



## 20 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 25 Watts Up to 4 GHz

### RF Fixed Attenuators Technical Data Sheet

PE7393-20

#### Features

- Bidirectional
- DC to 4 GHz Frequency Range
- Attenuation 20±0.6 dB
- Max Power 25 Watts (CW)
- VSWR < 1.25:1

#### 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 PE7393-20 is rated to 25 Watts and operates from DC to 4 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      |         | 4       | GHz    |
| Impedance  |         | 50      |         | Ohms   |
| Nominal Attenuation                                |         | 20      |         | dB     |
| Attenuation Accuracy                               |         | ±0.6    |         | dB     |
| VSWR   |         |         | 1.25:1  |        |
| Passive Intermodulation                            |         |         | -100    | dBc    |
| Input Power, CW<br>derated linearly to 2.5W @125°C |         |         | 25      | Watts  |
| Input Power, Peak<br>5µs pulse, 1.25% duty cycle   |         |         | 1       | KWatts |

#### Electrical Specification Notes:

Passive intermodulation specified at 910MHz with two input signals at 935MHz and 960MHz with average carrier power levels of +43dBm each.

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 25 Watts Up to 4 GHz PE7393-20](#)



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### Mechanical Specifications

#### Size

|                           |                                  |
|---------------------------|----------------------------------|
| Length                    | 3.25 in [82.55 mm]               |
| Width/Diameter            | 1.5 in [38.1 mm]                 |
| Weight                    | 0.198 lbs [89.81 g]              |
| Body Material and Plating | Black Anodized Aluminum Heatsink |

#### Configuration

|               |                      |
|---------------|----------------------|
| Design        | Fixed, Bidirectional |
| Package Style | Connectorized        |

#### Connectors

| Description                          | Connector 1        | Connector 2            |
|--------------------------------------|--------------------|------------------------|
| Type                                 | SMA Male           | SMA Female             |
| Contact Material and Plating         | Brass, Gold        | Beryllium Copper, Gold |
| Outer Conductor Material and Plating | Brass, Nickel      | Brass, Nickel          |
| Coupling Nut Material and Plating    | Brass, Nickel      |                        |
| Hex Size                             | 5/16 Inch          |                        |
| Torque                               | 5 in-lbs [0.57 Nm] |                        |
| Body Material and Plating            | Brass, Nickel      | Brass, Nickel          |

### Environmental Specifications

#### Temperature

|                 |                   |
|-----------------|-------------------|
| Operating Range | -55 to +125 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:

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 25 Watts Up to 4 GHz PE7393-20](#)

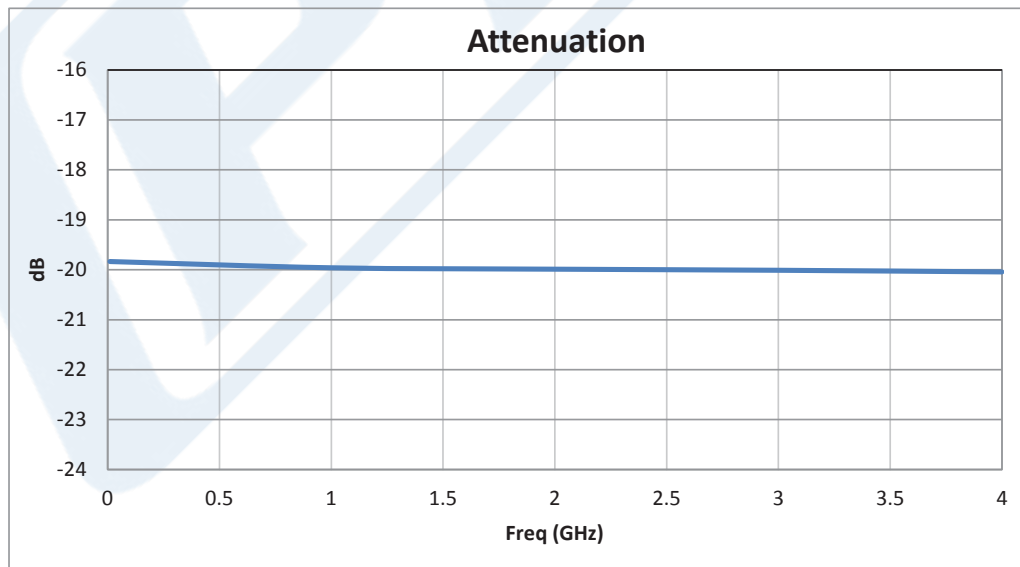
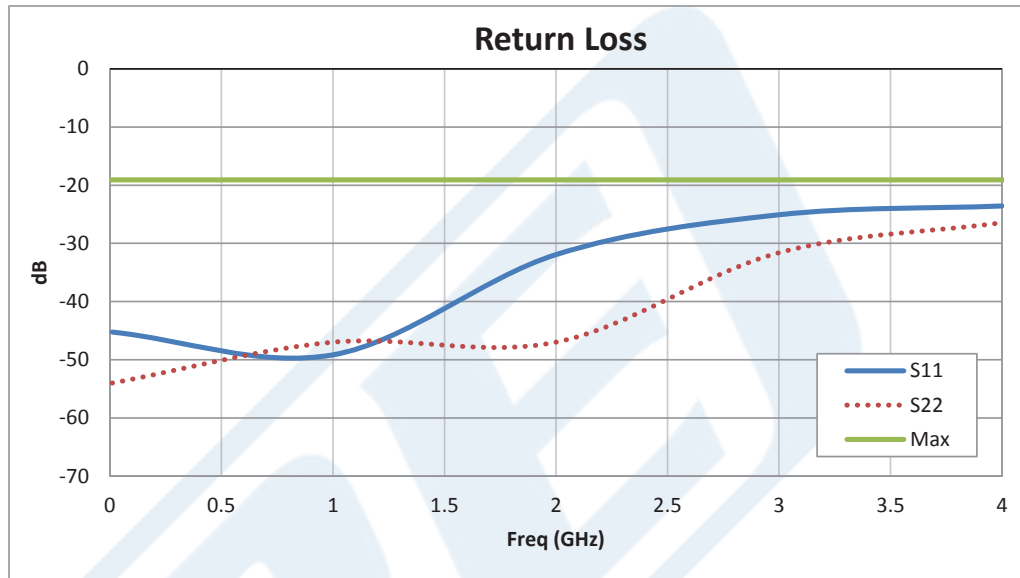


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Typical Performance Data



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20 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 25 Watts Up to 4 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: [20 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 25 Watts Up to 4 GHz PE7393-20](http://www.pasternack.com/20db-fixed-sma-male-sma-female-25-watts-attenuator-pe7393-20-p.aspx)

URL: <http://www.pasternack.com/20db-fixed-sma-male-sma-female-25-watts-attenuator-pe7393-20-p.aspx>

# PE7393-20 CAD Drawing

20 dB Fixed Attenuator, SMA Male to SMA Female Black Anodized Aluminum Heatsink Body Rated to 25 Watts Up to 4 GHz

| P/N       | ATTEN. | FIGURE |
|-----------|--------|--------|
| PE7393-3  | 3 dB   | 1      |
| PE7393-10 | 10 dB  | 1      |
| PE7393-20 | 20 dB  | 1      |
| PE7393-30 | 30 dB  | 1      |
| PE7393-40 | 40 dB  | 1      |

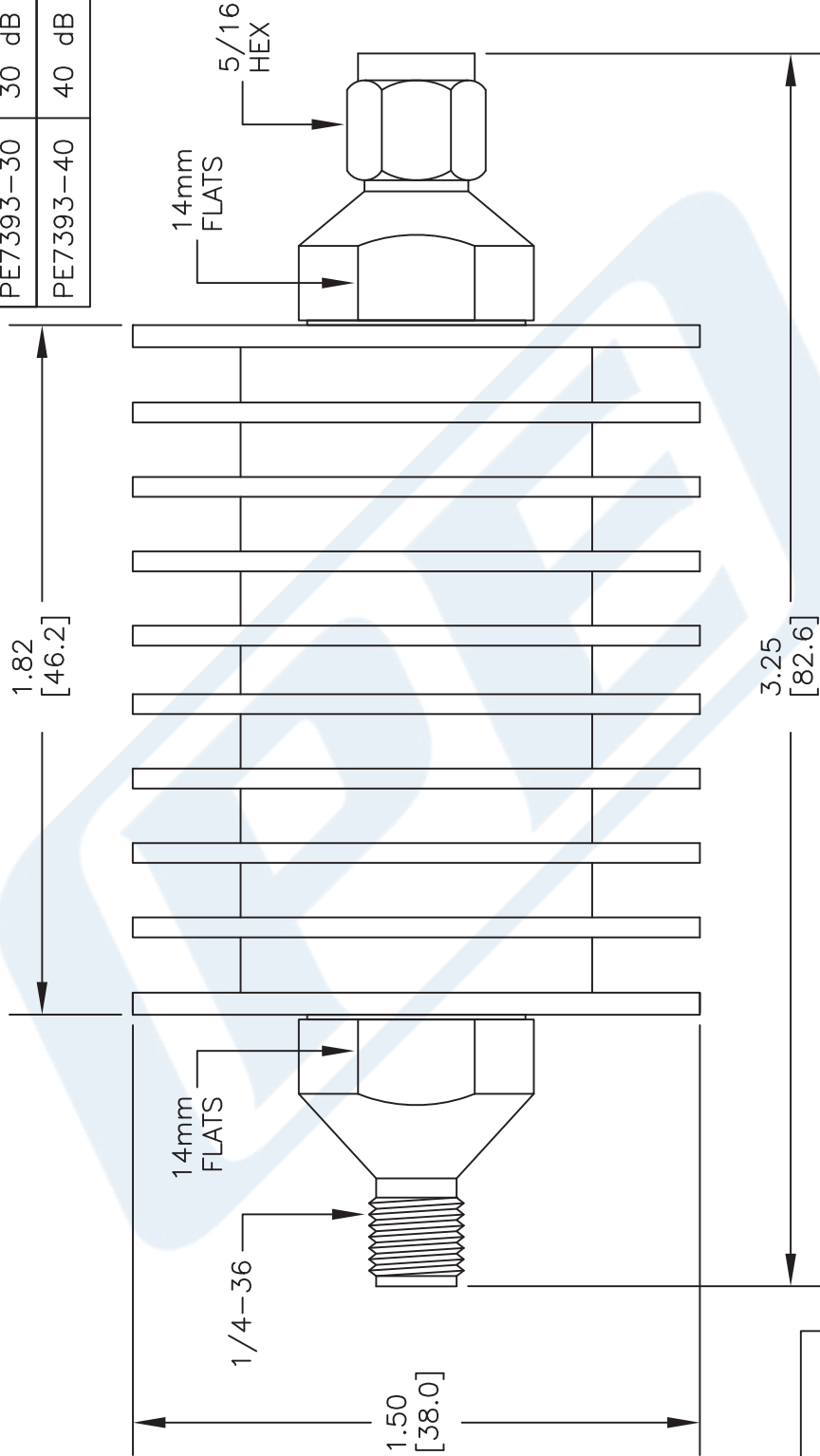


FIGURE 1

**STANDARD TOLERANCES**

- .X ±0.2
- .XX ±0.1
- .XXX ±0.05

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

DWG TITLE

**PE7393**

**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 020916

SCALE N/A

SIZE A

3045