



SMA Calibrated Noise Source Module, Output ENR of 30 dB, +28 VDC, 0.01 MHz to 2 GHz

Noise Generators Technical Data Sheet

PE85N1001

Features

- 10 KHz to 2000 MHz Bandwidth
- Calibrated Frequencies: 10
- 100
- 1000
- 2000 MHz
- High Output ENR 30 dB min
- Typical Flatness +/- 1.5 dB
- Excellent Stability
- Noise Output Temperature Variation: <0.01 dB/°C
- Noise Output Variation <0.1 dB/%V
- Rugged Package Design supports output Female SMA connector
- Designed to meet MIL-STD-202F environmental test conditions
- Internal Voltage Regulation

Applications

- Noise Figure Measurements
- Built-In Test equipment for signal strength calibrators and radar applications
- Automatic Test Equipment (ATE)
- Jamming
- Baseband Signal Simulation
- Additive White Gaussian Noise (AWGN) source for Error Rate Measurements
- Increase dynamic range of A/D Converters
- SATCOM for bit error rate (BER) and noise figure
- Can be used as a Jitter source.

Description

The PE85N1001 is a coaxial packaged Noise Source module which operates over a wide frequency range from 10 KHz to 2 GHz. The design is calibrated for 10, 100, 1000, and 2000 MHz frequencies and is ideal for Noise Figure measurements and a variety of built-in test applications. This model operates at +28 Vdc and features a high Output ENR level of 30 dB min, typical flatness across the entire frequency band is +/- 0.5 dB, and excellent stability. Performance is specified over -55°C to +85°C with Noise Output Temperature Variation <0.01 dB/°C, Noise Output Variation <0.1 dB/%V. The rugged package design supports an output Female SMA connector with an EMI/RFI filter voltage pin and ground tab. 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	10KHz		2	GHz
Impedance		50		Ohms
Output ENR		30		dB
Flatness		±1.5		dB
VSWR			3:1	
Bias Voltage 1	22	28	30	Volts
Input Current 1			20	mA
Calibration Points	10, 100, 1000, and 2000 MHz			

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Calibrated Noise Source Module, Output ENR of 30 dB, +28 VDC, 0.01 MHz to 2 GHz PE85N1001](#)



SMA Calibrated Noise Source Module, Output ENR
of 30 dB, +28 VDC, 0.01 MHz to 2 GHz

Noise Generators Technical Data Sheet

PE85N1001

Mechanical Specifications

Size

Length	1.25 in [31.75 mm]
Width/Dia.	0.75 in [19.05 mm]
Height	0.5 in [12.7 mm]
Weight	0.062 lbs [28.12 g]
Package Type	Connectorized Module

Connectors

DC Connector	Pin
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-55 to +85 deg C
Storage Range	-65 to +125 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:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Calibrated Noise Source Module, Output ENR of 30 dB, +28 VDC, 0.01 MHz to 2 GHz PE85N1001](#)

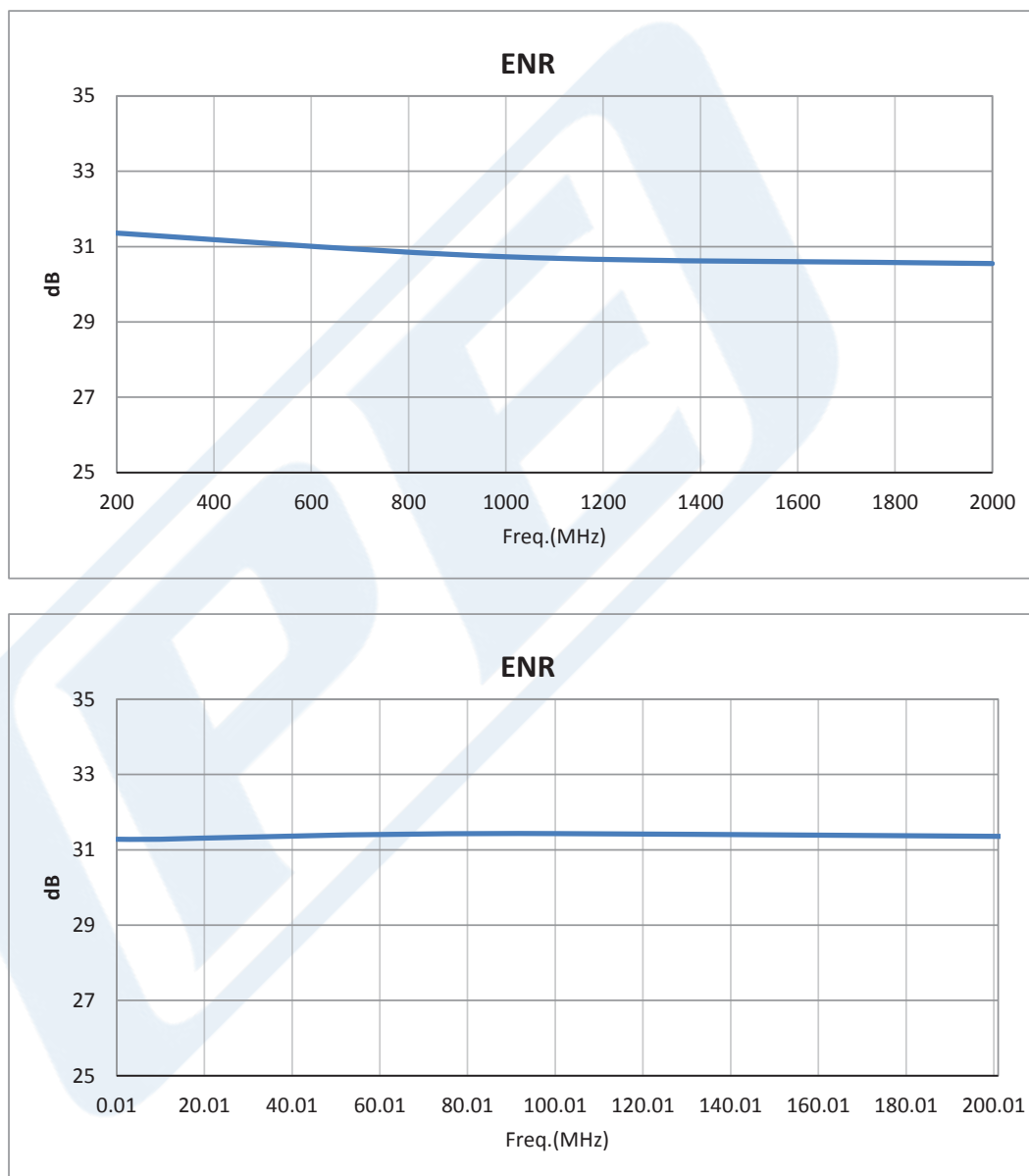


SMA Calibrated Noise Source Module, Output ENR
of 30 dB, +28 VDC, 0.01 MHz to 2 GHz

Noise Generators Technical Data Sheet

PE85N1001

Typical Performance Data



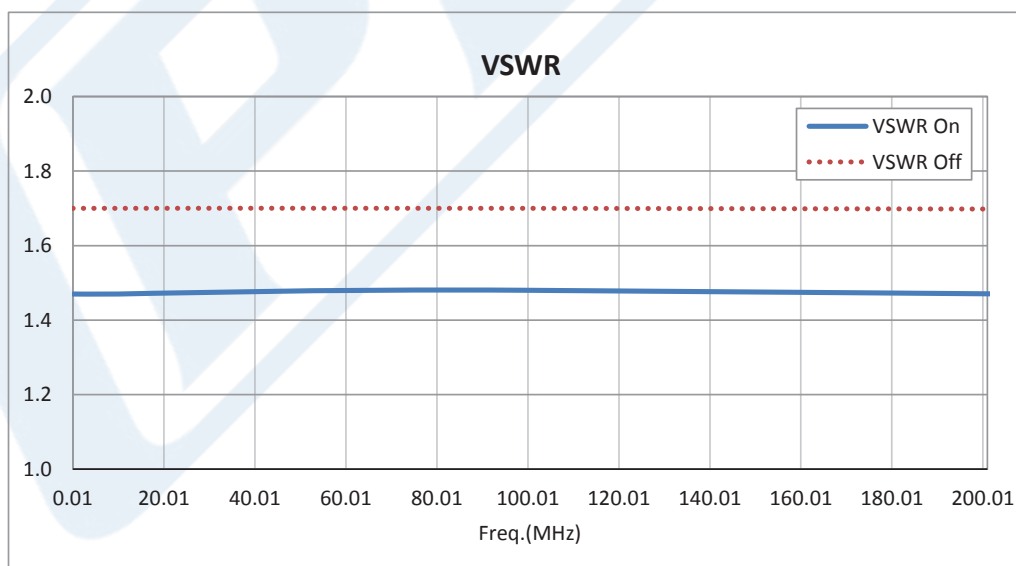
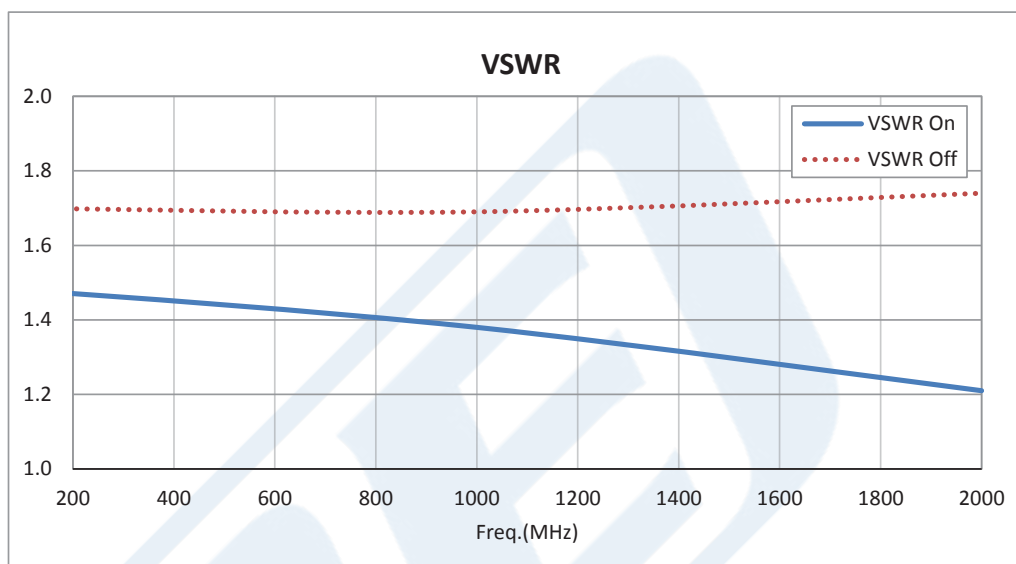
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Calibrated Noise Source Module, Output ENR of 30 dB, +28 VDC, 0.01 MHz to 2 GHz PE85N1001](#)



SMA Calibrated Noise Source Module, Output ENR of 30 dB, +28 VDC, 0.01 MHz to 2 GHz

Noise Generators Technical Data Sheet

PE85N1001



SMA Calibrated Noise Source Module, Output ENR of 30 dB, +28 VDC, 0.01 MHz to 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Calibrated Noise Source Module, Output ENR of 30 dB, +28 VDC, 0.01 MHz to 2 GHz PE85N1001](#)



SMA Calibrated Noise Source Module, Output ENR of 30 dB, +28 VDC, 0.01 MHz to 2 GHz

Noise Generators Technical Data Sheet

PE85N1001

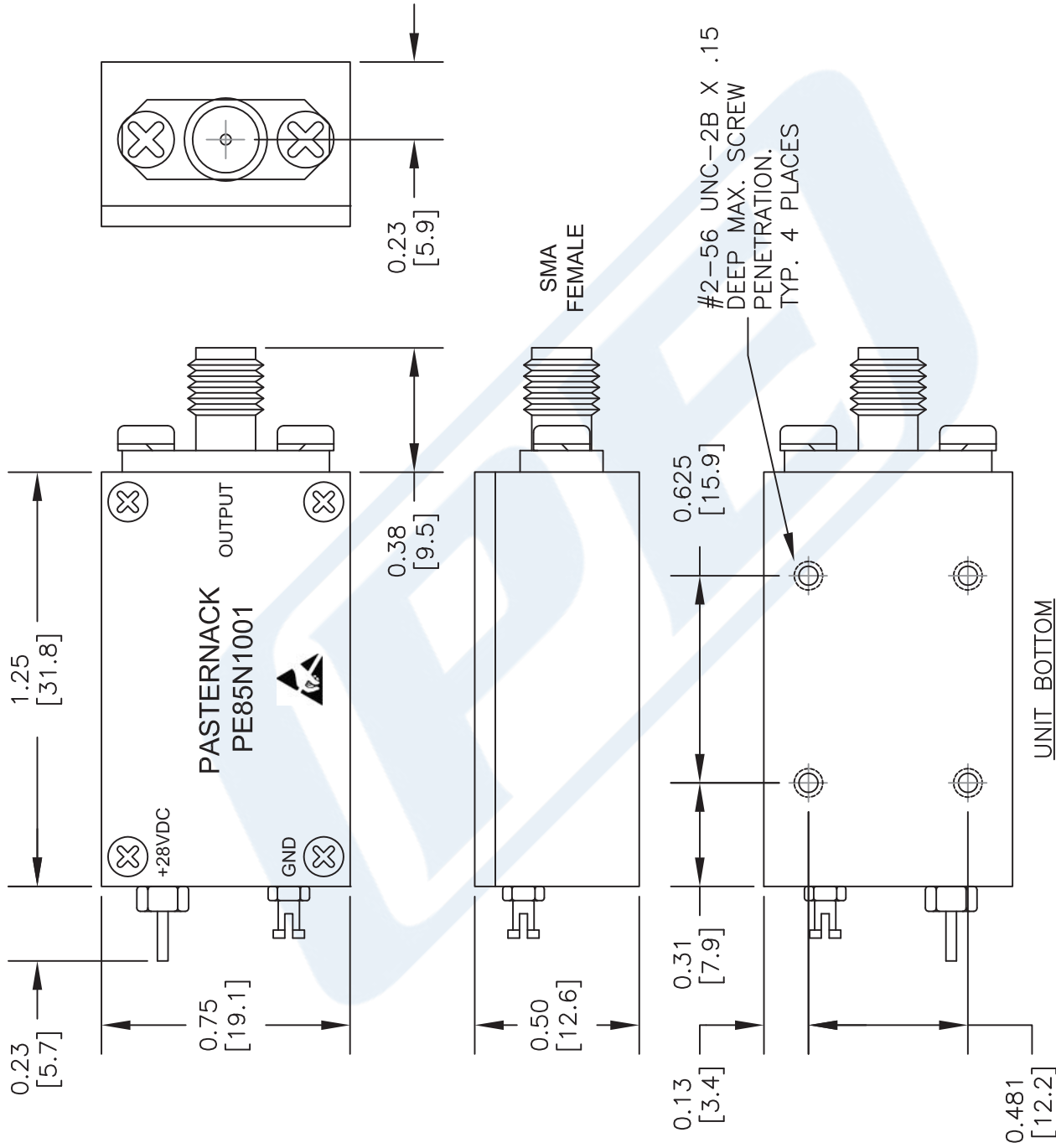
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Calibrated Noise Source Module, Output ENR of 30 dB, +28 VDC, 0.01 MHz to 2 GHz PE85N1001](https://www.pasternack.com/sma-calibrated-noise-source-enr-30-db-2-ghz-pe85n1001-p.aspx)

URL: <https://www.pasternack.com/sma-calibrated-noise-source-enr-30-db-2-ghz-pe85n1001-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.

PE85N1001 CAD Drawing

SMA Calibrated Noise Source Module, Output ENR of
30 dB, +28 VDC, 0.01 MHz to 2 GHz



DWG TITLE

PE85N1001

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].

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

FSCM NO. 53919

CAD FILE 110415

SCALE N/A

SIZE A

2233