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Precision Calibrated, Output Isolator WR-19 Waveguide Noise Source Module, Output ENR of 15 dB, +28 VDC, 40 GHz to 60 GHz

Noise Generators Technical Data Sheet PEWNS2002

Features

- WR-19 Waveguide Noise Source with Ouput Isolator
- U Band Frequency Range: 40 GHz to 60 GHz
- Output ENR Level: 15 dB min
- Noise Output Variation: < 0.01 dB/oC , < 0.1 dB/%V
- Flatness +/- 2 dB max
- DC Voltage: +28 Vdc
- 0°C to +85°C Operating Temperature
- VSWR: 1.3:1 Max

Applications

- Noise Figure Test & Measurement
- Built-In Test Applications
- Laboratory Applications
- mm-Wave Radiometers
- Automotive Radar
- R&D for Broadband mm-Wave

Wireless Communication Systems

Description

The PEWNS2002 is a U Band waveguide Noise Source module with output Isolator that operates over the full frequency range of 40 GHz to 60 GHz. The benefit of the output Isolator results in improved output port matching for more accurate measurements as well as protection of the noise diode from incident RF power. The microstrip assembly incorporates a millimeter wave noise diode screened for superior noise characteristics that results in highly stable and reliable performance. This module can be used in built-in test and laboratory applications, and can replace outdated gas tube noise sources. Addtional applications include noise figure measurements, millimeter wave radiometers, automotive radar, and reserach and development in mm-wave broadband wireless communication systems. The design operates at +28 Vdc with an output ENR level of 15 dB min and a noise output variation of < 0.01 dB/°C, < 0.1 dB/%V. Maximum Flatness across the frequency band is +/- 2 dB and output VSWR is 1.3:1 max with the isolator. Operating temperature range is 0°C to +85°C. The rugged package supports a WR-19 waveguide interface and a BNC connector for the DC voltage supply.

Electrical Specifications

RF Characteristics

Description	Minimum	Typical	Maximum	Units
Frequency Range	40		60	GHz
Impedance		50		Ohms
Output ENR	15			dB
Flatness			±2	dB
VSWR			1.6:1	
Output Variation vs Input Voltage			0.1	dB/%V
Output Variation vs Temperature			0.01	dB/deg C
Bias Voltage 1		28		Volts
Input Current 1			30	mA

Mechanical Specifications

Package Type	Connectorized Module

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: Precision Calibrated, Output Isolator WR-19 Waveguide Noise Source Module, Output ENR of 15 dB, +28 VDC, 40 GHz to 60 GHz PEWNS2002

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Connectors

DC Connector	BNC

Environmental Specifications

Temperature

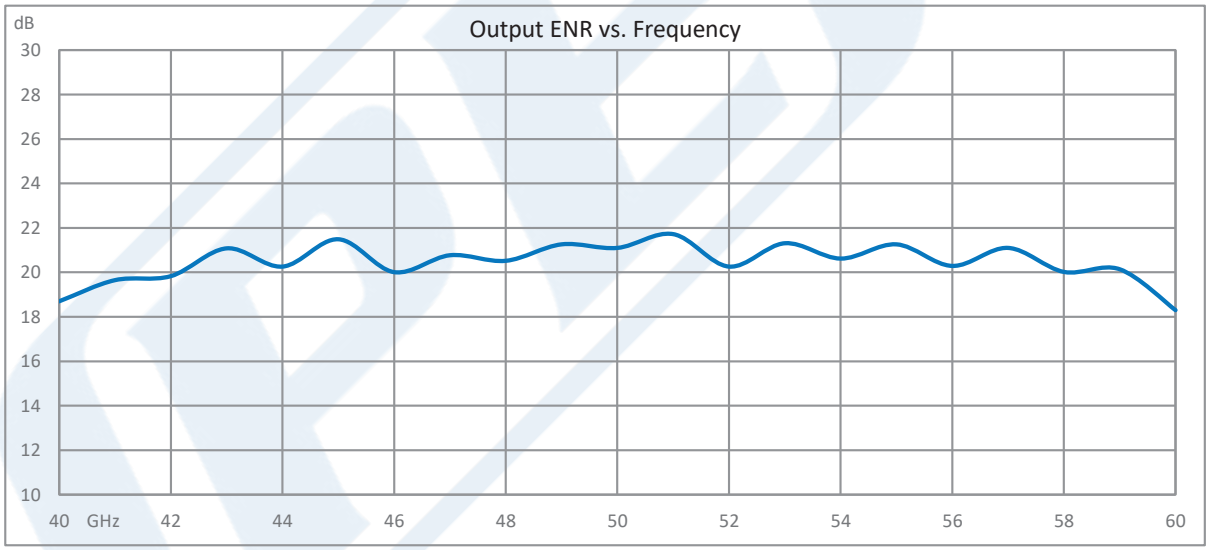
Operating Range	0 to +85 °C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

Typical Performance Data



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Precision Calibrated, Output Isolator WR-19 Waveguide Noise Source Module, Output ENR of 15 dB, +28 VDC, 40 GHz to 60 GHz 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/precision-calibrated-output-isolator-noise-source-enr-15-db-60-ghz-pewns2002-p.aspx

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PEWNS2002 CAD Drawing

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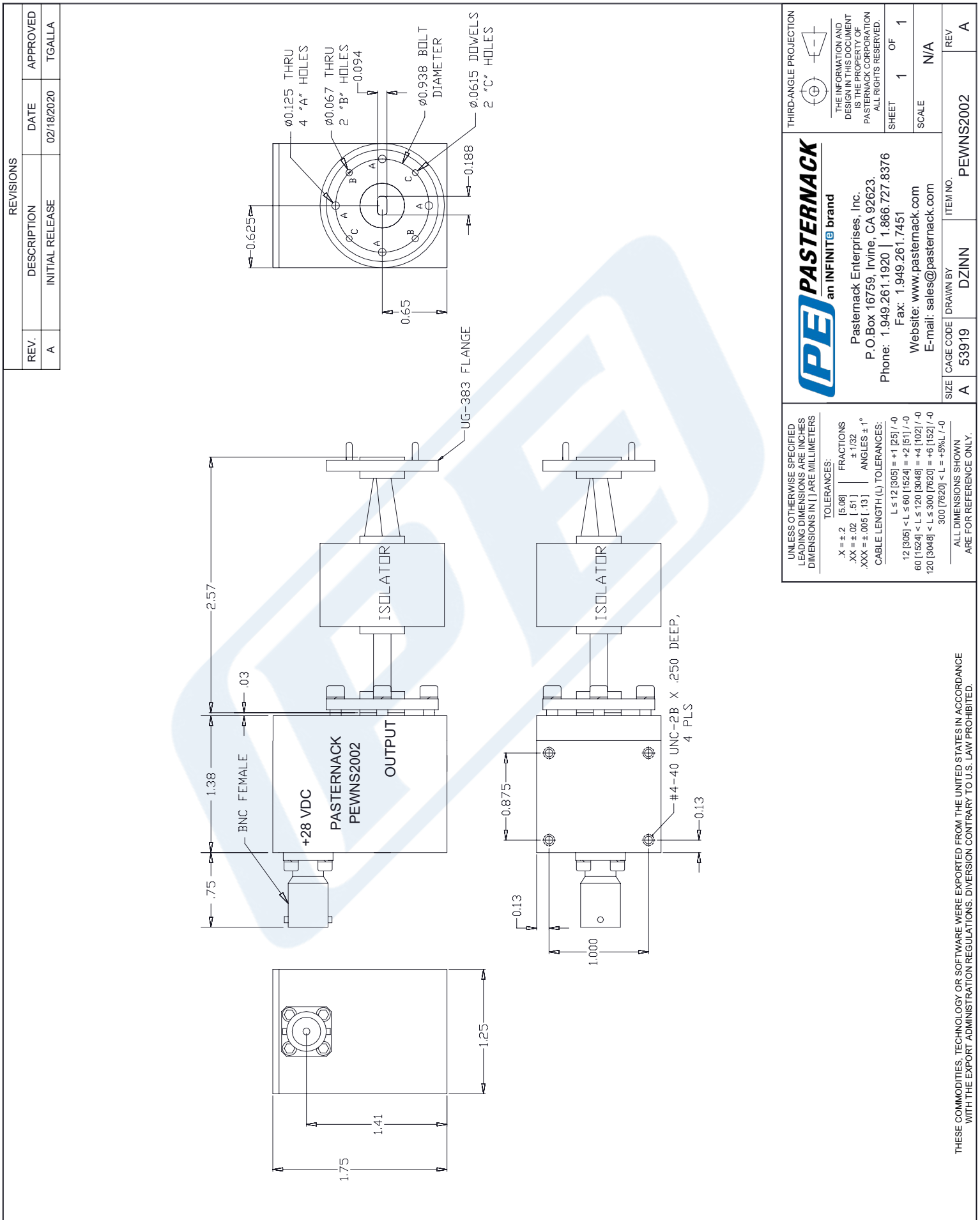

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