



## 0 to 10 dB Rotary Step Attenuator, BNC Female to BNC Female With 1 dB Step Rated to 2 Watts Up to 2.2 GHz

### RF Step Attenuators Technical Data Sheet

PE70A1024

#### Features

- 1 dB steps from 0 to 10 dB Attenuation
- Rotary Dial Control
- $\pm 0.4$  dB Maximum Attenuation Accuracy
- BNC Female Connectors
- $-20^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$  Operating Temperature

#### Applications

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

#### Description

The PE70A1024 is a Step Attenuator that has 10 dB of total attenuation with 1 dB step size and rotary dial design across a frequency range from DC to 2.2 GHz. The design is tried and true technology that offers exceptional performance characteristics that include 0.4 dB maximum insertion loss, and a maximum VSWR of 1.4:1 at 2.2 GHz. The design also features excellent attenuation accuracy with  $\pm 0.4$  dB typical at 2.2 GHz. The Chem film Aluminum alloy package has BNC Female connectors, and operates within the temperature range of  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .

#### Electrical Specifications

| Description  | Minimum | Typical | Maximum | Units  |
|--|---------|---------|---------|--------|
| Frequency Range                                    | DC      |         | 2.2     | GHz    |
| Impedance  |         | 50      |         | Ohms   |
| Insertion Loss                                     |         |         | 0.4     | dB     |
| Attenuation Value                                  |         | 0 to 10 |         | dB     |
| Step Size  |         | 1       |         | dB     |
| Step Type  |         | Rotary  |         |        |
| Input Power  |         |         | 2       | Watts  |
| Input Power, Peak<br>1 $\mu\text{sec}$ Pulse Width |         |         | 1       | KWatts |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [0 to 10 dB Rotary Step Attenuator, BNC Female to BNC Female With 1 dB Step Rated to 2 Watts Up to 2.2 GHz PE70A1024](#)



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### Specifications by Frequency

| Description          | F1      | F2       | F3 | F4 | F5 | Units |
|----------------------|---------|----------|----|----|----|-------|
| Range                | DC to 1 | 1 to 2.2 |    |    |    | GHz   |
| Insertion Loss       | 0.2     | 0.4      |    |    |    | dB    |
| VSWR                 | 1.2:1   | 1.4:1    |    |    |    |       |
| Attenuation Accuracy | 0.2     | 0.4      |    |    |    | dB    |

Electrical Specification Notes:  
Specs by Frequency are maximum values

### Mechanical Specifications

|                           |                      |
|---------------------------|----------------------|
| <b>Size</b>               |                      |
| Length                    | 2 in [50.8 mm]       |
| Width                     | 1.5 in [38.1 mm]     |
| Weight                    | 0.452 lbs [205.02 g] |
| Body Material and Plating | Aluminum, Chem Film  |

### Connectors

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

### Environmental Specifications

|                    |                 |
|--------------------|-----------------|
| <b>Temperature</b> |                 |
| Operating Range    | -20 to 85 deg C |

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

### Plotted and Other Data

Notes:

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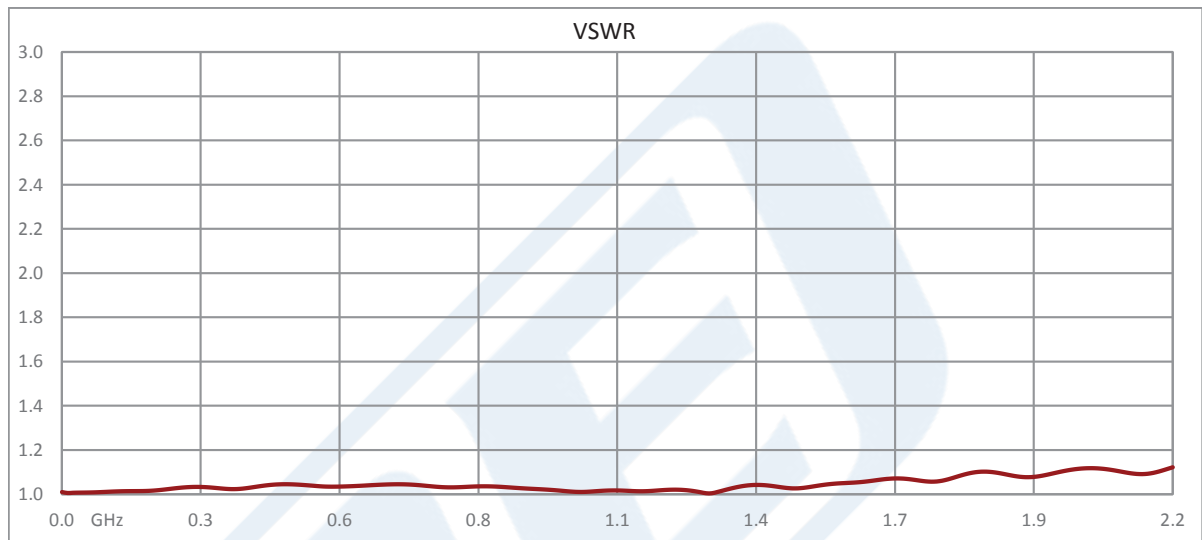


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Typical Performance Data



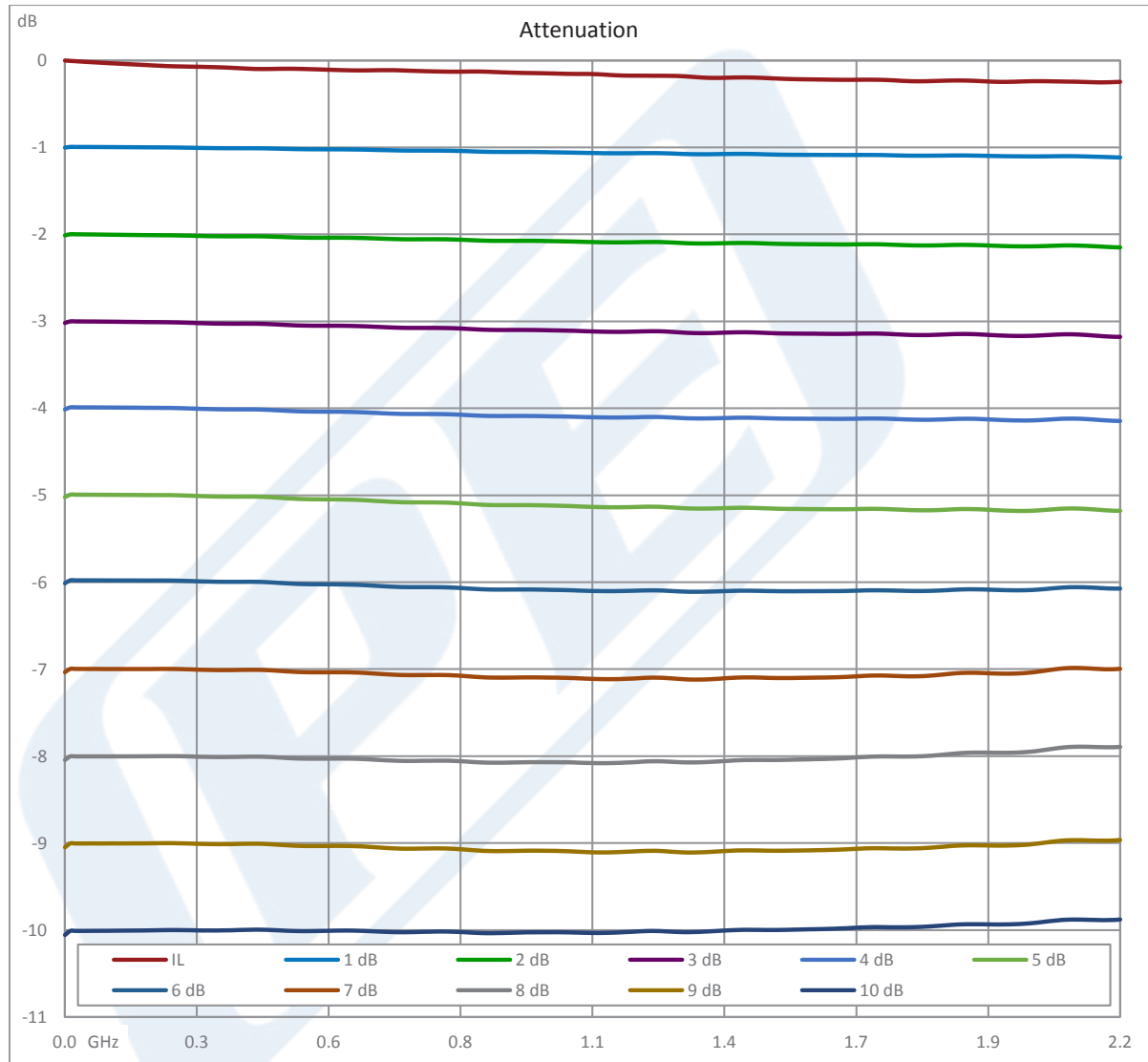
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0 to 10 dB Rotary Step Attenuator, BNC Female to BNC Female With 1 dB Step Rated to 2 Watts Up to 2.2 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

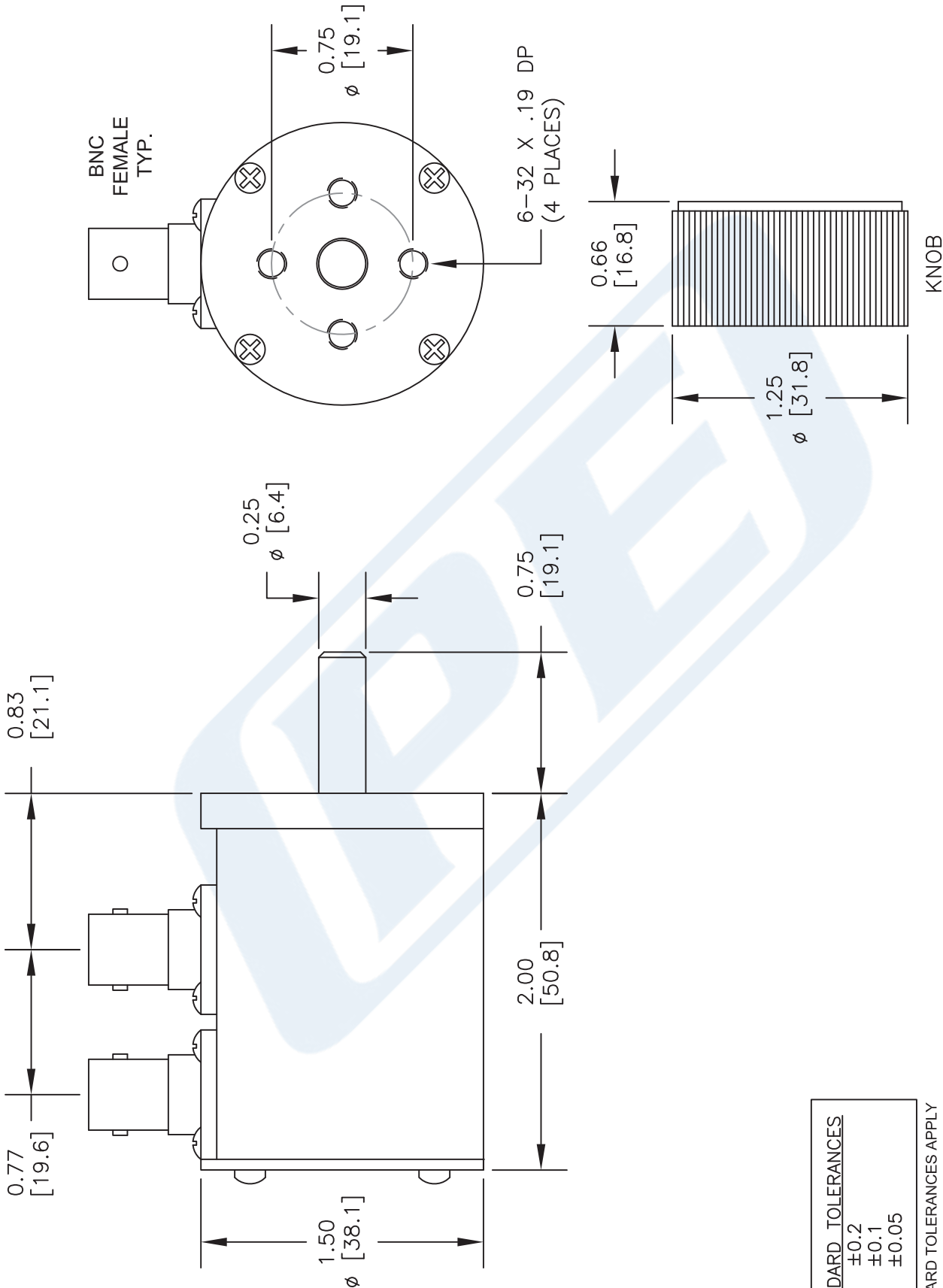
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [0 to 10 dB Rotary Step Attenuator, BNC Female to BNC Female With 1 dB Step Rated to 2 Watts Up to 2.2 GHz PE70A1024](https://www.pasternack.com/10db-step-bnc-female-bnc-female-2-watts-attenuator-pe70a1024-p.aspx)

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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.

# PE70A1024 CAD Drawing

0 to 10 dB Rotary Step Attenuator, BNC Female to BNC Female  
With 1 dB Step Rated to 2 Watts Up to 2.2 GHz



## 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

**PE70A1024**

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].

CAGE CODE 53919

CAD FILE 121316

SCALE N/A

SIZE A

2233