



## 6 dB Fixed Attenuator, SMA Male to SMA Female Passivated Stainless Steel Body Rated to 2 Watts Up to 6 GHz

### RF Fixed Attenuators Technical Data Sheet

**PE7162-6**

#### Features

- Bidirectional
- DC to 6 GHz Frequency Range
- Attenuation  $6 \pm 0.6$  dB
- Max Power 2 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 6 dB Fixed Attenuator PE7162-6 is rated to 2 Watts and operates from DC to 6 GHz. The versatile coaxial package uses SMA male to SMA female connectors and is also REACH and RoHS compliant.

#### Electrical Specifications

| Description                       | Minimum | Typical   | Maximum | Units |
|-----------------------------------|---------|-----------|---------|-------|
| Frequency Range                   | DC      |           | 6       | GHz   |
| Impedance                         |         | 50        |         | Ohms  |
| Nominal Attenuation               |         | 6         |         | dB    |
| Attenuation Accuracy              |         | $\pm 0.6$ |         | dB    |
| VSWR                              |         |           | 1.35:1  |       |
| Input Power, CW                   |         |           | 2       | Watts |
| derated linearly to 1.1W at +85°C |         |           |         |       |

#### Specifications by Frequency

| Description | F1      | F2     | F3 | F4 | F5 | Units |
|-------------|---------|--------|----|----|----|-------|
| Range       | DC to 4 | 4 to 6 |    |    |    | GHz   |
| VSWR, Max   | 1.2:1   | 1.35:1 |    |    |    |       |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [6 dB Fixed Attenuator, SMA Male to SMA Female Passivated Stainless Steel Body Rated to 2 Watts Up to 6 GHz PE7162-6](#)



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### Mechanical Specifications

#### Size

|                           |                            |
|---------------------------|----------------------------|
| Length                    | 0.86 in [21.84 mm]         |
| Width/Diameter            | 0.312 in [7.92 mm]         |
| Weight                    | 0.009 lbs [4.08 g]         |
| Body Material and Plating | Passivated Stainless Steel |

#### 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 inch                  |                            |
| Torque                            | 8 in-lbs 0.9 Nm            |                            |
| Body Material and Plating         | Passivated Stainless Steel | Passivated Stainless Steel |

### Environmental Specifications

#### Temperature

|                 |                  |
|-----------------|------------------|
| Operating Range | -20 to +85 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:

6 dB Fixed Attenuator, SMA Male to SMA Female Passivated Stainless Steel Body Rated to 2 Watts Up to 6 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: [6 dB Fixed Attenuator, SMA Male to SMA Female Passivated Stainless Steel Body Rated to 2 Watts Up to 6 GHz PE7162-6](http://www.Pasternack.com/6db-fixed-sma-female-sma-male-2-watts-attenuator-pe7162-6-p.aspx)

URL: <http://www.pasternack.com/6db-fixed-sma-female-sma-male-2-watts-attenuator-pe7162-6-p.aspx>

# PE7162-6 CAD Drawing

6 dB Fixed Attenuator, SMA Male to SMA Female Passivated  
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| P/N       | ATTEN. | FIGURE |
|-----------|--------|--------|
| PE7162-1  | 1 dB   | 1      |
| PE7162-2  | 2 dB   | 1      |
| PE7162-3  | 3 dB   | 1      |
| PE7162-4  | 4 dB   | 1      |
| PE7162-5  | 5 dB   | 1      |
| PE7162-6  | 6 dB   | 1      |
| PE7162-7  | 7 dB   | 1      |
| PE7162-8  | 8 dB   | 1      |
| PE7162-9  | 9 dB   | 1      |
| PE7162-10 | 10 dB  | 1      |
| PE7162-12 | 12 dB  | 1      |
| PE7162-15 | 15 dB  | 1      |
| PE7162-20 | 20 dB  | 1      |
| PE7162-30 | 30 dB  | 2      |
| PE7162-40 | 40 dB  | 2      |

STANDARD TOLERANCES  
DECIMAL  
.XX ±0.01  
.XXX ±0.005

\*STANDARD TOLERANCES APPLY  
ONLY TO DIMENSIONS IN INCHES

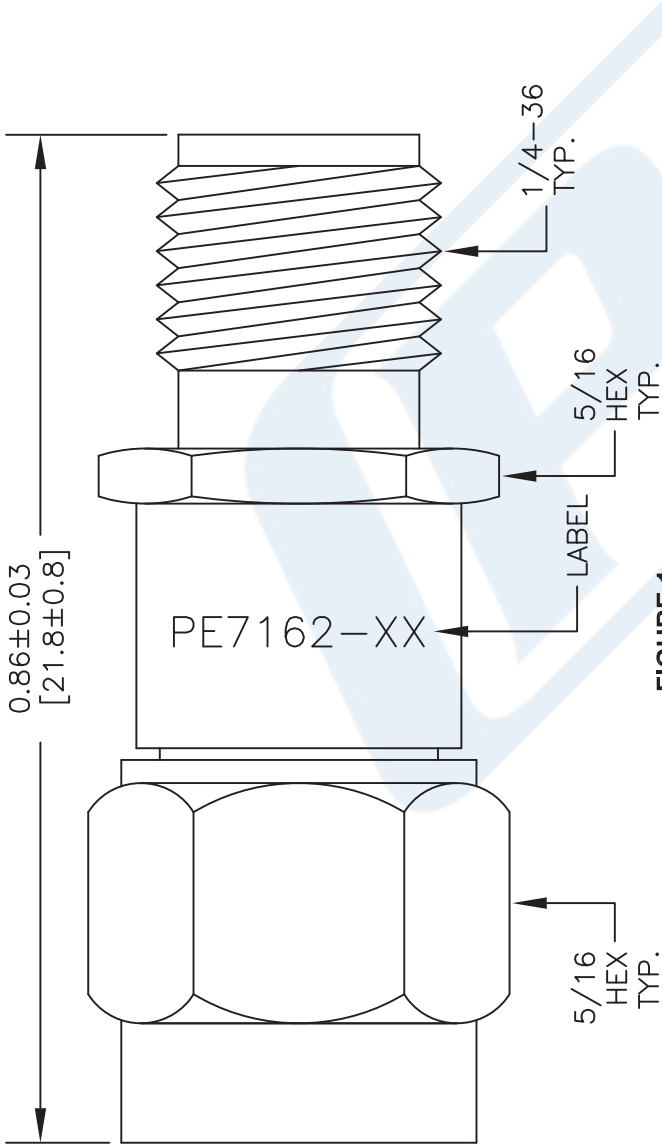


FIGURE 1

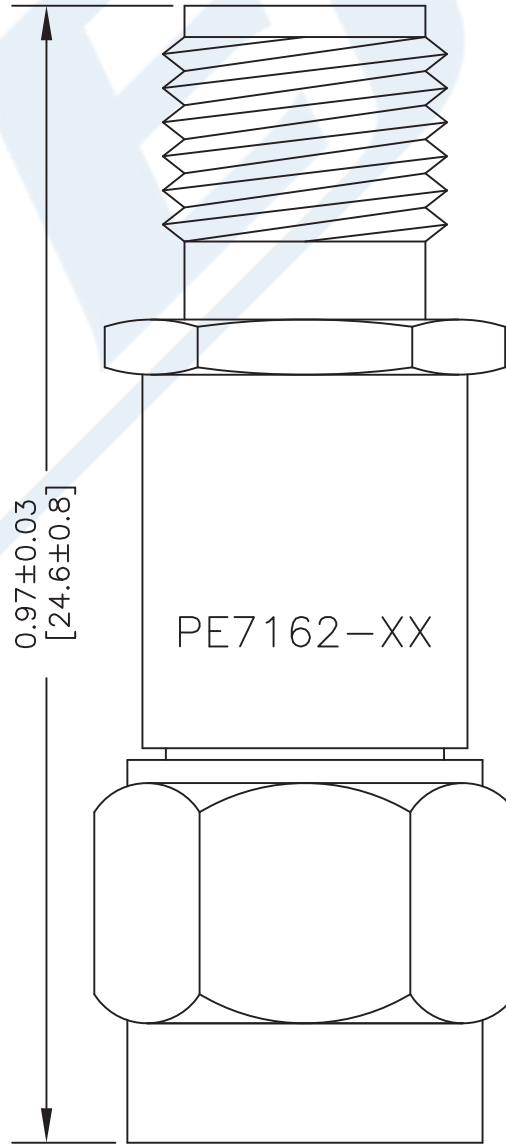


FIGURE 2

DWG TITLE

**PE7162**

**PE PASTERNAK®**  
THE ENGINEER'S RF SOURCE

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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 030116

SCALE N/A

SIZE A

3045