



## SMA Amplified Noise Source Module, Output Pout of 0 dBm, +15 VDC, 10 MHz to 3 GHz

### Noise Generators Technical Data Sheet

PE85N1012

#### Features

- 10 MHz to 3 GHz Bandwidth
- High Crest Factor Design
- Output Power: 0 dBm
- Typical Flatness: +/- 2.0 dB
- Noise Power: -95 dBm/Hz
- SMA Female Output Connector
- Designed to meet MIL-STD-202F environmental test conditions
- Amplified Noise Source
- 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 PE85N1012 is a coaxial packaged Amplified Noise Source module which operates over a wide frequency range from 10 MHz to 3 GHz. The high Crest Factor design generates an output power level of 0 dBm with +/- 2 dB typical flatness and is ideal for Bit Error Rate (BER) testing for wireless test applications, as well as for Noise Figure measurements and a variety of built-in test applications. Noise power is -95 dBm/Hz and the temperature coefficient is 0.025 dB/°C. The input voltage is +15 Vdc which is internally regulated and the operational temperature range is -40°C to +100°C. The rugged package 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	0.01		3	GHz
Impedance		50		Ohms
Flatness		±2		dB
Output Variation vs Temperature		0.025		dB/deg C
Output Power		0		dBm
Output Power Spectral Density		-95		dBm/Hz
Bias Voltage 1	14	15	18	Volts
Input Current 1			300	mA

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Amplified Noise Source Module, Output Pout of 0 dBm, +15 VDC, 10 MHz to 3 GHz PE85N1012](#)



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### Mechanical Specifications

**Size**

Length	3.25 in [82.55 mm]
Width/Dia.	0.98 in [24.89 mm]
Height	0.5 in [12.7 mm]
Weight	0.1445 lbs [65.54 g]
Package Type	Connectorized Module

**Connectors**

DC Connector	Pin
Output Connector	SMA Female

### Environmental Specifications

**Temperature**

Operating Range	-40 to +100 deg C
Storage Range	-55 to +150 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 Amplified Noise Source Module, Output Pout of 0 dBm, +15 VDC, 10 MHz to 3 GHz PE85N1012](#)

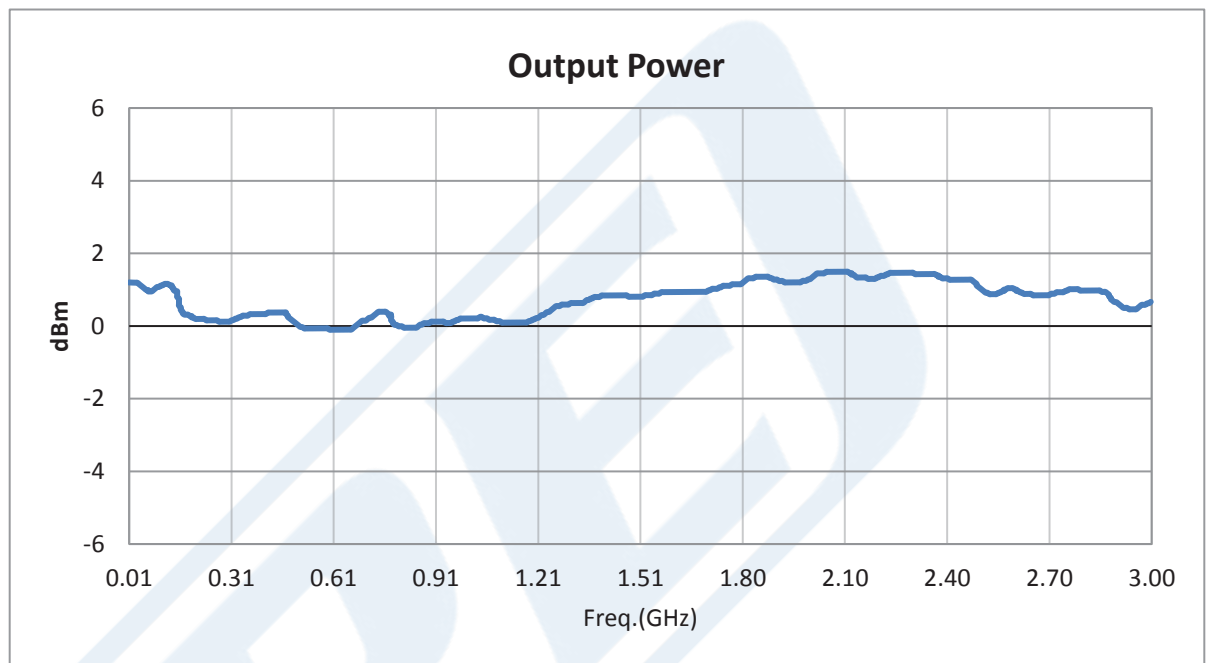


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### Typical Performance Data



SMA Amplified Noise Source Module, Output Pout of 0 dBm, +15 VDC, 10 MHz to 3 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.

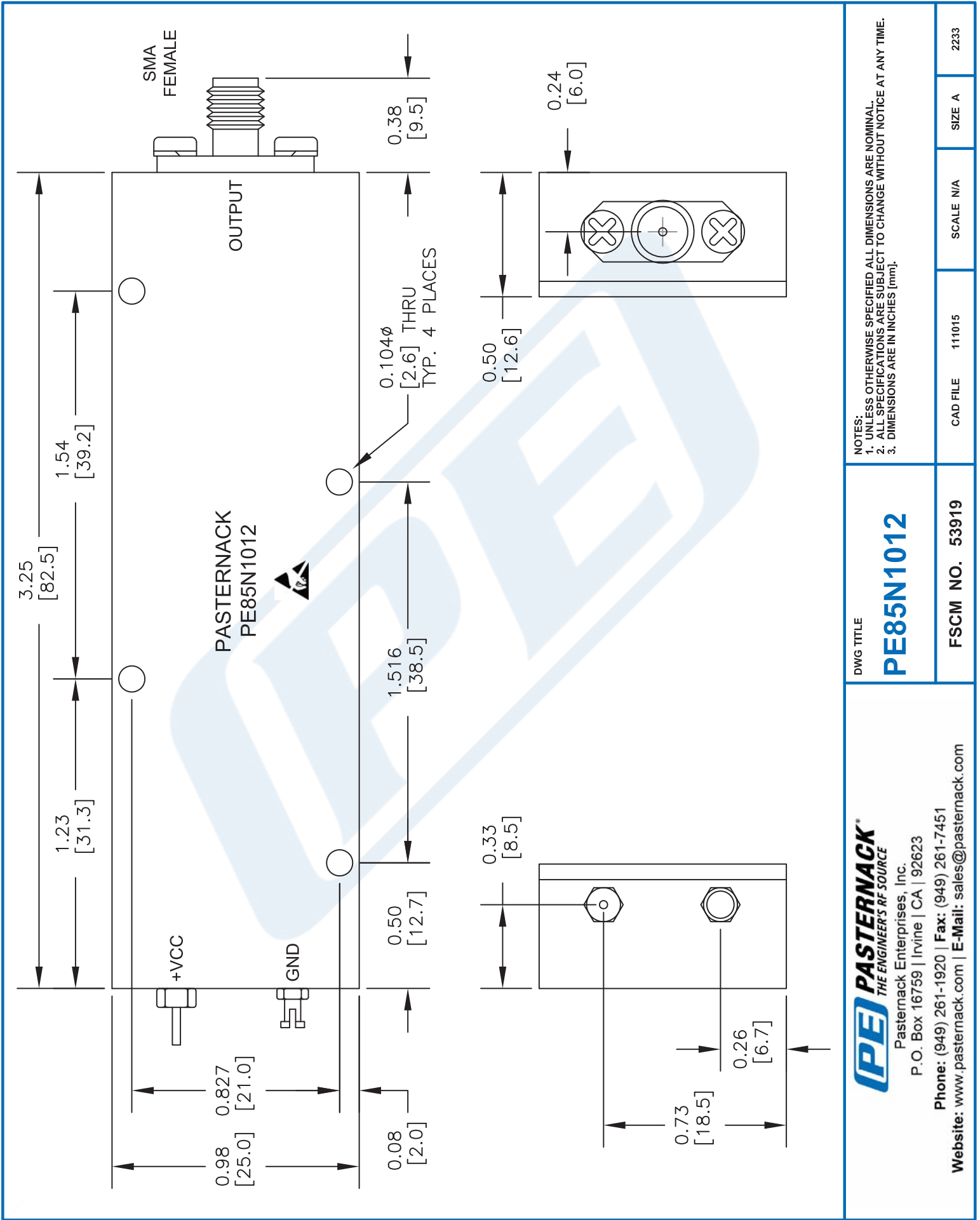
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

# PE85N1012 CAD Drawing

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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].

DWG TITLE  
**PE85N1012**

FSCM NO. 53919

CAD FILE 111015

SCALE N/A

SIZE A

2233

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 THE ENGINEER'S RF SOURCE

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