

0 to 90 dB Push Button Step Attenuator,  
50 Ohm SMA Female To 50 Ohm SMA Female With  
1 dB Step Rated To 2 Watts Up To 3 GHz

## RF Step Attenuators Technical Data Sheet

**PE70A1041S**

### Features

- 1, 2, 4, 8, 16, 20, 20, and 20 dB step buttons
- 0 to 90 dB Attenuation
- 4% Attenuation Accuracy Maximum
- SMA Female Connectors
- Maximum Power 2 Watts (CW)

### Applications

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

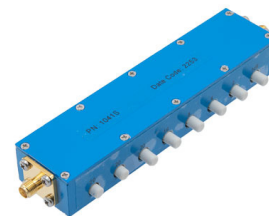
### Description

The PE70A1041S is a Step Attenuator that has 90 dB of total attenuation with 1, 2, 4, 8, 16, 20, 20, and 20 dB push button steps, designed across the frequency range of DC to 3 GHz. Select button for desired attenuation level, total attenuation is the sum of all buttons selected. The design is tried and true technology that offers exceptional performance characteristics that include 3.5 dB maximum insertion loss, and a maximum VSWR of 1.5:1. The design also features excellent attenuation accuracy with 4% maximum. The Nickel plated Brass package has SMA 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			3.5	dB
Attenuation Value		0 to 90		dB
Step Size		1		dB
Step Type		Push Button		
Accuracy Statement		±2dB (<50dB Atten) ±4%dB (>50dB Atten)		
Input Power (CW)			2	Watts
Input Power, Peak 5 μs pulse width 2% duty cycle			100	Watts
VSWR			1.5:1	

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [0 to 90 dB Push Button Step Attenuator, 50 Ohm SMA Female To 50 Ohm SMA Female With 1 dB Step Rated To 2 Watts Up To 3 GHz PE70A1041S](#)



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### Mechanical Specifications

#### Size

Length	5.709 in [145.01 mm]
Width	0.787 in [19.99 mm]
Height	1.398 in [35.51 mm]
Weight	0.375 lbs [170.1 g]

Body Material and Plating

Aluminum, Paint

### Connectors

Description	Connector 1	Connector 2
Type	SMA Female	SMA Female
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Body Material and Plating	Brass, Nickel	Brass, Nickel

### Environmental Specifications

#### Temperature

Operating Range -20 to 85 deg C

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

### Plotted and Other Data

Notes:

0 to 90 dB Push Button Step Attenuator, 50 Ohm SMA Female To 50 Ohm SMA Female With 1 dB Step Rated To 2 Watts Up 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [0 to 90 dB Push Button Step Attenuator, 50 Ohm SMA Female To 50 Ohm SMA Female With 1 dB Step Rated To 2 Watts Up To 3 GHz PE70A1041S](#)

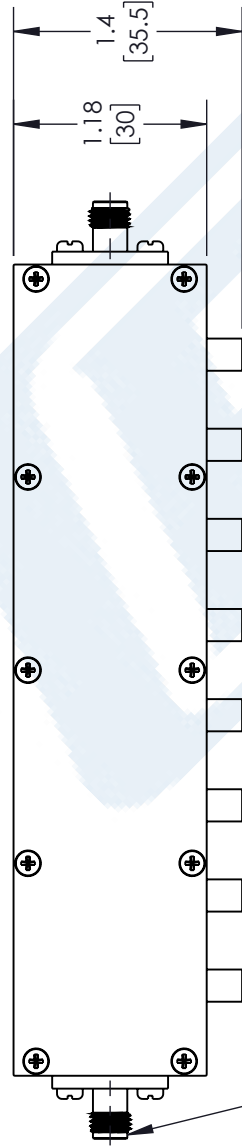
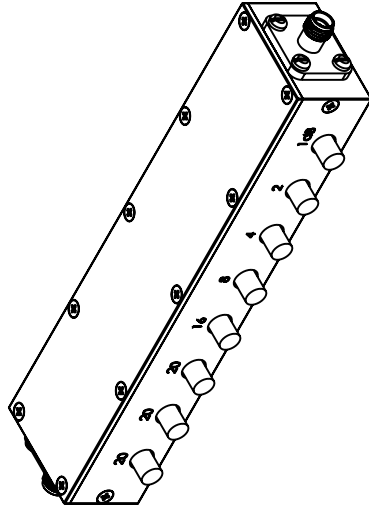
URL: <https://www.pasternack.com/90db-step-sma-female-sma-female-2-watts-attenuator-pe70a1041s-p.aspx>

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.

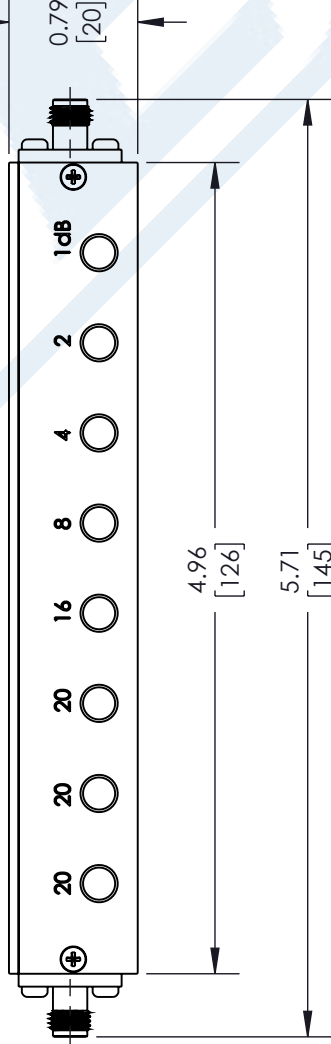
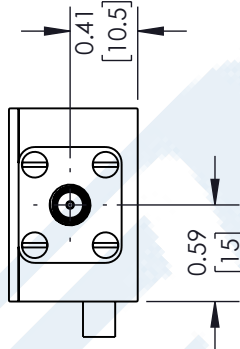
# PE70A1041S CAD Drawing

0 to 90 dB Push Button Step Attenuator, 50 Ohm SMA Female To 50 Ohm  
SMA Female With 1 dB Step Rated To 2 Watts Up To 3 GHz

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	12/21/22	SPONG



2X SMA FEMALE  
CONNECTOR



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

TOLERANCES:  
X = ± 2 [508] FRACTIONS  
.XX = ± 0.02 [51] ± 1/32  
.XXX = ± 0.005 [13] ANGLES ± 1°  
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.



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SCALE N/A  
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