1.574 GHz to 1.61 GHz, 32 dBi GPS/GLNSS Timing Antenna

KP-GPSL1-32-TF

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 KP Performance KP-GPSL1-32-TF GPS timing antenna is a active antenna that filters and amplifies global positioning system signals received from GNSS (L1) satellite constellations. The KP-GPSL1-32-TF recovers timing and positioning data for timing reference and phase synchronization.

The KP-GPSL1-32-TF antenna from KP Performance operates within 1.574 GHz to 1.61 GHz. High 32 dBic gain and low 3.5 dB noise figure allows for longer commercial grade cable, making installation versatile and economical.

This KP Performance TNC Female KP-GPSL1-32-TF GPS antenna is compatible with several existing mounting brackets. The L1 band antenna is a fully ruggedized unit and IP67 Rated.

Configuration

Design	GPS/GLNSS
Application Band	L1
Band Type	Single
Radiation Pattern	Omni Directional
DC Injection	Coaxial feed cable center conductor
Connector Type	TNC Female

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	1,574		1,610	MHz
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:
1.574 GHz to 1.61 GHz, 32 dBi GPS/GLNSS Timing Antenna KP-GPSL1-32-TF

+1 (855) 276-5772 | info@kpperformance.com | kpperformance.com

1.574 GHz to 1.61 GHz, 32 dBi GPS/GLNSS Timing Antenna

KP-GPSL1-32-TF

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	5 lbs [2.27 kg]

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications:
1.574 GHz to 1.61 GHz, 32 dBi GPS/GLNSS Timing Antenna KP-GPSL1-32-TF

+1 (855) 276-5772 | info@kpperformance.com | kpperformance.com

1.574 GHz to 1.61 GHz, 32 dBi GPS/GLNSS Timing Antenna

KP-GPSL1-32-TF

INSTALLATION INSTRUCTIONS

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

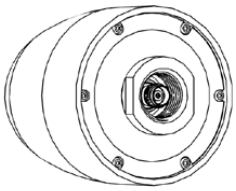
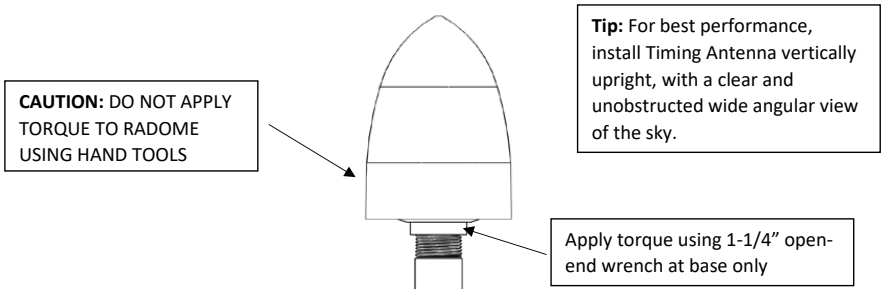


Fig.1

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.



Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
1.574 GHz to 1.61 GHz, 32 dBi GPS/GLNSS Timing Antenna KP-GPSL1-32-TF

1.574 GHz to 1.61 GHz, 32 dBi GPS/GLNSS Timing Antenna

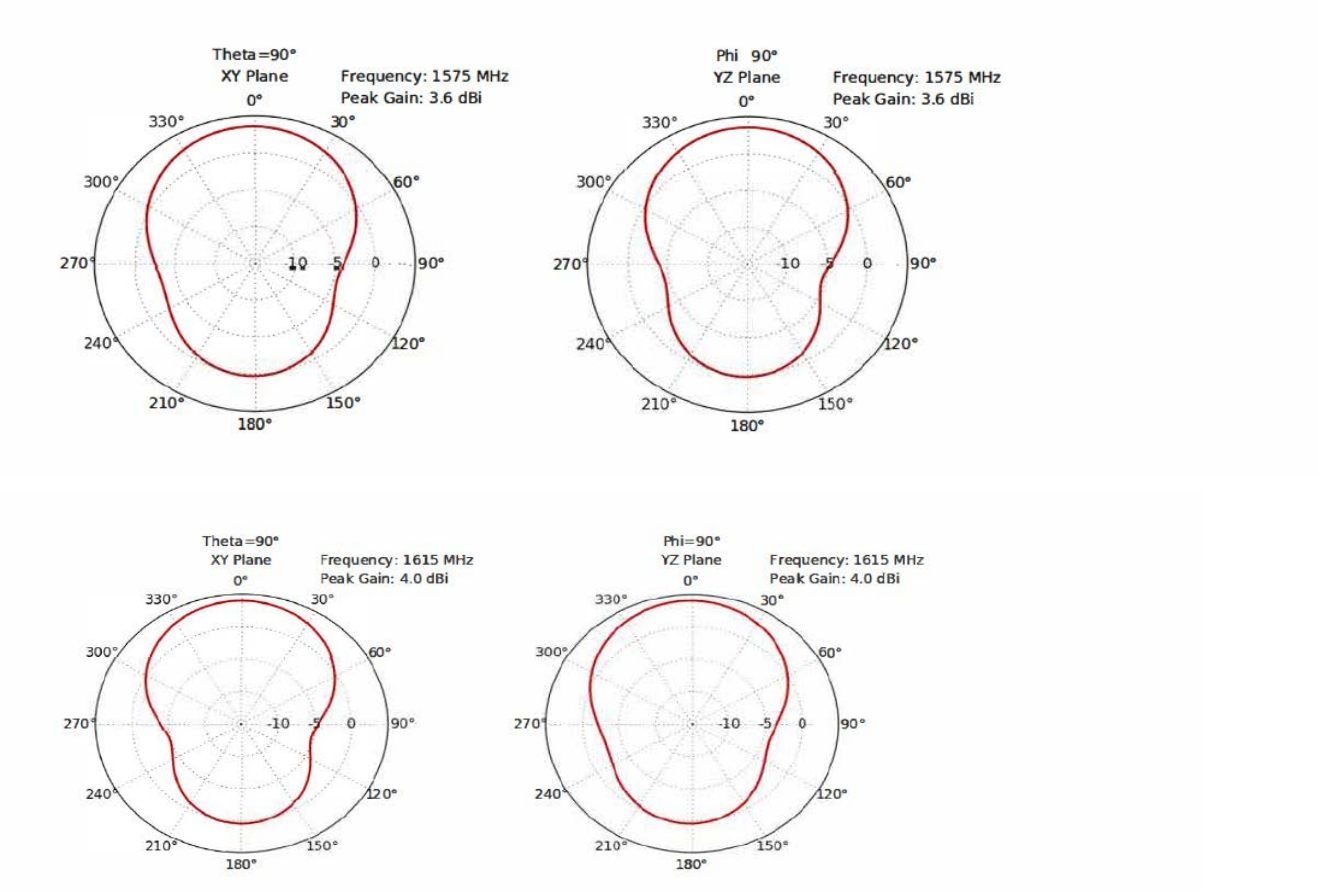
KP-GPSL1-32-TF

Wind Survivability	150 MPH [241.4 KPH]
Humidity	95%

Plotted and Other Data

Notes:

Typical Radiation Pattern



Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications:
1.574 GHz to 1.61 GHz, 32 dBi GPS/GLNSS Timing Antenna KP-GPSL1-32-TF

+1 (855) 276-5772 | info@kpperformance.com | kpperformance.com

1.574 GHz to 1.61 GHz, 32 dBi GPS/GLNSS Timing Antenna

KP-GPSL1-32-TF

Appendix

Electrical Downtilt: Angle in the antenna's elevation pattern in which the maximum gain occurs.

Gain: Antenna's average gain.

Front to Back Ratio @ 180°±30°: Average difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over ±30° angles.

Cross-polarization Ratio (dB): Typical difference between the co-polarization and cross-polarization gain across the sector's 3 dB Beam Width.

Dedicated to serving the needs of the Wireless Internet Service Provider (WISP) market, KP Performance Antennas offers purpose built products that reliably perform in the field. KP Performance Antennas product line consists of Yagi, Grid, Omni, Dish and other style antennas that operate in the 900 MHz, 2.4 GHz, 3 GHz, and 5 GHz frequencies.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 1.574 GHz to 1.61 GHz, 32 dBi GPS/GLNSS Timing Antenna KP-GPSL1-32-TF

URL: https://www.kpperformance.com/1.574-ghz-to-1.61-ghz-32-dbi-gps-glnss-timing-antenna-kp-gpsl1-32-tf-p.aspx

KP-GPSL1-32-TF CAD Drawing