



SMA Calibrated Noise Source Module, Output
ENR of 26 dB, +28 VDC, 12 GHz to 18 GHz

Noise Generators Technical Data Sheet

PE8509

Features

- 12 to 18 GHz Frequency Range
- Calibrated in 1 GHz Steps
- High Output ENR 26 to 32 dB
- Flatness ± 1 dB
- +28 VDC Operation
- SMA Female Voltage Bias
- SMA Male Output

Applications

- Noise Figure Measurements
- Built-In Test Equipment (BITE)
- Automated Test Equipment (ATE)
- Jamming
- Baseband Signal Simulation
- Additive White Gaussian Noise (AWGN) Source for Error Rate Measurements
- SATCOM Bit Error Rate (BER) and Noise Figure Measurements
- Jitter Source

Description

The PE8509 is a calibrated noise source module (also known as a noise generator) which operates over a wide frequency range from 12 to 18 GHz. Pasternack's noise source design is calibrated in 1 GHz increments and is ideal for noise figure measurements and a variety of built-in test applications. This noise source model operates at +28 Vdc and features a high output excess noise ratio (ENR) level of 26 to 32 dB. Typical flatness across the entire frequency band is ± 1 dB. The package design supports an input SMA female connector for DC biasing, and an output SMA male connector.

Electrical Specifications

RF Characteristics

Description	Minimum	Typical	Maximum	Units
Frequency Range	12		18	GHz
Impedance		50		Ohms
Output ENR	26		32	dB
Flatness		± 1		dB
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		10	25	mA
Rise/Fall Time			1	μ s
Calibration Points	1 GHz increments			

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 26 dB, +28 VDC, 12 GHz to 18 GHz PE8509](#)



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Mechanical Specifications

Size

Length	2.84 in [72.14 mm]
Width/Dia.	0.5 in [12.7 mm]
Height	0.5 in [12.7 mm]
Weight	0.075 lbs [34.02 g]

Connectors

DC Connector	SMA Female
Output Connector	SMA Male

Environmental Specifications

Temperature

Operating Range	-55 to +85 deg C
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Compliance Certifications (visit www.Pasternack.com for current document)

RoHS Compliant	
REACH Compliant	12/17/2015

Plotted and Other Data

Notes:

SMA Calibrated Noise Source Module, Output ENR of 26 dB, +28 VDC, 12 GHz to 18 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

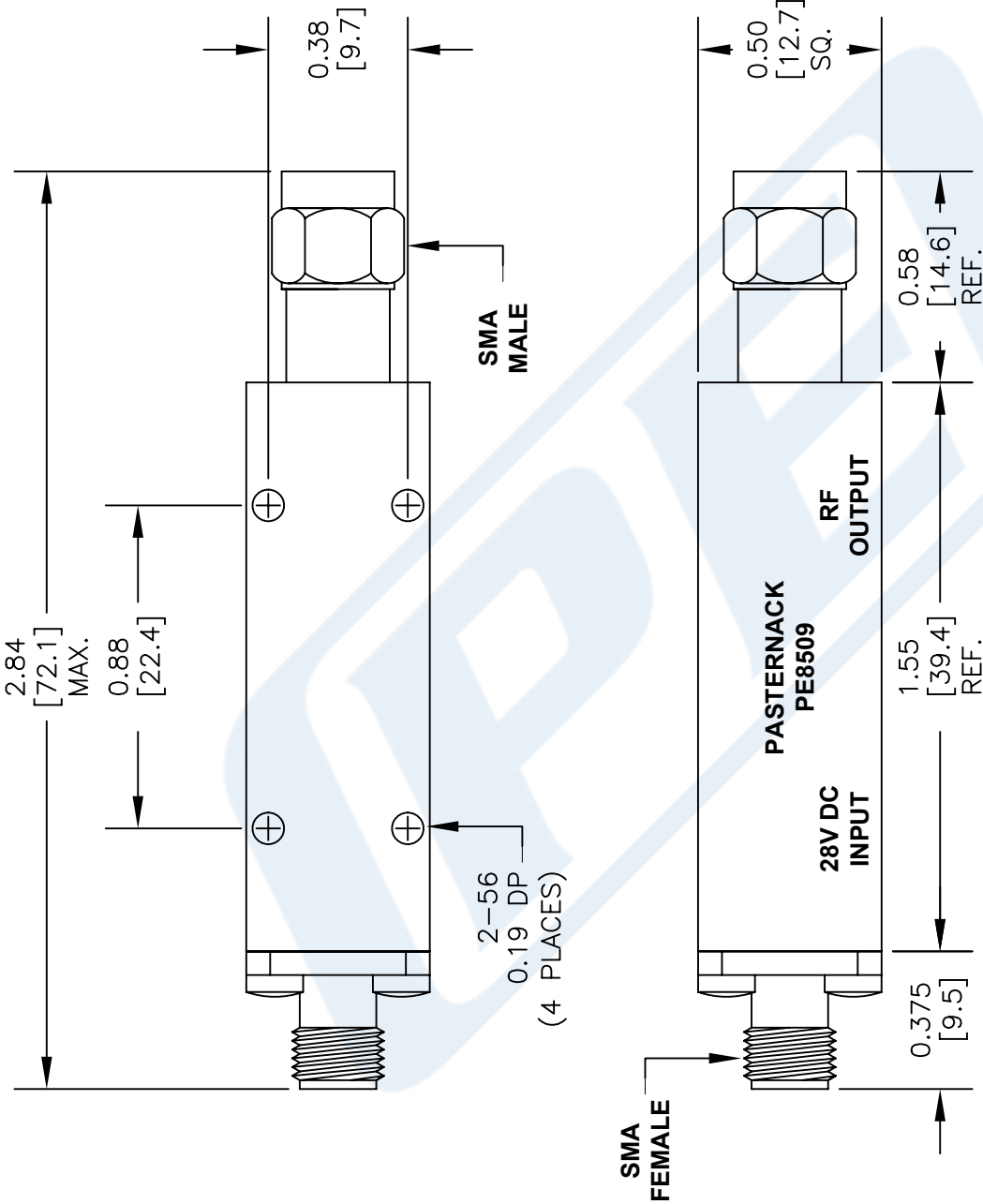
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Calibrated Noise Source Module, Output ENR of 26 dB, +28 VDC, 12 GHz to 18 GHz PE8509](https://www.pasternack.com/high-output-noise-generators-12-18-ghz-pe8509-p.aspx)

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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.

PE8509 CAD Drawing

SMA Calibrated Noise Source Module, Output ENR of 26 dB, +28 VDC, 12 GHz to 18 GHz



STANDARD TOLERANCES	
DECIMAL	±0.01
.XX	±0.005
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

Frequency (GHz)	12	13	14	15	16	17	18
ENR (dB) @+28Vdc	27	26.3	26.4	26.2	26.3	27.1	26.8

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DWG TITLE
PE8509

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].

FSCM NO. 53919

CAD FILE 071916

SCALE N/A

SIZE A

3045