



1.5 to 70 dB Step Attenuator with a  
1 dB Step SMA Female Interface Rated Up to  
3 GHz and Up to 2 Watts in a Dial Design

## RF Step Attenuators Technical Data Sheet

**PE70A1038**

### Features

- 1 dB steps from 1.5 to 70 dB Attenuation
- Rotary Dial Control
- SMA 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 PE70A1038 is a Step Attenuator that has 70 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 1.5 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 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    |         |           | 1.5     | dB    |
| Attenuation Value |         | 1.5 to 70 |         | 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      | 1.5    |    |    | dB    |
| VSWR                 | 1.3:1   | 1.4:1  | 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: [1.5 to 70 dB Step Attenuator with a 1 dB Step SMA Female Interface Rated Up to 3 GHz and Up to 2 Watts in a Dial Design PE70A1038](#)



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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 | 0.9 lbs [408.23 g]  |

### Connectors

| Description | Connector 1 | Connector 2 |
|-------------|-------------|-------------|
| Type        | SMA Female  | SMA Female  |

### Environmental Specifications

#### Temperature

|                 |                 |
|-----------------|-----------------|
| Operating Range | -20 to 85 deg C |
|-----------------|-----------------|

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

### Plotted and Other Data

Notes:

1.5 to 70 dB Step Attenuator with a 1 dB Step SMA 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/70db-step-sma-female-sma-female-2-watts-attenuator-pe70a1038-p.aspx>

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