



20 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 10 Watts Up to 18 GHz

RF Fixed Attenuators Technical Data Sheet

PE7016-20

**Features**

- Bidirectional
- DC to 18 GHz Frequency Range
- Attenuation 20±0.7 dB
- Max Power 10 Watts (CW)
- VSWR < 1.4:1

**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 20 dB Fixed Attenuator PE7016-20 is rated to 10 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   |         | 20      |         | dB    |
| Attenuation Accuracy  |         | 0.7     |         | dB    |
| VSWR  |         |         | 1.4:1   |       |
| Input Power, CW<br>derated linearly from 10W @ 25°C to 2W @ 125°C |         |         | 10      | Watts |
| Input Power, Peak<br>5µs pulse, 0.05% duty cycle                  |         |         | 500     | Watts |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [20 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 10 Watts Up to 18 GHz PE7016-20](#)



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### Mechanical Specifications

#### Size

|                           |                                  |
|---------------------------|----------------------------------|
| Length                    | 1.7 in [43.18 mm]                |
| Width/Diameter            | 1 in [25.4 mm]                   |
| Weight                    | 0.0554 lbs [25.13 g]             |
| Body Material and Plating | Black Anodized Aluminum Heatsink |

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

### Plotted and Other Data

Notes:

20 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 10 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 99.4% availability and are part of the broadest selection in the industry.

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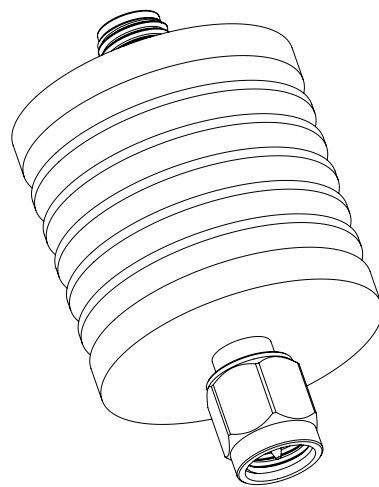
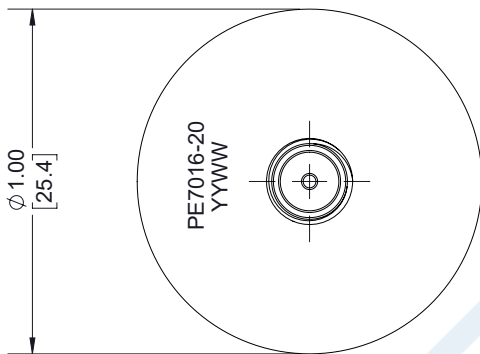
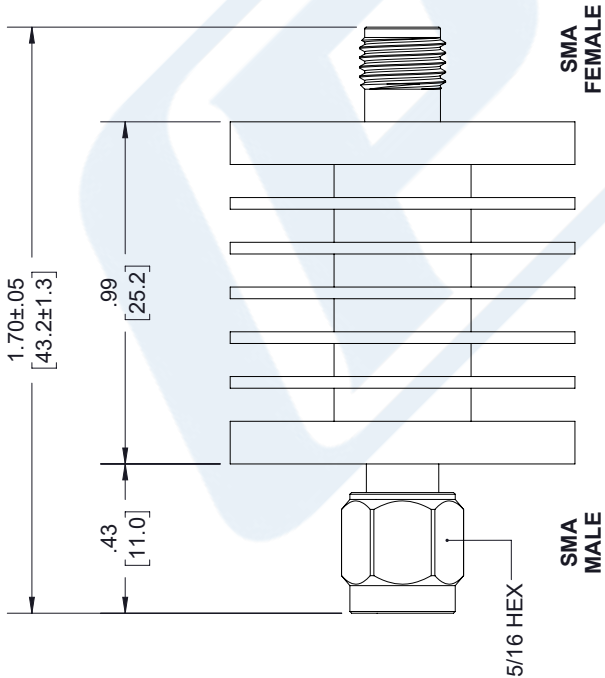
URL: <https://www.pasternack.com/20db-fixed-sma-female-sma-male-10-watts-attenuator-pe7016-20-p.aspx>

# PE7016-20 CAD Drawing

20 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized  
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### REVISIONS

| REV. | DESCRIPTION   | DATE      | APPROVED |
|------|---------------|-----------|----------|
| A    | PCR PE7016-XX | 3/25/2021 | S.PONG   |



### NOTES:

1. LABEL MAKING LOCATION FOR REFERENCE ONLY.

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UNLESS OTHERWISE SPECIFIED  
LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

#### TOLERANCES:

.X = ± .2 [5.08]      FRACTIONS ± 1/32  
.XX = ± .02 [ .51]      ANGLES ± 1°  
.XXX = ± .005 [ .13]      CABLE LENGTH (L) TOLERANCES:  
L ≤ 12 [305] = +1 [25] / -0  
12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
300 [7620] < L = +5% / L / -0

ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.



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SHEET 1 OF 1

SCALE N/A

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