datasheet



Precise and Durable

Features

- Optimized for GNSS base and rover applications
- Robust low-elevation satellite tracking
- Minimized multipath
- Sub-millimeter phase center repeatability
- Iridium and Japanese LTE filtering

SPGA Rover Antenna

PRECISE AND DURABLE WITH SUB-MILLIMETER ACCURACY

The top of the range Spectra Precision SPGA Rover external GNSS antenna contains advanced technology for multipath reduction, outstanding low elevation satellite tracking and sub-millimeter phase center stability.

COMPREHENSIVE GNSS SUPPORT

SPGA Rover GNSS antenna offers full support for current and near-future GNSS signals including GPS, GLONASS, Galileo, BeiDou, QZSS, IRNSS, Trimble RTX and SBAS. Combined with rugged durability, the Spectra Precision SPGA Rover GNSS antenna is a long term investment.

SPGA ROVER

The SPGA Rover is a high performance lightweight GNSS rover antenna optimized for precision RTK applications. The SPGA Rover GNSS antenna is typically used in roving applications, but can also be used in base applications. It minimizes multipath and offers robust low-elevation tracking and sub-millimeter phase center repeatability.

- Comprehensive GNSS support, including GPS Modernization signals, GLONASS, Galileo, BeiDou, QZSS, and IRNSS
- Robust low-elevation satellite tracking
- Minimized multipath
- Sub-millimeter phase center repeatability
- Pair with the Spectra Precision SP90m GNSS receiver in either a base station or rover configuration
- Additional Iridium and Japanese LTE filtering
- High signal gain (50 dB) for reliable tracking
- 5/8" - 11 stainless steel mount point

SPGA Rover Technical Specifications

- Broad GNSS Frequency Tracking Band, including:
 - GPS: L1, L2, L5
 - GLONASS: L1, L2, L3
 - Galileo: E1, E2, E5, E6
 - BeiDou: B1, B2, B3
 - IRNSS: L5
 - SBAS: WAAS, EGNOS, QZSS, Gagan, MSAS, and Trimble RTX
- Quality signal tracking, even below 5 degrees elevation
- Four point antenna feed for phase center stability and enhanced polarization
- TNC female signal connector
- Small cross-sectional area to reduce wind loading
- 5/8" - 11 female threaded stainless steel mount point
- Powered by GNSS receiver via coaxial cable
- Advanced LNA (low noise amplifier) to reduce jamming by high power out-of-band transmitters with 50 dB signal gain for reliable tracking in challenging environments and long cable runs
- Additional iridium filtering above 1616 MHz allows antenna to be used as close as 20 m of iridium transmitter
- Additional Japanese filtering below 1510 MHz allows antenna to be used as close as 100 m of Japanese LTE cell tower

ENVIRONMENTAL

- Operating Temperature: -40 °C to +75 °C (-40 °F to +167 °F)
- Humidity: 100% humidity proof, fully sealed
- Shock and Vibration
 - Vibrations: MIL-STD-810-F on each axis
 - Shock: MIL-STD-810-F 40g 11ms
 - Drop: 2m (6.56 ft) high on concrete
- Compliance: RoHS

PHYSICAL

- SPGA Rover Dimensions: 16.5 cm diameter x 7.6 cm height (6.5 in diameter x 3 in height)

ELECTRICAL

- Input Voltage: 3.5 V DC to 20 V DC
- Narrow Band Mode (1555 to 1559 MHz): >6.4 V DC to 9 V DC
- Wide Band Mode (1525 to 1559 MHz): 3.5 V DC to 6.0 V DC and 9.4 V DC to 20 V DC
- Input Current: 125 mA
- Signal Gain: 50 dB



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