

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



PPANGPS1016

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

PolyPhaser's PPANGPS1016 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 PolyPhaser PPANGPS1016 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 PPANGPS1016 from PolyPhaser 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 PolyPhaser 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	GHz
Input VSWR			2:1	
Output VSWR			2:1	
Impedance		50		Ohms
Gain		31		dBi
Gain Variation		±5		dBi
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 PPANGPS1016](#)

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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

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Mechanical Specifications

Size	
Overall Length	4.27 in [108.46 mm]
Width	3.15 in [80.01 mm]
Height	3.15 in [80.01 mm]
Weight	1 lbs [453.59 g]
Ingress Protection	IPX6

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

Plotted and Other Data

Notes:

Typical Performance Data

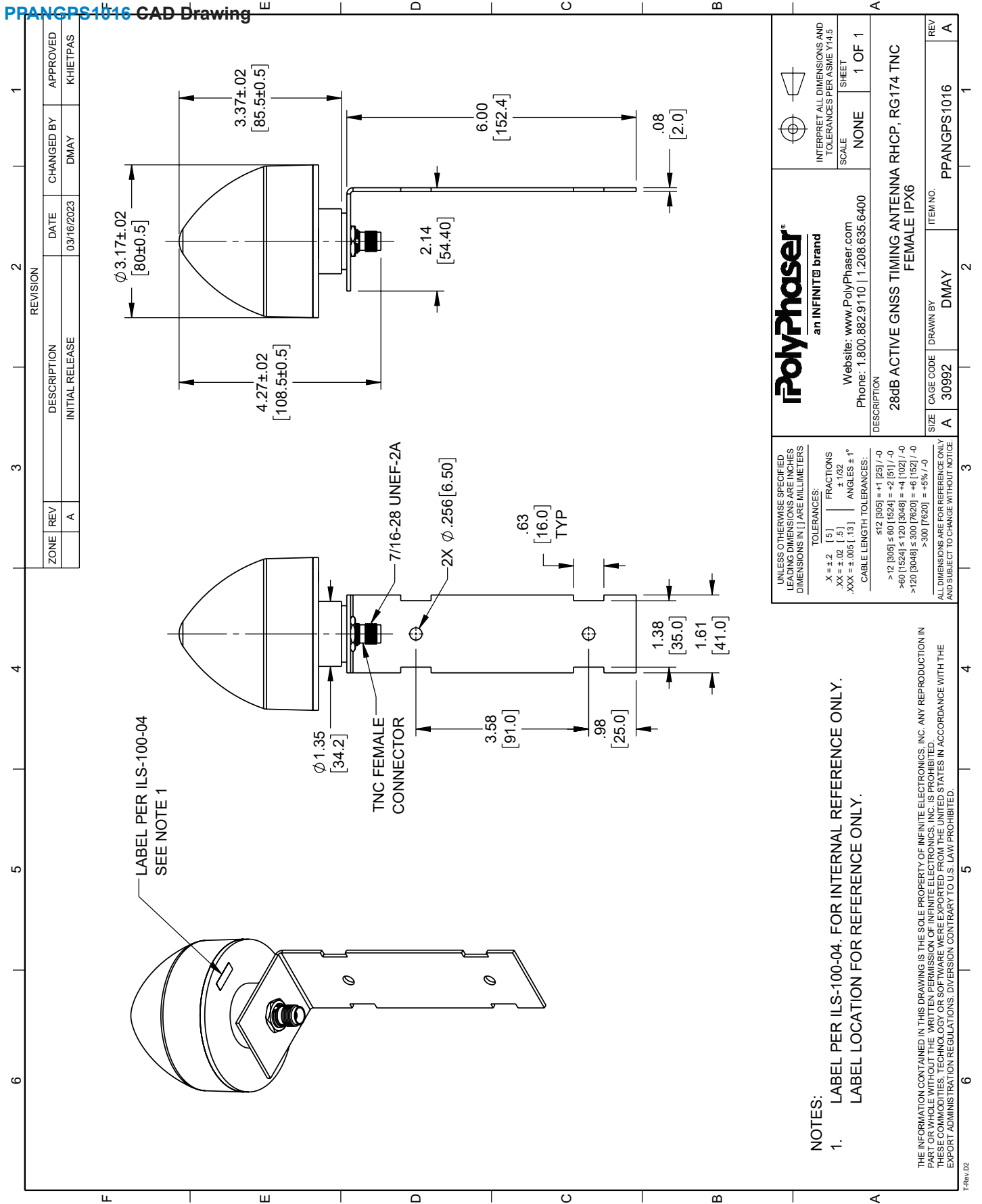
PolyPhaser protects and increases the reliability of global RF communications networks, including transportation, telecommunications, defense, security and industrial applications, with superior RF surge protection technologies including DC Block, DC Pass and Ultra Low PIM. Backed by responsive service and expert technical support PolyPhaser continually expands its product offering and services to serve engineers' urgent needs for RF components in mission critical communication networks.

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URL: <https://www.polyphaser.com/31-dbi-gps-active-antenna-1559-1607-mhz-tnc-female-connector-ppangps1016-p.aspx>

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PPANGPS1016 CAD Drawing



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

REVISION	DATE	CHANGED BY	APPROVED
	03/16/2023	DMAY	KHIETPAS

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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

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

TOLERANCES:
 .X = ±.2 [5]
 .XX = ±.02 [1.5]
 .XXX = ±.005 [13]
 FRACTIONS: ± 1/32
 ANGLES: ± 1°
 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.

SIZE: A
CAGE CODE: 30992
DRAWN BY: DMAY
ITEM NO.: PPANGPS1016
REV: A

NOTES:
1. LABEL PER ILS-100-04. FOR INTERNAL REFERENCE ONLY.
LABEL LOCATION FOR REFERENCE ONLY.

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