

Global GNSS Timing Reference Antenna

GNSS Systems Covered: GPS L1, GALILEO E1, GLONASS L1 & BEIDOU B1 (COMPASS)

PCTEL's GNSS1-TMG-26N global GNSS timing reference antennas are specifically designed for long-lasting, trouble-free deployments in congested cell-site applications. The low noise, high gain amplifier is well suited to address attenuation issues associated with applications requiring longer cable runs.

The proprietary quadrifilar helix design, coupled with multi-stage filtering provides superior out-of-band rejection and lower elevation pattern performance than traditional patch antennas. This multi-band antenna covers GPS L1, GALILEO E1, GLONASS L1 as well as BEIDOU B1 (COMPASS) frequencies.

Their unique radome shape sheds water and ice, while eliminating problems associated with bird perching. PCTEL offers an array of compatible mounting configurations. Custom models or site kits options are also available.

This antenna is made of materials that fully comply with provisions stipulated by EU directives RoHS 2002/95/EC. The antenna features transient voltage suppression as well as protection from reverse polarity and electrostatic discharge (ESD).



GNSS1-TMG-26N (Top)
GPS-TMG-MNT (Bottom left)
GPS-TMG-LMNT (Bottom right)

STANDARD CONFIGURATION

| Model | Connector | Mount | Radome |
|-----------------|-----------------------------|---|--------------|
| GNSS1-TMG-26N | N Female (one - bottom fed) | Does not include mounting hardware. | Color: White |
| GNSS1-TMG-26NMS | | Includes universal mounting hardware consisting of collar (GPS-TMG-MNT) and pipe clamp (GPS-TMG-LMNT) | |
| GNSS1-TMG-26NCM | | Includes collar mount (GPS-TMG-MNT) | |
| GNSS1-TMG-26NCS | | Includes economy collar marine mount (GPS-TMG-MRNMNT) | |

ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Model | Frequency Range | LNA Gain | Element Gain | Out of Band Rejection | VSWR |
|---------------|-----------------|---|---------------|--|---------|
| GNSS1-TMG-26N | 1554-1615 MHz | 26.5 dB \pm 3 dB @ GPS L1/GALILEO E1 24.5 dB \pm 3 dB @ GLONASS L1/BEIDOU B1 | \geq 3 dBic | \geq -45 dB @ $f \leq$ 1530 MHz \geq -45 dB @ $f \geq$ 1660 MHz | < 2.0:1 |

ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued

| Model | Noise Figure | Current Draw | DC Voltage | Nominal Impedance | Polarization |
|---------------|---|--------------|--|-------------------|---------------------|
| GNSS1-TMG-26N | < 2.5 dB @ +25°C including pre-selector | < 35 mA | 3.3-9.0 V (operating) \leq 28.0 V (survivability) | 50 ohms | Right hand circular |

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MECHANICAL SPECIFICATIONS

| Model | Dimensions | Weight | Housing Material |
|---------------|---------------------------------|------------------|------------------|
| GNSS1-TMG-26N | 5.0" H x 3.2" D (126 H x 81 mm) | 0.6 lbs (0.3 kg) | ASA |

ENVIRONMENTAL SPECIFICATIONS

| Model | Temperature Range | Humidity |
|---------------|-------------------|----------|
| GNSS1-TMG-26N | -40°C to +85°C | 95% |