applications requiring longer cable runs.

**GPSGL-TMG-SPI-40NCB** 



# 40 dB GPS L1/GLONASS L1/GALILEO E1 Timing **Antenna with Integrated Lightning Protection**

The GPSGL-TMG-SPI-40NCB timing reference antennas are specifically designed for long-lasting, trouble-free deployments in congested cell-site applications. The low

The proprietary quadrifiliar 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 L1 as well as GLONASS E1 frequencies.

noise, high gain amplifier is well suited to address attenuation issues associated with

Their unique radome shape sheds water and ice, while eliminating problems associated with bird perching. The antenna comes with surge compliant mounting that addresses industry grounding requirements. Custom models or site kit 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 provides integrated, on-board lightning protection capability that alleviates the need for downstream, in-line surge suppressors. The antenna also features ESD, reverse polarity protection and transit voltage suppression.



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#### STANDARD CONFIGURATION

| Model               | Connector                   | Mount   | Radome       |
|---------------------|-----------------------------|---|--------------|
| GPSGL-TMG-SPI-40NCB | N Female (one - bottom fed) | Fits pipes of 1"-1.45" (25-37 mm) maximum diameter. Medium duty mount (GPS-TMG-MMD), grounding screw, and lug nut included. | Color: White |

#### **ELECTRICAL SPECIFICATIONS - GNSS ANTENNA**

| Frequency<br>Range | LNA Gain  | Element Gain | Polarization        | Out of Band Rejection                              |
|--------------------|---|--------------|---------------------|--|
| 1590 ± 30 MHz      | 40 dB ± 4 dB @ GPS L1 & GALILEO E1<br>38 dB ± 4 dB @ GLONASS L1 | ≥ 3 dBic     | Right hand circular | ≥ -60 dB @ f ≤ 1530 MHz<br>≥ -60 dB @ f ≥ 1660 MHz |

## **ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued**

| Noise Figure   | Current Draw | DC Voltage  | VSWR    | Nominal Impedance |
|--|--------------|---|---------|-------------------|
| < 2.5 dB @ +25°C including<br>pre-selector (maximum) | < 40 mA      | 3.3-9.0 V (operating)<br>≤ 28.0 V (survivability) | < 2.0:1 | 50 ohms           |

### **MECHANICAL & ENVIRONMENTAL SPECIFICATIONS**

| Dimensions                         | Weight                | Housing Material | Lightning Protection    | Temperature Range | Humidity |
|------------------------------------|-----------------------|------------------|-------------------------|-------------------|----------|
| 7.25" H x 3.20" D<br>(184 x 81 mm) | 0.75 lbs<br>(0.34 kg) | ASA              | Per EN61000-4-5 Level 4 | -40°C to +85°C    | 95%      |