



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

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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.

- Timing Antenna installs to the mast using the included 6" long 3/4" NPT pipe and mounting bracket.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- Route the coaxial cable and attach to the GPS/GLNSS receiver. Verify performance.

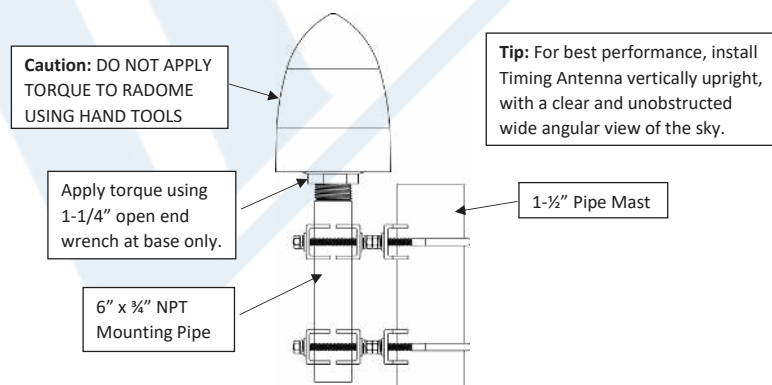


Fig. 1

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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

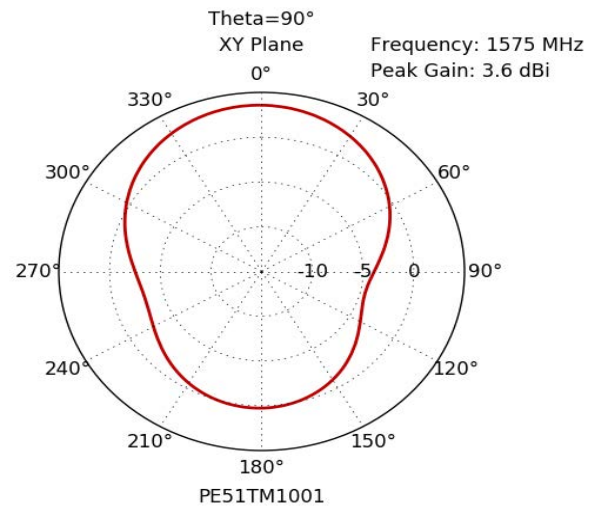
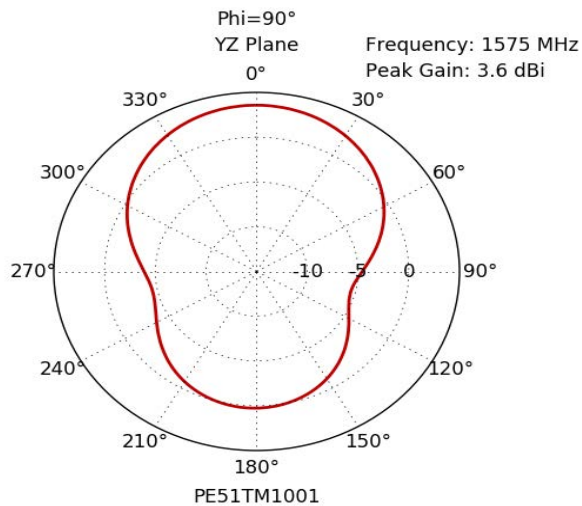
Temperature	
Operating Range	-40 to +85 deg C
Wind Loading	150 MPH [241.4 KPH]
Humidity	95%
Corrosion	Salt Fog
ESD Protection	IP67

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

Plotted and Other Data

Notes:

Typical Radiation Pattern



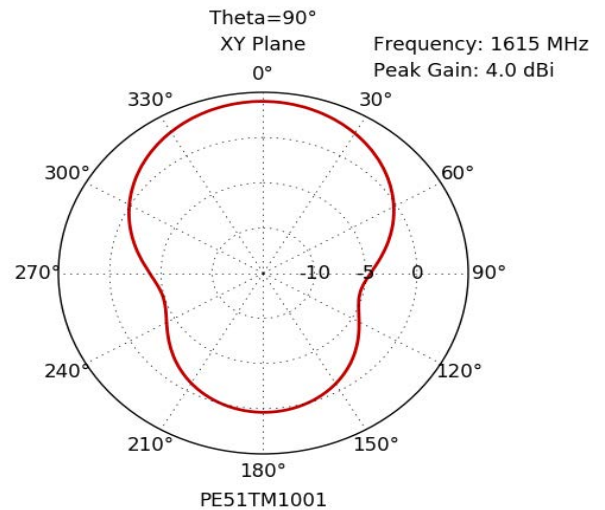
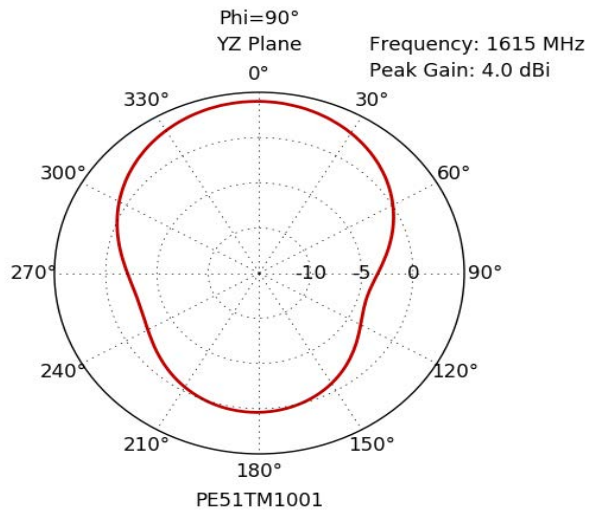
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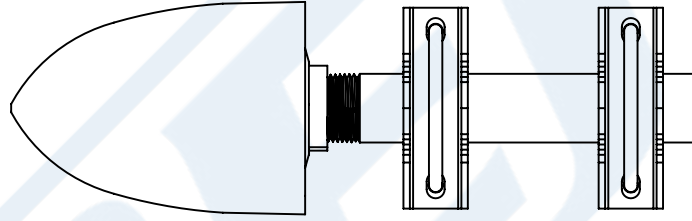
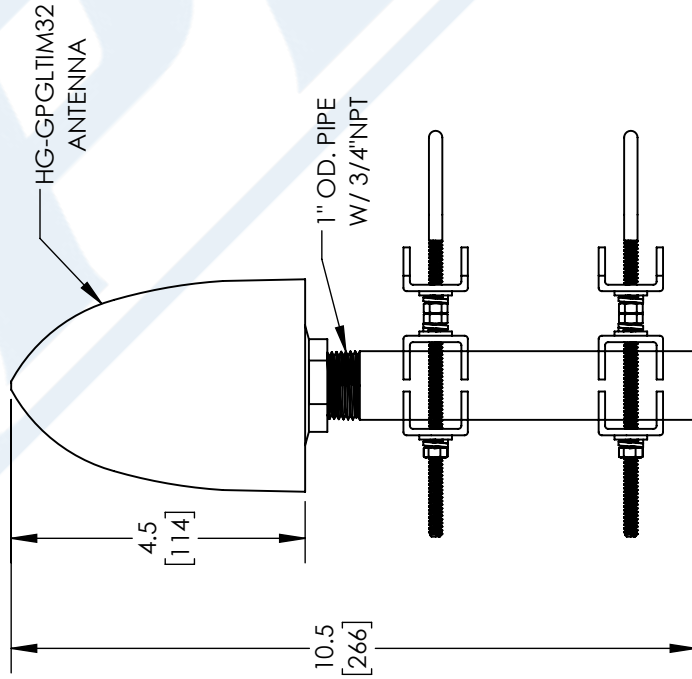
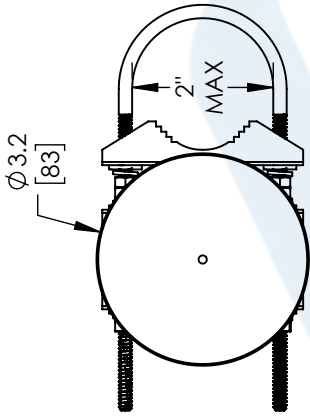
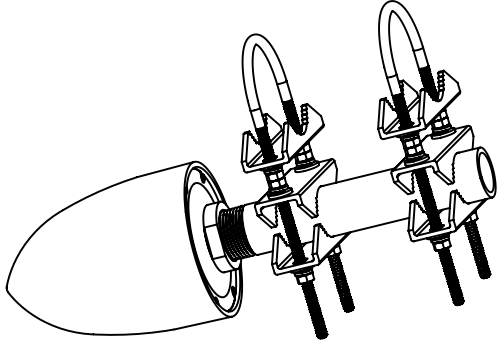
URL: <https://www.pasternack.com/single-antenna-1.574-1.61-ghz-32-dbi-gain-tnc-pe51tm1001-p.aspx>

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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:
X±.2 [5.08] FRACTIONS ±.1/32
XX±.01 [.25] ANGLES ± 1°
XXX±.005 [.13]

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

(PE) PASTERNAK
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REV A

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DRAWN BY BPUCHASKI
PART NUMBER PE51TM1001

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