



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
- 3/4" 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](#)



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INSTALLATION INSTRUCTIONS

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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.

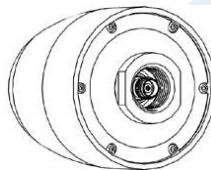


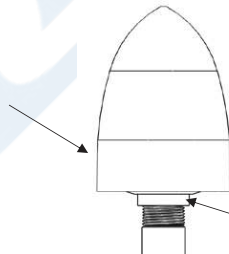
Fig.1

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 3/4" 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.

CAUTION: DO NOT APPLY TORQUE TO RADOME USING HAND TOOLS



Tip: For best performance, install Timing Antenna vertically upright, with a clear and unobstructed wide angular view of the sky.

Apply torque using 1-1/4" open-end wrench at base only

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Mechanical Specifications

Housing Plating/Color	Gray
Mounting Application	3/4 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

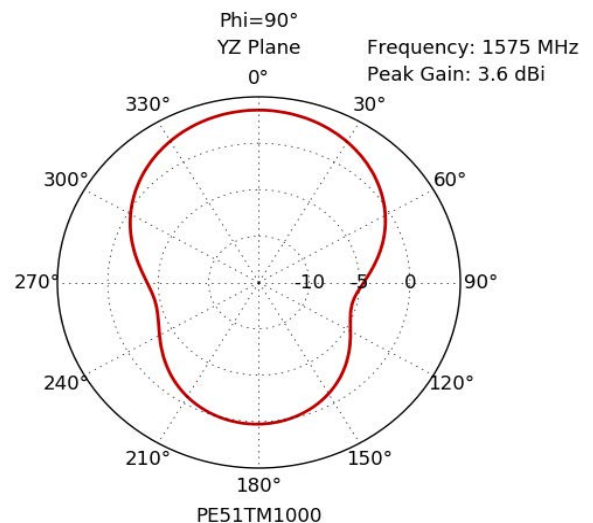
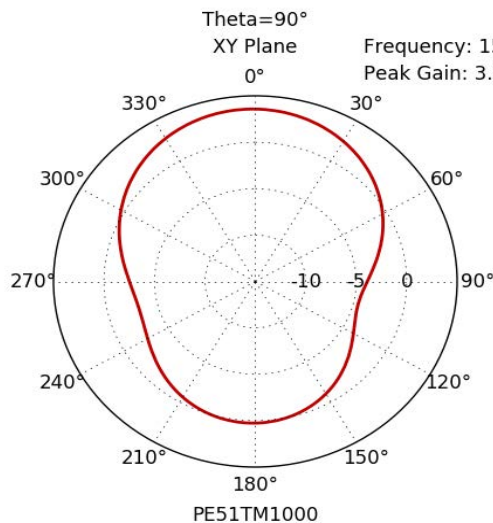
Temperature	
Operating Range	-40 to +85 deg C
Wind Loading	150 MPH [241.4 KPH]
Humidity	95%
Corrosion	Salt Fog
ESD Protection	15 kV
ESD Protection	IP67

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

Plotted and Other Data

Notes:

Typical Radiation Pattern



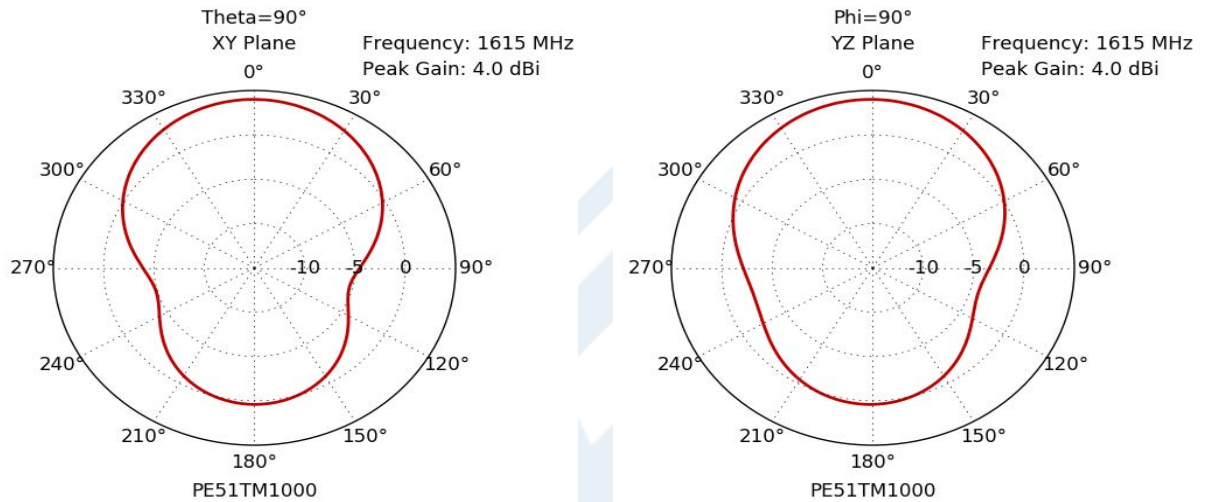
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32 dBi Timing GPS/GLNSS Antenna 1,574-1,610 MHz TNC Connector from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the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

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](#)

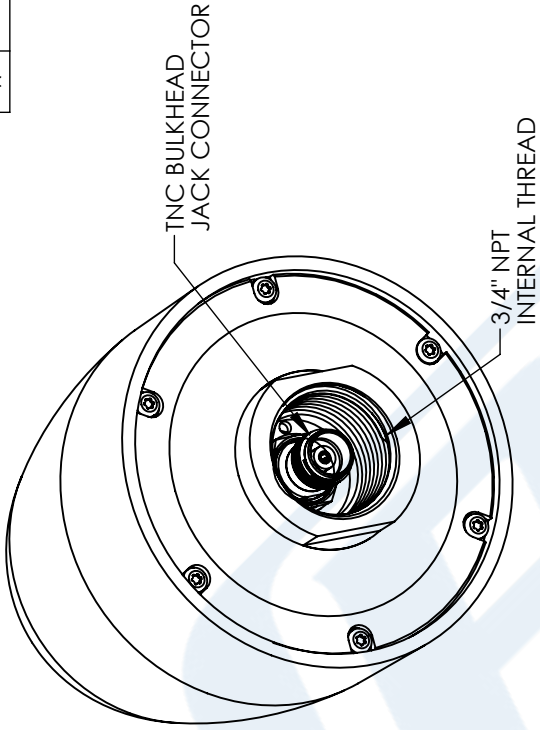
URL: <https://www.pasternack.com/single-antenna-1.574-1.61-ghz-32-dbi-gain-tnc-pe51tm1000-p.aspx>

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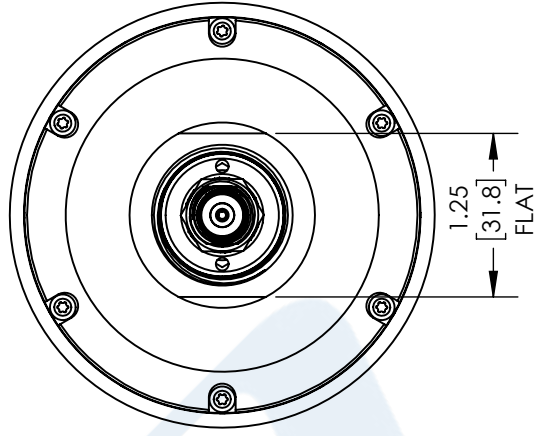
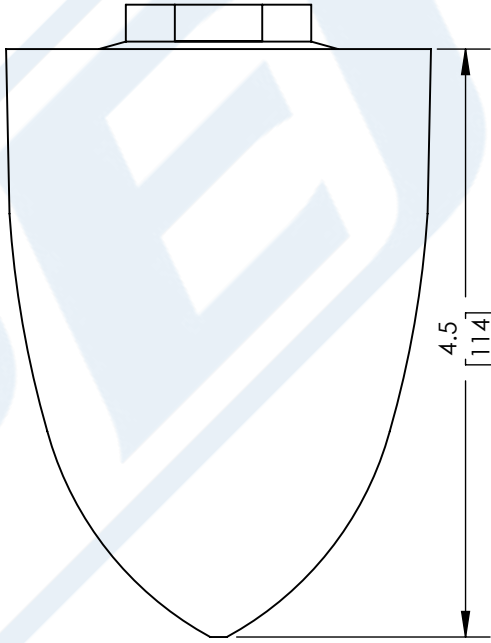
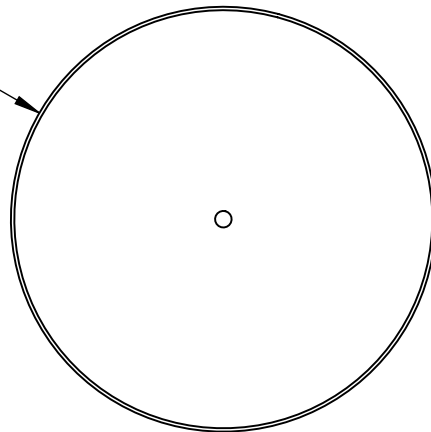
PE51TM1000 CAD Drawing

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



ϕ 3.2 [83]



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

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

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

PE PASTERNAK
an INFINITO brand

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SHEET 1 OF 1
SCALE N/A

SIZE CAGE DRAWN BY PART NUMBER
A 53919 BPUCHASKI PE51TM1000
REV A

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