PASTERNACK
an INFINITE brand

# 32 dBi Timing GPS/GLNSS Antenna 1,574-1,610 MHz TNC Connector

## Antennas Technical Data Sheet PE51TM1000

## Features

- High Selectivity Dual Filter RF Architecture
- Eliminates High Power RFI Operating within Multi-Located Base Station Environment
- Impact Resistant ASA Radome
- Rugged Die-Cast Aluminum Base
- Integrated Bulkhead, TNC Jack
- IP67 Rated
- ¾" NPT and 1"-14 Marine Mount Compatible
- UV Resistant/Cool Gray for Reduced Visibility

## Applications

- Network time Synchronization
- Precision frequency reference

### Description

The PE51TM100 GPS/GLNSS Timing Antenna is a professional grade product used for advanced time and frequency system applications. Housed in an IP67 rated high impact ASA and die cast aluminum housing it's suitable for all outdoor and marine environments.

### Configuration

| | |
|---|---|
| Design | GPS/GLNSS |
| Application Band | L1 |
| Band Type | Single |
| DC Injection | Coaxial feed cable center conductor |
| Connector Type | TNC Jack |
| Housing Material and Plating | Gray |

### Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|---|---|---|---|---|
| Frequency Range (GPS/GLNSS (L1)) | 1.574 | | 1.61 | GHz |
| Output VSWR | | | 2:1 | |
| Impedance | | 50 | | Ohms |
| Gain | | 32 | | dBi |
| Gain Variation | | ±3 | | dBi |
| Noise Figure | | 3.1 | 3.5 | dB |
| Out Of Band Rejection | | | 70 | dB |
| Operating DC Voltage | 2.7 | | 5.5 | Volts |
| Current | | 7 | 15 | mA |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 32 dBi Timing GPS/GLNSS Antenna 1,574-1,610 MHz TNC Connector PE51TM1000

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
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**INSTALLATION INSTRUCTIONS**

**PE51TM1000**

**Timing Antenna**

**GPS, GPS/GLNSS**

*Congratulations on your selection of another quality antenna product from Pasternack*

*Pasternack is committed to continually provide the greatest antenna VALUE for your wireless applications.*

1. **Model:** Remove the RF Connector dust cap and verify product description and output connector matches the system/cabling requirements.

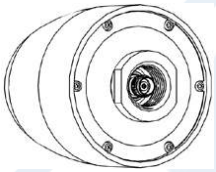
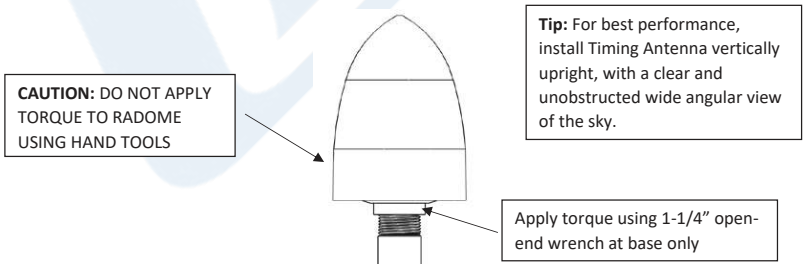


Fig.1

2. **Installation: Warning!** **Installation of this product near power lines is dangerous.**

**For your safety, follow the enclosed installation directions.**

A. Timing Antenna installs directly to a vertically upright, standard ¾" NPT pipe or 1"-14 Marine Mount thread. No additional hardware required to install or mount.
B. The Timing Antenna is powered through the center conductor of the coaxial feed cable (not supplied). Verify the output voltage on the GPS or GPS/GLNSS receiver provides 2.7-5.5 VDC to the antenna.
C. Route coaxial cable with appropriate mating connector through the mounting pipe and out the open end. Always keep coaxial feed cable length to a minimum. **Note:** Coaxial feed cable should not exceed 15 dB total insertion loss.
D. Couple the RF coaxial cable to the output connector on the Timing Antenna. Verify a secure connection. Leave the opposite side end of the cable uncoupled and free to spin, until the antenna is completely installed to the pipe.
E. Attach the Timing Antenna (with cable) to the end of the pipe by threading the antenna onto the pipe end. Continue to manually thread and secure with a firm hand grip.
F. **Applying Torque:** If required, the Timing Antenna includes an integrated wrench flat to apply additional torque using a standard 1-1/4" open-end wrench. **Note:** Apply torque carefully to avoid damage to the aluminum base. **CAUTION:** To avoid potential damage, **DO NOT APPLY TORQUE TO THE RADOME** using strap wrench or similar tool.
G. Route the coaxial cable and attach to the GPS/GLNSS receiver. Verify performance.

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### Mechanical Specifications

| | |
|---|---|
| Housing Plating/Color | Gray |
| Mounting Application | ¾ in. NPT Pipe & 1”-14 Marine Mount |
| Base Diameter | 3.25 in [82.55 mm] |
| Height | 4.88 in [123.95 mm] |
| Weight | 11.84 lbs [5.37 kg] |

### Environmental Specifications

**Temperature**

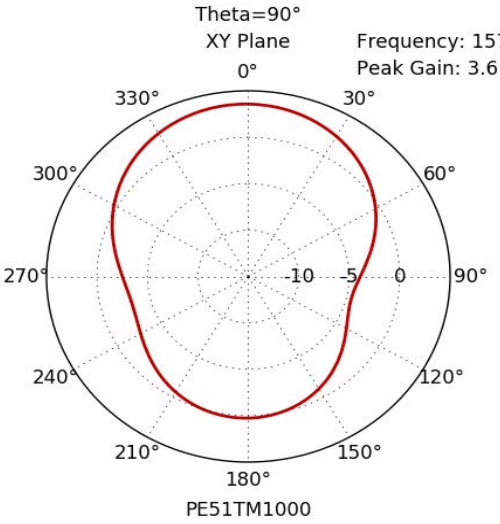
| | |
|---|---|
| Operating Range | -40 to +85 deg C |
| Wind Loading | 150 MPH [241.4 KPH] |
| Humidity | 95% |
| Corrosion | Salt Fog |
| ESD Protection | 15 kV |
| ESD Protection | IP67 |

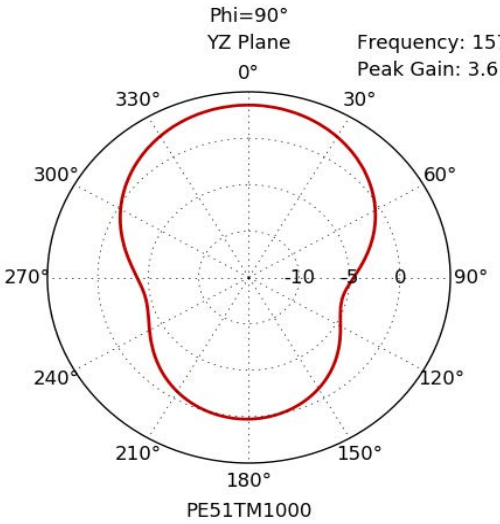
### Compliance Certifications (see product page for current document)

### Plotted and Other Data

Notes:

**Typical Radiation Pattern**

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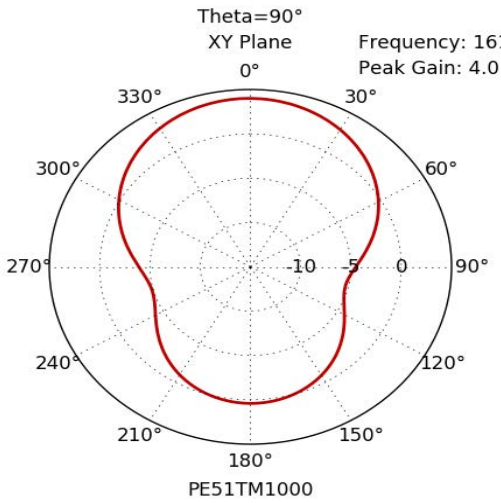


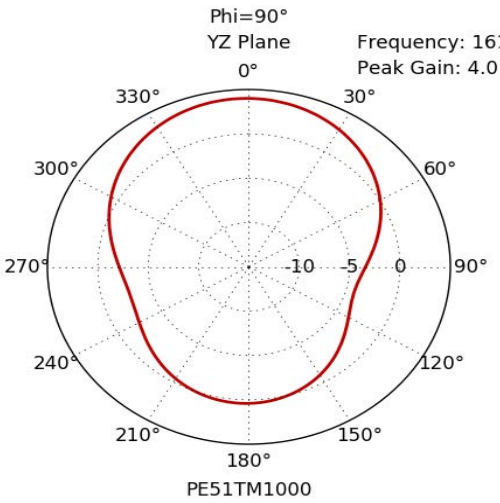


32 dBi Timing GPS/GLNSS Antenna 1,574-1,610 MHz TNC Connector from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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URL: https://www.pasternack.com/single-antenna-1.574-1.61-ghz-32-dbi-gain-tnc-pe51tm1000-p.aspx



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# PE51TM1000 CAD Drawing

32 dBi Timing GPS/GLNSS Antenna 1,574-1,610 MHz TNC Connector