



# 1 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 5 Watts Up to 18 GHz

## RF Fixed Attenuators Technical Data Sheet

PE7013-1

### Features

- Bidirectional
- DC to 18 GHz Frequency Range
- Attenuation 1±0.3 dB
- Max Power 5 Watts (CW)
- VSWR < 1.35:1

### Applications

- Instrumentation
- Precision measurements
- Prototyping and characterization
- Production systems

### Description

Pasternack carries a wide range of fixed attenuators with a broad selection of attenuation levels, frequency ranges, and power dissipation ranges. RF microwave attenuators (also known as RF pads) lower the amplitude of a signal (attenuate) a known amount and can be used in a wide variety of applications. These attenuator pads are used when a signal needs to be reduced to protect measurement equipment or other circuitry, to extend the range of power meters and amplifiers, and to impedance match circuits by reducing the VSWR seen by adjacent components. RF attenuators can prevent signal overload in amplifiers, receivers and detectors, adjusting the signal level to a range that is optimal.

Few RF components are as commonly used as fixed coaxial attenuators, and Pasternack carries one of the largest in-stock varieties and ships them same day. The 1 dB Fixed Attenuator PE7013-1 is rated to 5 Watts and operates from DC to 18 GHz. The versatile coaxial package uses SMA male to SMA female connectors and is also REACH and RoHS compliant. The Black Anodized Aluminum Heatsink body allows for efficient heat dissipation under high power usage conditions.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Nominal Attenuation		1		dB
Attenuation Accuracy		±0.3		dB
VSWR			1.35:1	
Input Power, CW derated linearly to 1W at +125°C			5	Watts

### Mechanical Specifications

#### Size

Length	1.2 in [30.48 mm]
Width/Diameter	0.61 in [15.49 mm]
Weight	0.02 lbs [9.07 g]
Body Material and Plating	Black Anodized Aluminum Heatsink

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 5 Watts Up to 18 GHz PE7013-1](#)



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### Configuration

Design Fixed, Bidirectional  
 Package Style Connectorized Module

### Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Female
Connector Specification	MIL-STD-348	MIL-STD-348
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Coupling Nut Material and Plating	Passivated Stainless Steel	
Hex Size	5/16 in.	
Torque	8 in-lbs 0.9 Nm	
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

### Environmental Specifications

#### Temperature

Operating Range -65 to +125 deg C

### Compliance Certifications (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

RoHS Compliant  
 REACH Compliant 12/17/2015

### Plotted and Other Data

Notes:

1 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 5 Watts Up 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.

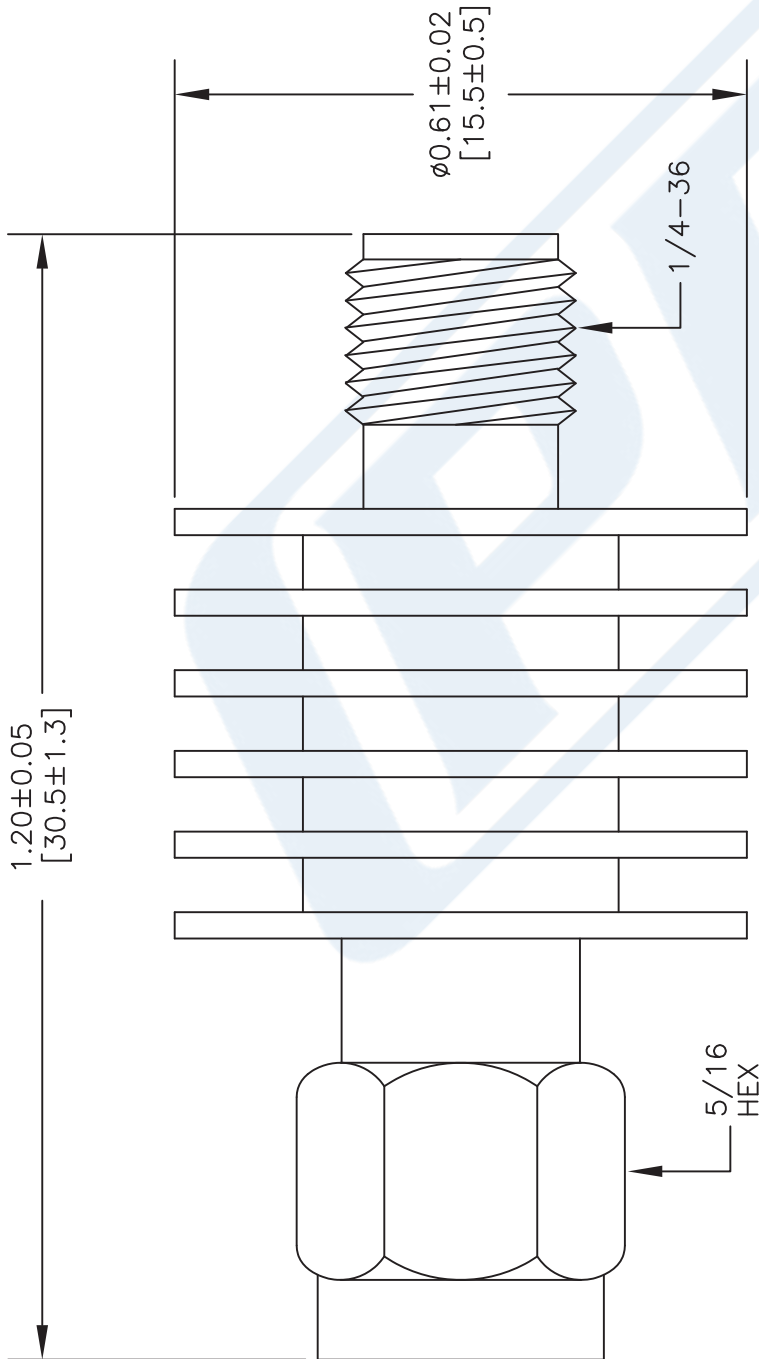
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 5 Watts Up to 18 GHz PE7013-1](http://www.Pasternack.com/1db-fixed-sma-female-sma-male-5-watts-attenuator-pe7013-1-p.aspx)

URL: <http://www.pasternack.com/1db-fixed-sma-female-sma-male-5-watts-attenuator-pe7013-1-p.aspx>

# PE7013-1 CAD Drawing

1 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 5 Watts Up to 18 GHz

P/N	ATTEN.	FIGURE
PE7013-1	1 dB	1
PE7013-2	2 dB	1
PE7013-3	3 dB	1
PE7013-6	6 dB	1
PE7013-10	10 dB	1
PE7013-20	20 dB	1
PE7013-30	30 dB	1
PE7013-40	40 dB	1



SMA FEMALE

FIGURE 1

SMA MALE

### STANDARD TOLERANCES

.X ±0.2  
.XX ±0.1  
.XXX ±0.05

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

DWG TITLE

**PE7013**

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].

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FSCM NO. 53919

CAD FILE 022516

SCALE N/A

SIZE A

3045