

## 31 dBi Active GPS/BeiDou/GLONASS Timing Antenna RHCP 1563/1575/1602, RG174 TNC Female IPX6

### KPANGPS1016



#### Features

- TNC Female
- Right Hand Circular Polarized
- 28 dB LNA w/ low 1.5 dB Noise Figure
- Neodymium Rare-Earth Magnet
- IPX6 Rated

#### Applications

- GPS L1/BDS B1/GLONASS G1
- High Accuracy Global Positioning
- Precision Agriculture, Mining and Construction
- Military and Security
- Law Enforcement and Public Safety

#### Description

KP Performance's KPANGPS1016 active GPS timing antenna filters and amplifies GNSS L1, GLONASS G1, and BeiDou B1 global positioning signals received from satellite constellations. The antenna operates within 1559 MHz to 1563 MHz, 1574 MHz to 1606 MHz with high out-of-band rejection with an integrated 28 dB LNA.

The KP Performance KPANGPS1016 recovers timing and positioning data for timing reference and phase synchronization. High 31 dBi gain and low 1.5 dB noise figure allows for longer commercial grade cable, making installation versatile and economical.

The GPS timing antenna KPANGPS1016 from KP Performance is externally grounded with a DC feed through the RF cable. This Timing Antenna with TNC Female connector is compatible with several existing mounting brackets. The active antenna is fully ruggedized and IPX6 Rated. Active GPS Antennas from KP Performance are high-quality components backed by expert technical support and sales personnel.

#### Configuration

Design	GPS Active
Band Type	Single
Polarization	RHCP
Cable Type	RG174
Connector Type	TNC Female
Number of Ports	1

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	1,559		1,607	MHz
Input VSWR			2:1	
Output VSWR			2:1	
Impedance		50		Ohms
Gain		31		dBi
Gain Variation		±5		dBi
Out Of Band Rejection	20			dB
Operating DC Voltage	3		5.5	Volts
Current	8		22	mA

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:  
[31 dBi Active GPS/BeiDou/GLONASS Timing Antenna RHCP 1563/1575/1602, RG174 TNC Female IPX6 KPANGPS1016](#)

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 RHCP 1563/1575/1602, RG174 TNC Female IPX6



**KPANGPS1016**

**Specifications by Band**

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	1.559 to 1.563	1.574 to 1.577	1.597 to 1.607			GHz
Center Frequency	1.561	1.575	1.602			GHz

**Mechanical Specifications**

**Size**

Length	4.27 in [108.46 mm]
Width	3.15 in [80.01 mm]
Height	3.15 in [80.01 mm]
Weight	1.02 lbs [462.66 g]

**Environmental Specifications**

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

IP Rating	IPX6
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**Plotted and Other Data**

Notes:

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**KPANGPS1016**



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## 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.

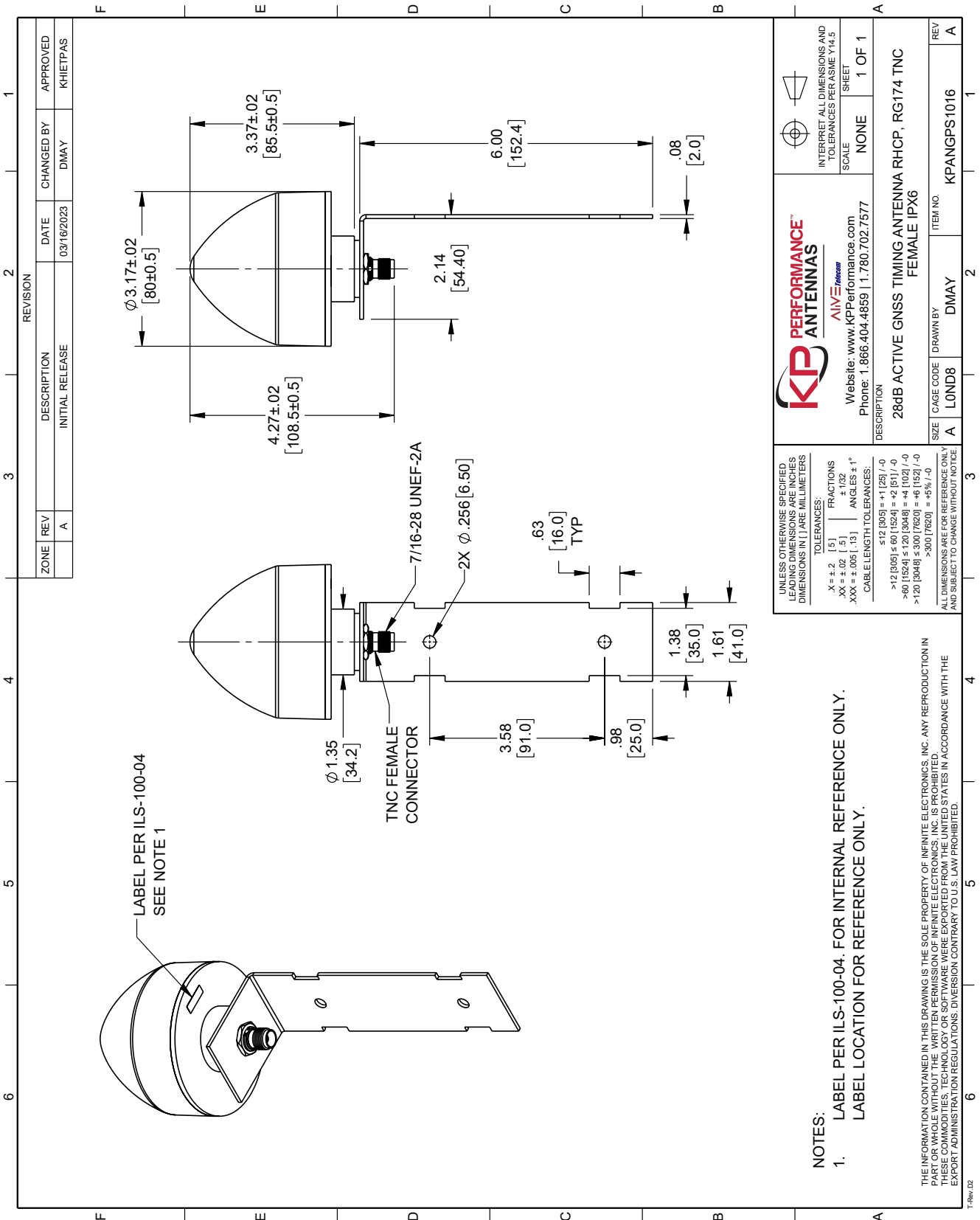
Dedicated to serving the needs of the Wireless Internet Service Provider (WISP) market, KP Performance Antennas offers purpose built products that reliably perform in the field. KP Performance Antennas product line consists of Yagi, Grid, Omni, Dish and other style antennas that operate in the 900 MHz,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

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URL:

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. KP Performance reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. KP Performance does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and KP Performance does not assume liability arising out of the use of any part or document.

KPANGPS1016 CAD Drawing



ZONE		REVISION		CHANGED BY		APPROVED	
A	REV	DESCRIPTION	DATE	DMAY	KHIETPAS	INITIAL RELEASE	03/16/2023

**KP PERFORMANCE™ ANTENNAS**  
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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5  
 SCALE NONE  
 SHEET 1 OF 1

DESCRIPTION: 28dB ACTIVE GNSS TIMING ANTENNA RHCP, RG174 TNC FEMALE IPX6

SIZE: A LOND8  
 DRAWN BY: DMAY  
 ITEM NO.: KPANGPS1016

REV: A

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

TOLERANCES:  
 X = ±.2 [5] FRACTIONS  
 XX = ±.02 [5] ANGLES ±1°  
 XXX = ±.005 [13] CABLE LENGTH TOLERANCES:  
 ≤12 [305] = ±1 [25] / -0  
 >12 [305] ≤ 60 [1524] = ±2 [51] / -0  
 >60 [1524] ≤ 120 [3048] = ±4 [102] / -0  
 >120 [3048] ≤ 300 [7620] = ±6 [152] / -0  
 >300 [7620] = ±5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE

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