



Multi Band 43dBi Timing GPS/GLNSS Antenna 1,166-1,606 MHz N Type Female Connector

Antennas Technical Data Sheet

PE51GPS1005

Features

- Dual Band L1/L5
- Multiple GNSS Systems Supported
- High 40 dB Gain
- Low 2 dB Noise Figure
- 1 dB Axial Ratio
- IP67 Rated
- External Grounding Lug

Applications

- Global: GPS (L1 / L5), Galileo (E1 / E5), GLONASS (G1 / G3)
- Local: BeiDou (B1 / B2), IRNSS (L5)
- Timing and Positioning Phase Synchronization
- 1166 - 1218 MHz / 1559 - 1606 MHz
- High Accuracy Mission Critical Global Positioning
- Military and Security

Description

Pasternack's Dual Band (L1 / L5) PE51GPS1005 active GPS timing antenna filters and amplifies GNSS (L1 / L5), Galileo (E1 / E5), GLONASS (G1 / G3), BeiDou (B1 / B2), QZSS (L1/L5), and IRNSS (L5) global positioning signals received from satellite constellations. The antenna operates within 1166 MHz to 1218 MHz and 1559 MHz to 1606 MHz with high out-of-band rejection with an integrated 40 dB LNA.

The Pasternack PE51GPS1005 recovers timing and positioning data for timing reference and phase synchronization. High 43 dBic gain and low 2 dB noise figure allows for longer commercial grade cable, making installation versatile and economical. The 1 dB axial ratio increases position accuracy in densely populated urban areas.

The GPS timing antenna PE51GPS1005 from Pasternack is externally grounded with a DC feed through the RF cable. This Timing Antenna with Type N Female connector is compatible with several existing mounting brackets. The active dual band (L1 / L5) antenna is fully ruggedized and IP67 Rated. Active GPS Antennas from Pasternack are high-quality components backed by expert technical support and sales personnel. Like the other RF components at Pasternack, the PE51GPS1005 with 40 dB gain is ready to ship the same day.

Configuration

Design	GPS/GLNSS
Application Band	L1/L5
Band Type	Multi
Radiation Pattern	Omni Directional
Polarization	RHCP
DC Injection	Coaxial feed cable center conductor
Connector Type	N Female

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	1,166		1,606	MHz
Input VSWR		1.8:1		
Impedance		50		Ohms
Gain			43	dBi
Gain Variation		±3		dBi
Noise Figure		2		dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Multi Band 43dBi Timing GPS/GLNSS Antenna 1,166-1,606 MHz N Type Female Connector PE51GPS1005](#)



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Out Of Band Rejection	40	60	dB
Operating DC Voltage	3.5	12	Volts
Current		30	mA
Axial Ratio		1	dB

Mechanical Specifications

Housing Plating/Color

White

Size

Overall Length

3.937 in [100 mm]

Height

3.03 in [76.96 mm]

Weight

0.9 lbs [408.23 g]

Environmental Specifications

Humidity

95%

ESD Protection

IP67

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

Plotted and Other Data

Notes:

Multi Band 43dBi Timing GPS/GLNSS Antenna 1,166-1,606 MHz N Type Female 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.

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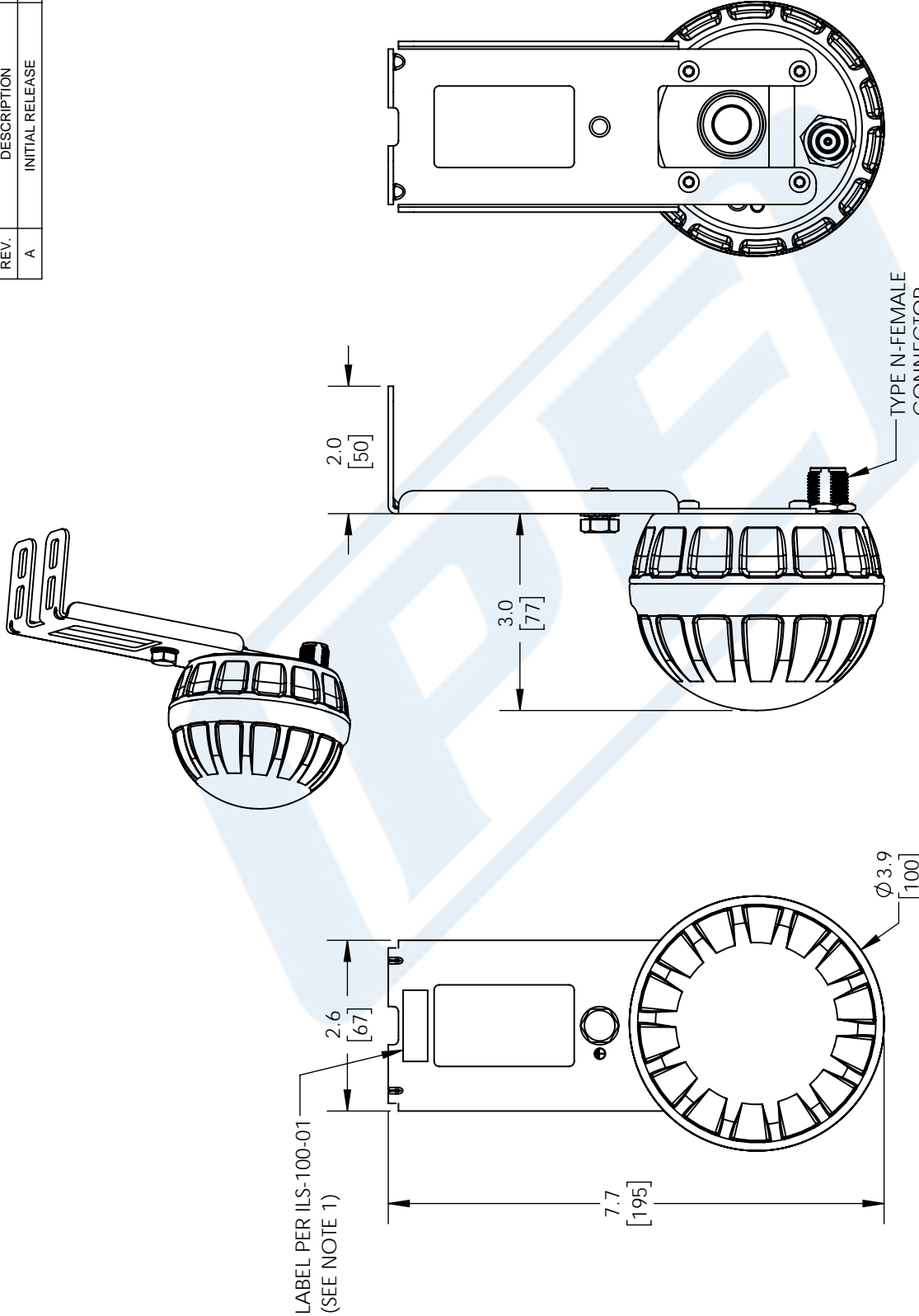
URL: <https://www.pasternack.com/multi-antenna-1.166-1.606-ghz-43-dbi-gain-n-pe51gps1005-p.aspx>

The information contained in 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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE51GPS1005 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	04/22/2021	KHIETPAS



PE PASTERNAK an INFINITI® brand Pasternack Enterprises, Inc. P.O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920 1.866.727.8376 Fax: 1.949.261.7451 Website: www.pasternack.com E-mail: sales@pasternack.com		THIRD-ANGLE PROJECTION THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED. SHEET 1 OF 1 SCALE N/A	
UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS TOLERANCES: .X = ±.2 [5.08] .XX = ±.02 [.51] .XXX = ±.005 [.13] CABLE LENGTH (L) TOLERANCES: L ≤ 12 [305] = ±1 [25] / -0 12 [305] < L ≤ 60 [1524] = ±2 [51] / -0 60 [1524] < L ≤ 120 [3048] = ±4 [102] / -0 120 [3048] < L ≤ 300 [7620] = ±6 [152] / -0 300 [7620] < L = ±5% / -0 ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	PE51GPS1005 P.O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920 1.866.727.8376 Fax: 1.949.261.7451 Website: www.pasternack.com E-mail: sales@pasternack.com	BPUCHASKI CAGE CODE 53919 DRAWN BY ITEM NO.	REV A

- NOTES:
1. LABEL PER ILS-100-01 (FOR INTERNAL REFERENCE ONLY)
LABEL LOCATION FOR REFERENCE ONLY

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