PASTERNACK®
THE ENGINEER'S RF SOURCE



# 2 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 PE7013-2

### Features

- Bidirectional
- DC to 18 GHz Frequency Range
- Attenuation 2±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 2 dB Fixed Attenuator PE7013-2 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 | | 2 | | dB |
| Attenuation Accuracy | | ±0.3 | | dB |
| VSWR | | | 1.35:1 | |
| Input Power, CW<br>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: 2 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 5 Watts Up to 18 GHz PE7013-2

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
**Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
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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 for current document)

| | |
|---|---|
| RoHS Compliant | |
| REACH Compliant | 12/17/2015 |

### Plotted and Other Data

Notes:

2 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.

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URL: http://www.pasternack.com/2db-fixed-sma-female-sma-male-5-watts-attenuator-pe7013-2-p.aspx

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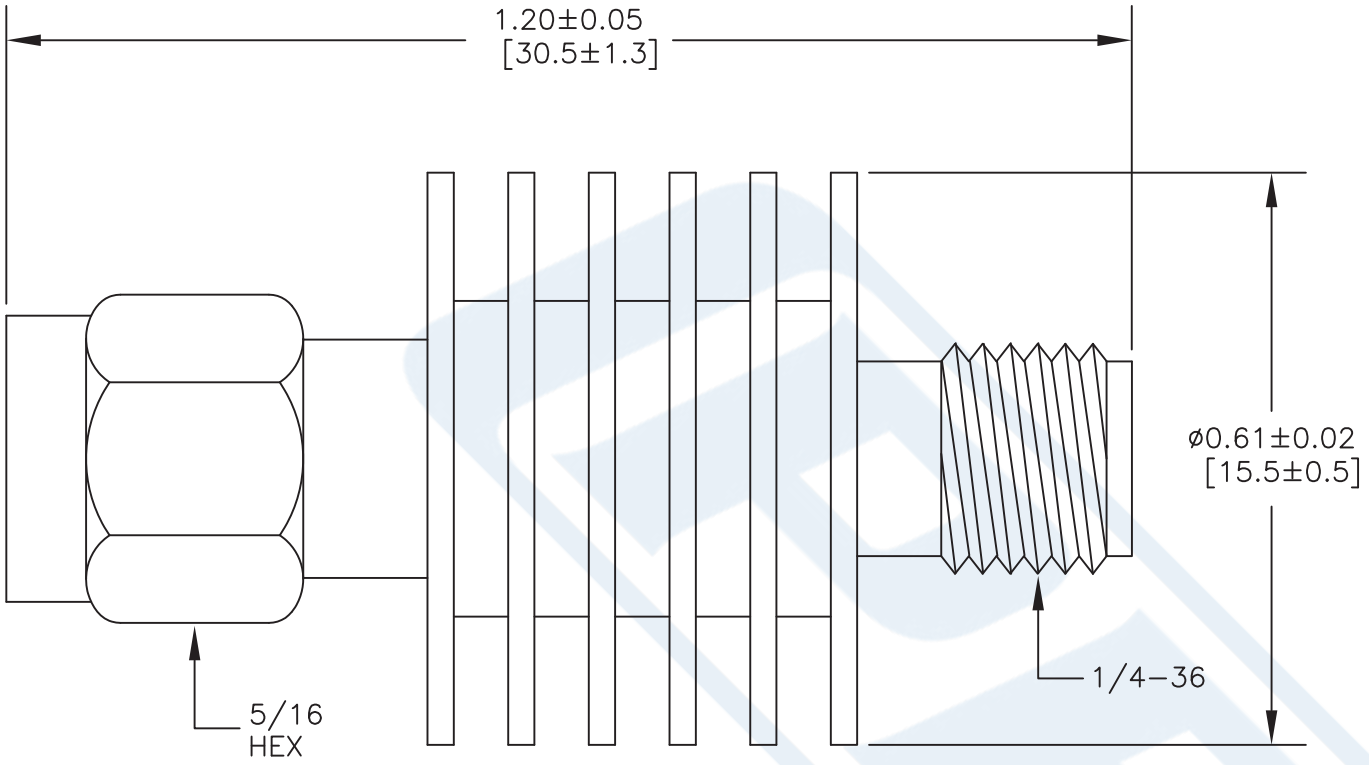
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# PE7013-2 CAD Drawing

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




SMA MALE FIGURE 1 SMA FEMALE

| 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 |

| STANDARD TOLERANCES | |
|---|---|
| .X | ±0.2 |
| .XX | ±0.1 |
| .XXX | ±0.05 |

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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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].

| FSCM NO. 53919 | CAD FILE 022516 | SCALE N/A | SIZE A | 3045 |
|---|---|---|---|---|