



0 to 100 dB Step Attenuator with a 1 dB Step N Female Interface  
 Rated Up to 3 GHz and Up to 2 Watts in a Dial Design

## RF Step Attenuators Technical Data Sheet

**PE70A1033**

### Features

- 1 dB steps from 0 to 100 dB Attenuation
- Rotary Dial Control
- N Female Connectors
- -20°C to +85°C Operating Temperature
- ±1.5 dB Attenuation Accuracy Max

### Applications

- Instrumentation
- Precision Measurements
- Prototyping and Characterization
- Production Systems

### Description

The PE70A1033 is a Step Attenuator that has 100 dB of total attenuation with 1 dB step size and rotary dial design across a frequency range from DC to 3 GHz. The design is tried and true technology that offers exceptional performance characteristics that include 1.2 dB maximum insertion loss, and a maximum VSWR of 1.5:1 at 3 GHz. The design also features excellent attenuation accuracy with ±1.5 dB max at 3 GHz. The Aluminum alloy package has N Female connectors, and operates within the temperature range of -20°C to 85°C.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
Impedance		50		Ohms
Insertion Loss			1.2	dB
Attenuation Value		0 to 100		dB
Step Size		1		dB
Step Type		Dial		
Input Power (CW)			2	Watts
Input Power, Peak			100	Watts
VSWR			1.5:1	

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Range	DC to 1	1 to 2	2 to 3			GHz
Insertion Loss	0.6	1	1.2			dB
VSWR	1.5:1	1.5:1	1.5:1			
Attenuation Accuracy	0.3	0.8	1.5			dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [0 to 100 dB Step Attenuator with a 1 dB Step N Female Interface Rated Up to 3 GHz and Up to 2 Watts in a Dial Design PE70A1033](#)



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### Mechanical Specifications

#### Size

Length	4.72 in [119.89 mm]
Width	1.18 in [29.97 mm]
Height	2.1 in [53.34 mm]
Weight	1 lbs [453.59 g]

### Connectors

Description	Connector 1	Connector 2
Type	N Female	N Female

### Environmental Specifications

#### Temperature

Operating Range	-20 to 85 deg C
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**Compliance Certifications** (see [product page](#) for current document)

### Plotted and Other Data

Notes:

0 to 100 dB Step Attenuator with a 1 dB Step N Female Interface Rated Up to 3 GHz and Up to 2 Watts in a Dial Design 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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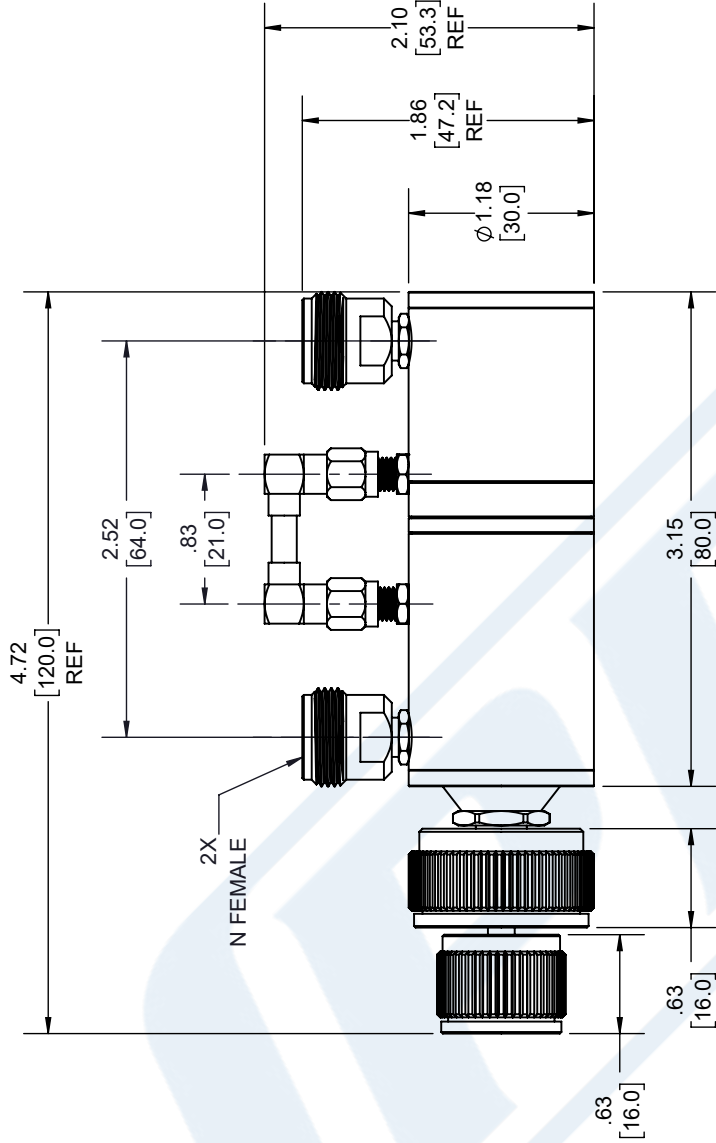
URL: <https://www.pasternack.com/100db-step-n-female-n-female-2-watts-attenuator-pe70a1033-p.aspx>

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.

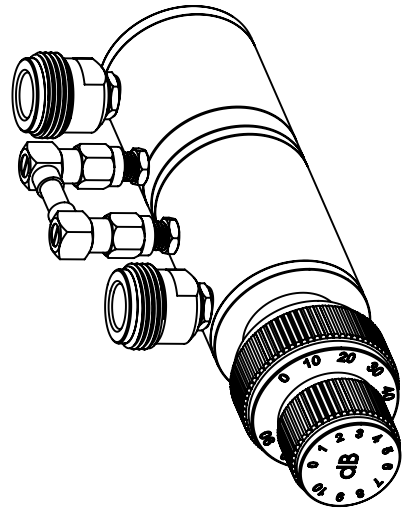
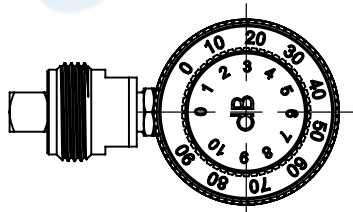
# PE70A1033 CAD Drawing

0 to 100 dB Step Attenuator with a 1 dB Step N Female Interface  
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	4/14/2022	S.PONG



2X  
N FEMALE



UNLESS OTHERWISE SPECIFIED  
 LEADING DIMENSIONS ARE INCHES  
 DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:  
 .X = ±.2 [5.08] FRACTIONS ± 1/32  
 .XX = ±.02 [ .51] ANGLES ± 1°  
 .XXX = ±.005 [ .13] CABLE LENGTH (L), TOLERANCES:  
 L ≤ 12 [305] = +1 [25] / -0  
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
 300 [7620] < L = +5% / -0

ALL DIMENSIONS SHOWN  
 ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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ITEM NO. PE70A1033

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