



SMA Calibrated, Integral Isolator Noise Source Module,
Output ENR of 30 dB, +28 VDC, 3.7 GHz to 4.2 GHz

Noise Generators Technical Data Sheet

PE85N1014

Features

- 3.7 to 4.2 GHz Bandwidth
- Integral Isolator for improved port matching
- Very High ENR 30 to 35 dB
- Excellent flatness +/- 0.75 dB max
- Low VSWR 1.3:1 typical
- Extremely Stable Performance
- BNC Voltage Bias and Output Female SMA connectors
- Designed to meet MIL-STD-202F environmental test conditions
- Internal Voltage Regulation

Applications

- High Noise Figure Measurements
- Built-In Test equipment for signal strength calibrators and radar applications
- Automatic Test Equipment (ATE)
- Baseband Signal Simulation
- 802.11ac WiFi.

Description

The PE85N1014 is a coaxial packaged calibrated Noise Source with an integral Isolator which operates over the frequency range of 3.7 GHz to 4.2 GHz. The benefit of the integrated isolator results in improved port matching for more accurate measurements as well as protection of the noise diode from incident RF power. This design features a high output ENR of 30 to 35 dB with excellent flatness of +/- 0.75 dB max, with extremely stable performance over temperature. Ideal for applications that require high ENR and resistance to large incident RF power that may be associated with automated test equipment (ATE), radiometer, and radar systems. The input voltage is +28 Vdc which is internally regulated and the operational temperature range is -20°C to +75°C. The rugged package supports a BNC connector for DC bias and an output Female SMA connector. Additionally, the model is designed to meet a variety of demanding MIL-STD-202F environmental test conditions including Humidity, Thermal Shock, and Vibration for added confidence for highly reliable operation.

Electrical Specifications

RF Characteristics

Description	Minimum	Typical	Maximum	Units
Frequency Range	3.7		4.2	GHz
Impedance		50		Ohms
Output ENR	30		35	dB
Flatness		±0.75		dB
VSWR		1.3:1		
Bias Voltage 1	22	28	30	Volts

Mechanical Specifications

Size

Length	2.5 in [63.5 mm]
Width/Dia.	1.25 in [31.75 mm]
Height	0.81 in [20.57 mm]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Calibrated, Integral Isolator Noise Source Module, Output ENR of 30 dB, +28 VDC, 3.7 GHz to 4.2 GHz PE85N1014](#)



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Weight	0.202 lbs [91.63 g]
Package Type	Connectorized Module
Connectors	
DC Connector	BNC Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range

-20 to +75 deg C

Environment

Humidity

MIL-STD-202F, Method 103, Cond B (96 hrs@95% R.H.)

Shock

MIL-STD-202F, Method 213, Cond B (100g, 6 msec)

Vibration

MIL-STD-202F, Method 204, Cond B (0.6" 2x ampl or 15g)

Altitude

MIL-STD-202F, Method 105, Condition B (50,000 ft)

Temperature Cycle

MIL-STD-202F, Method 105C, Condition D (5 cycles)

Thermal Shock

MIL-STD-202F, Method 107, Condition A (5 cycles)

ESD Sensitivity

ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in ESD Workstation.



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

Plotted and Other Data

Notes:

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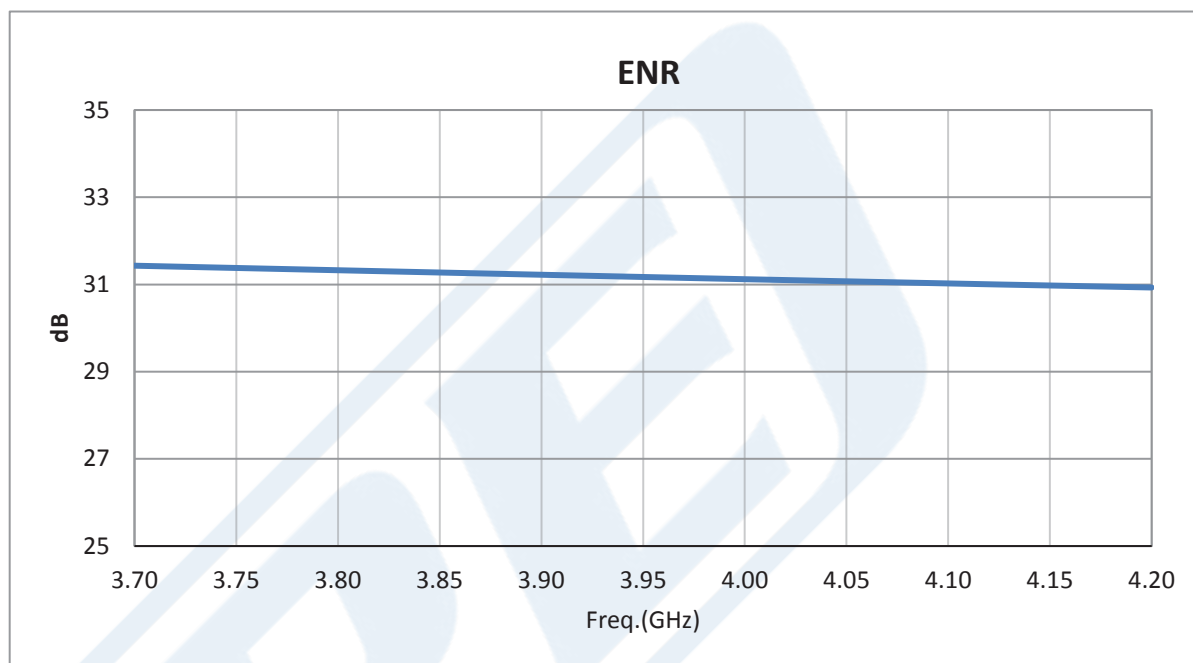


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Typical Performance Data



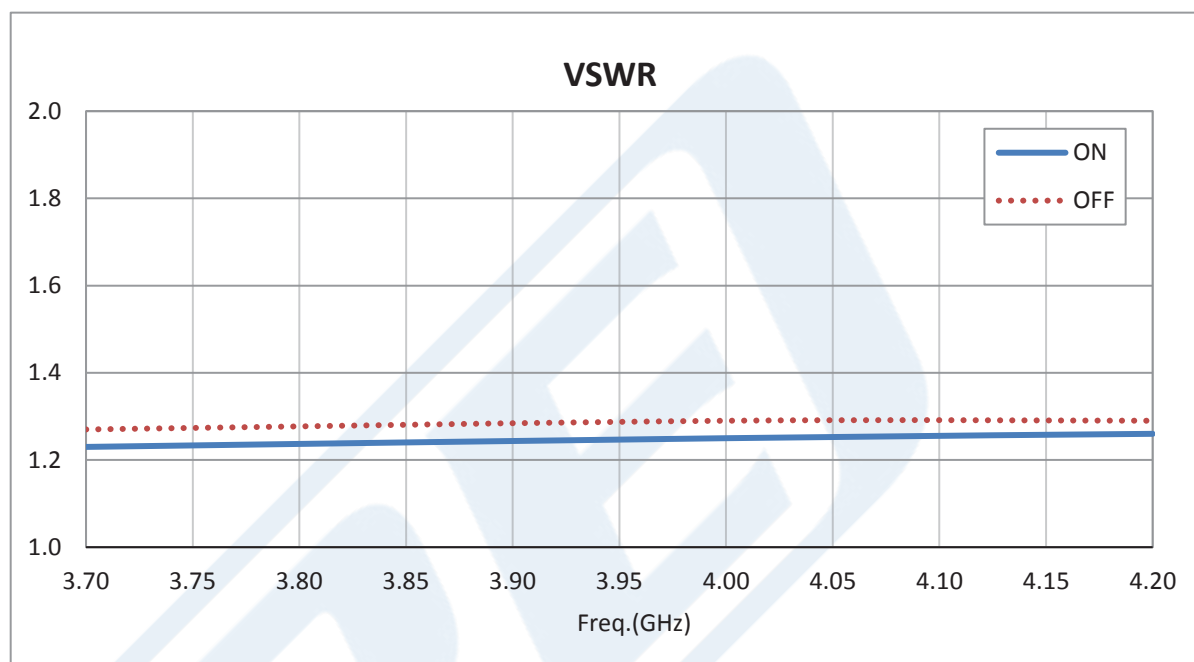
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SMA Calibrated, Integral Isolator Noise Source Module, Output ENR of 30 dB, +28 VDC, 3.7 GHz to 4.2 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

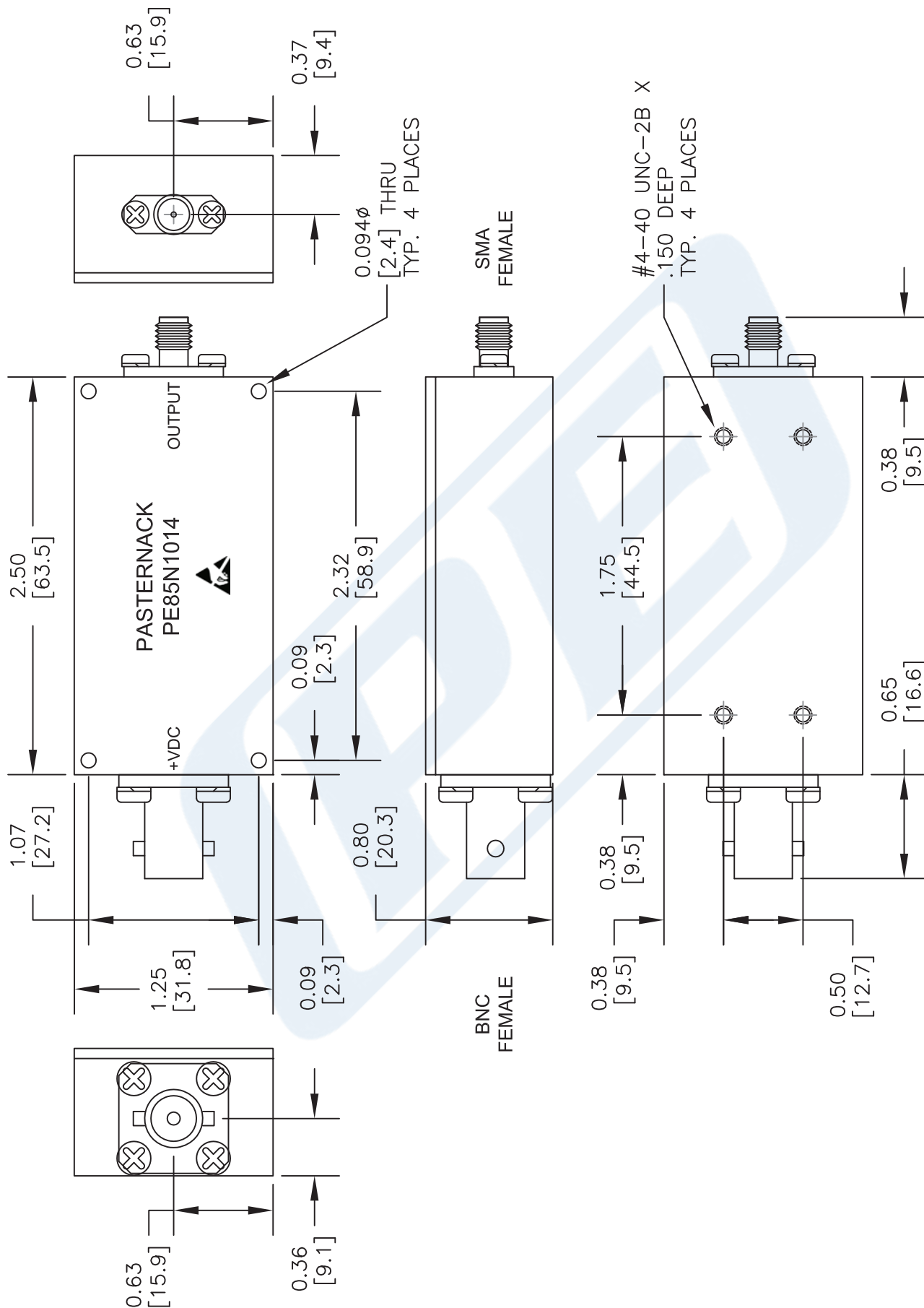
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

PE85N1014 CAD Drawing

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DWG TITLE

PE85N1014

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

PASTERNAK®
THE ENGINEER'S RF SOURCE
Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623
Phone: (949) 261-1920 | Fax: (949) 261-7451
Website: www.pasternack.com | E-Mail: sales@pasternack.com

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CAD FILE 111015

SCALE N/A

SIZE A

2233