



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

### Antennas Technical Data Sheet

PE51TM1001

#### 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
- Mounts to standard pipe up to 1-1/2"
- High grade stainless steel and Dacron plated steel mounting clamps

#### Applications

- Network Time Synchronization
- Precision frequency reference

#### Description

The PE51TM1001 GPS/GLNSS timing antenna is a professional grade product used for advanced time and frequency system applications. Housed in an IP-67 rated high impact ASA and die cast aluminum housing it's suitable for all outdoor and marine environments. It includes a set stainless steel and Dacron plated mounting clamps.

#### 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/GLONASS (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 Mount Kit and Timing GPS/GLNSS Antenna 1,574-1,610 MHz TNC Connector PE51TM1001](#)



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INSTALLATION INSTRUCTIONS

PE51TM1001

Timing Antenna with Mounting Kit

GPS, GPS/GLNSS (L1)

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

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

- A. Timing Antenna installs to the mast using the included 6" long 3/4" NPT pipe and mounting bracket.
- 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. Attach U-bolt mounting brackets to 3/4" NPT as shown below using washers, locking washers, and nuts. Brackets can either be assembled around the mast, or preassembled and installed on the mast from the top.
- H. Route the coaxial cable and attach to the GPS/GLNSS receiver. Verify performance.

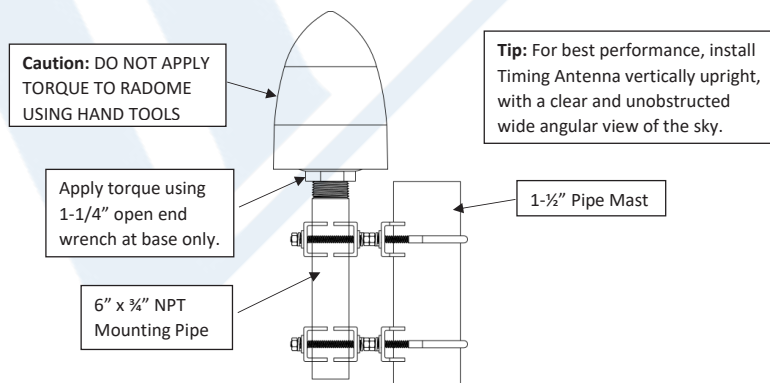


Fig. 1

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**Mechanical Specifications**

Housing Plating/Color	Gray
Mounting Application	3/4 in. NPT 316 SS Pipe
Base Diameter	3.5 in [88.9 mm]
Height	10.38 in [263.65 mm]
Weight	37.17 lbs [16.86 kg]

**Environmental Specifications**

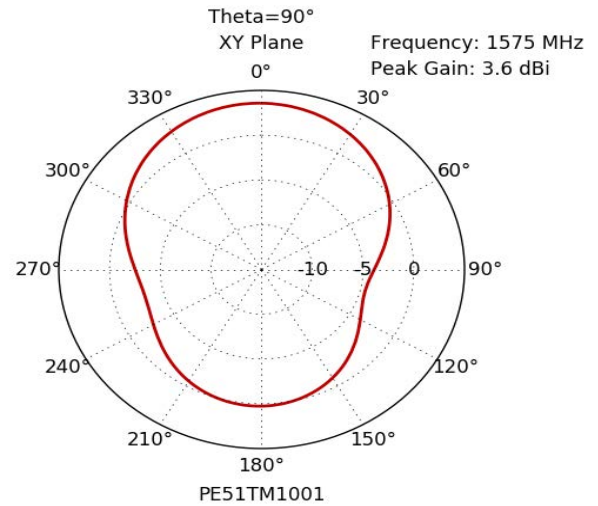
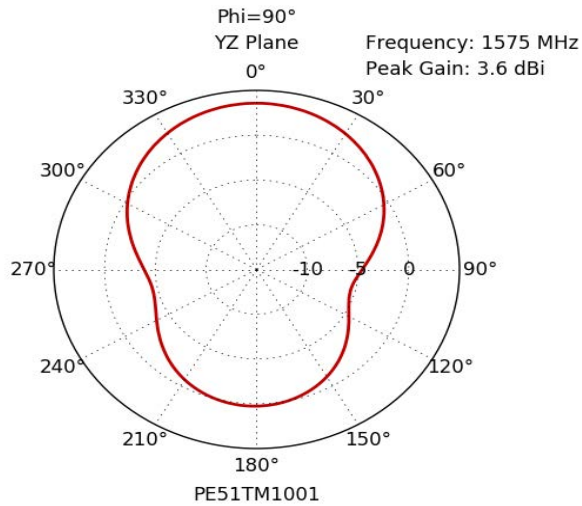
<b>Temperature</b>	
Operating Range	-40 to +85 deg C
Wind Loading	150 MPH [241.4 KPH]
Humidity	95%
Corrosion	Salt Fog
ESD Protection	IP67

**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

**Typical Radiation Pattern**



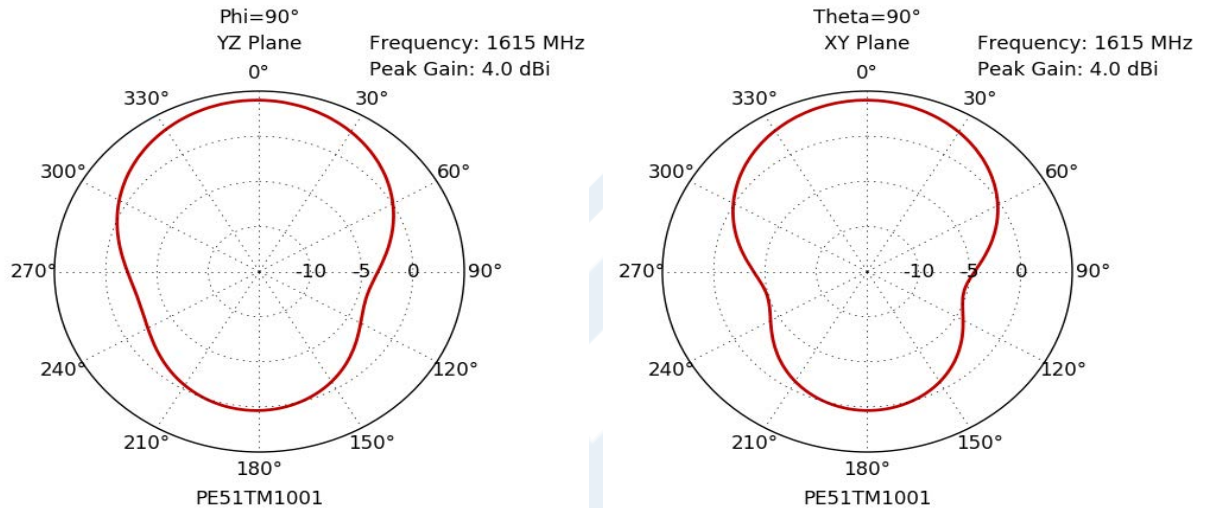
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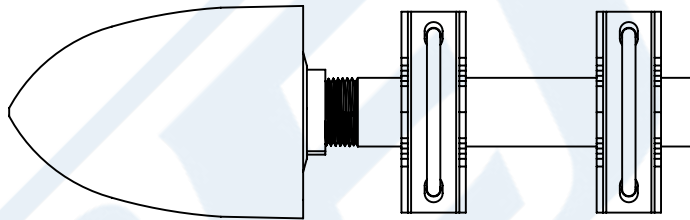
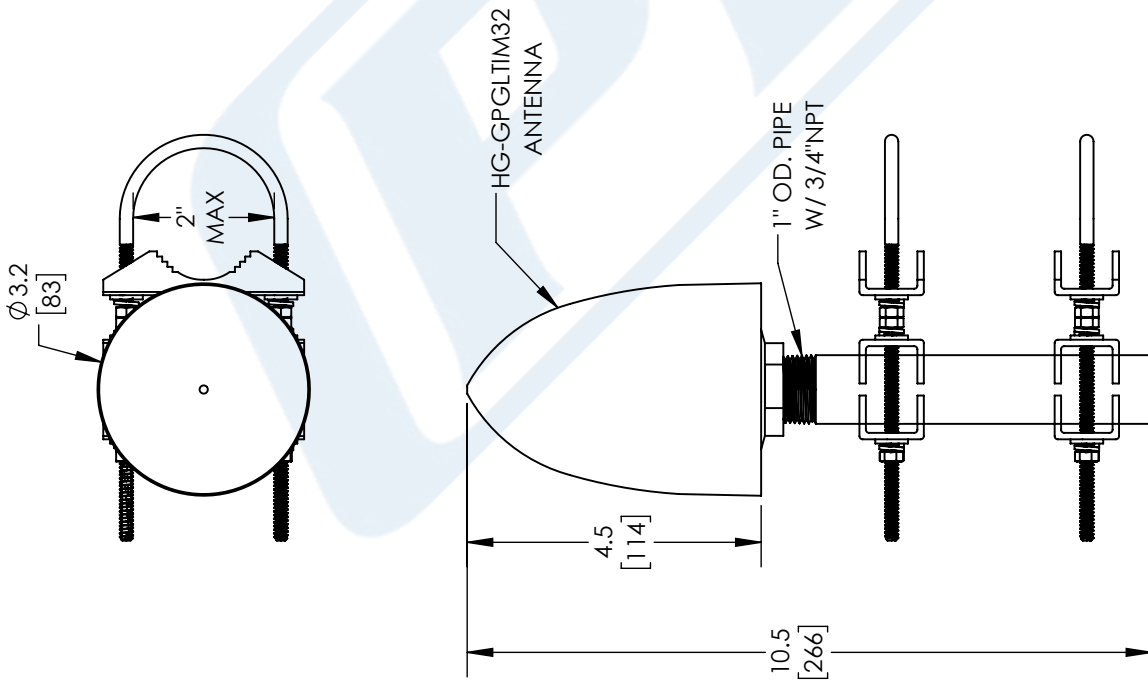
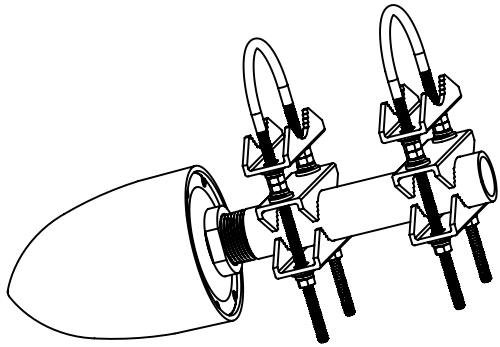
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# PE51TM1001 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	07/16/2019	MMILLER



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
X $\pm$ 2 [5.08]	XX $\pm$ 01 [ .25] $\pm$ 1/32
XXX $\pm$ .005 [ .13]	ANGLES $\pm$ 1°
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	
THIRD-ANGLE PROJECTION	

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