# GPS-TMG-40N, 40 dB Internal Amplifier

The GPS-TMG-40 timing reference antennas are specifically designed for longlasting, trouble-free deployments in congested cell-site applications. Their 40 dB high gain amplifier is well suited to address attenuation issues associated with applications requiring longer cable runs.

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.

Their unique radome shape sheds water and ice, while eliminating problems associated with bird perching. The antenna may be purchased by itself or with pipe mounting hardware. 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.

This antenna also features ESD, reverse polarity protection and transit voltage suppression.

# **Antenna Element Electrical Specifications**

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization	Connector
1575.42 +/- 10 MHz	3.5 dBic	50 ohms	≤ 1.5:1	Right hand circular	N, female (one - bottom fed)

### **Mechanical Specifications**

Antenna	Shipping	Antenna	Shipping	Radome
Dimensions	Dimensions	Weight	Weight	Color
5.0" H x 3.2" D	7.5" L x 4.4" W x 3.8" D	0.6 lbs	1.9 lbs	White
(126 H x 81 mm)	(190 x 112 x 96 mm)	(0.3 kg)	(0.9 kg)	

## **Environmental Specifications**

Temperature Range	Humidity
- 40°C to + 85°C	95%

#### Mounting

All mounting options fit pipes of 1"-1.45" (25 mm-37 mm) maximum diameter.

Model	Options
GPS-TMG-40N	Does not include mounting hardware.
GPS-TMG-40NMS	Includes universal mounting hardware consisting of collar (GPS-TMG-MNT) and pipe clamp (GPS-TMG-LMNT).
GPS-TMG-40NCS	Includes economy collar mount (GPS-TMG-MRNMNT).



GPS-TMG-40N



GPS-TMG-LMNT

**GPS-TMG-MRNMNT** 



### Low Noise Amplifier **Specifications**

Frequency Band (MHz): 1575.42 +/- 12 MHz
Amplifier Gain: 40 dB +/- 4 dB
Nominal Impedance: 50 ohms
Output VSWR: < 2.0:1
Maximum Noise Figure: < 2.5 dB @ +25°C
DC Voltage: 3.3-9.0 V (regulated)
DC Current: ≤ 40 mA
Filtering: 3 stage filtering including pre-selector
Bandwidth: ≥ 60 dB @ +/- 50 MHz off center frequency