GPS-TMG-50N, 50 dB Internal Amplifier

The GPS-TMG-50N timing reference antennas are specifically designed for long-lasting, trouble-free deployments in congested cell-site applications.

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 can be purchased by itself, or with pipe mounting hardware. Custom models or site kit options are also available.

Antenna Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization	Connector
1575.42 +/- 10 MHz (GPS L1)	3.5 dBic	50 ohms	≤ 1.5:1	Right hand circular	N, female (one - bottom fed)

Mechanical Specifications

Antenna Dimensions	Shipping Dimensions	Antenna Weight	Shipping Weight	Radome Color
3.7” H x 3.1” D (94 H x 78 mm)	7.5” L x 4.4” W x 3.8” D (190 x 112 x 96 mm)	.36 lbs (.16 kg)	1.9 lbs (0.9 kg)	Off-white

Environmental Specifications

Temperature Range	Humidity
-40˚C to +85˚C	Up to 95%

Mounting

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

Model	Options
GPS-TMG-50N	Does not include mounting hardware.
GPS-TMG-50NCS	Includes matching white plastic mounting base.
GPS-TMG-50NMS	Includes standard mounting hardware (collar bracket, L-bracket and pipe clamps).

MAXRAD

Low Noise Amplifier Specifications

Frequency Band (MHz): 1575.42 ±10 MHz 3 dB bandwidth
Amplifier Gain: 50 dB ± 3 dB
Nominal Impedance: 50 ohms
Output VSWR: < 2.0:1
Noise Figure: ≤ 2.0 dB @ 25˚C 2.5 dB maximum over temperature range
DC Voltage: 5 V Nominal, 3.5-28 V operating
DC Current: 37 mA typical. 45 mA max @ 5V
Filtering: 3 filters with pre-selector
Out-of-Band Rejection: -60 dB @ ±50 MHz off center
ESD and Transit Voltage Protection: input/output