

## 20 dB Fixed Attenuator Bulkhead for Cryogenic Application, 2.92mm Female to 2.92mm Female Copper Gold Plated Body Rated to 1 W, DC to 40 GHz



### PE7704-20

#### Features

- Cryogenic Operating Temperature Range -265.15 to 125Deg °C
- Bidirectional
- DC to 40 GHz Range
- Attenuation 20 +/- 0.75dB
- 1 Watt Average Input Power
- VSWR <1.4:1

#### Applications

- Quantum Computing
- Precision Measurements
- Instrumentation
- Prototyping and Characterization

#### 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 PE7704-20 is rated to 1 Watt and operates from DC to 40 GHz. The versatile coaxial package uses 2.92mm female to 2.92mm female connectors. The PE7704 series are specially designed and manufactured for cryogenic applications with RF performances guaranteed at 4 kelvin.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Nominal Attenuation		20		dB
Attenuation Accuracy			±0.75	dB
VSWR			1.4:1	
Input Power, CW			1	Watt

#### Mechanical Specifications

##### Size

Length	0.93 in [23.62 mm]
Width/Diameter	0.375 in [9.53 mm]
Height	0.375 in [9.53 mm]
Weight	0.5 lbs [226.8 g]
Body Material and Plating	Copper, Gold

##### Configuration

Design	Fixed, Bidirectional
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### Connectors

Description	Connector 1	Connector 2
Type	2.92mm Female	2.92mm Female
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Torque	7 in-lbs 0.79 Nm	7 in-lbs 0.79 Nm

### Environmental Specifications

#### Temperature

Operating Range -269.15 to +125 deg C

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

### Plotted and Other Data

Notes:

### Typical Performance Data

20 dB Fixed Attenuator Bulkhead for Cryogenic Application, 2.92mm Female to 2.92mm Female Copper Gold Plated Body Rated to 1 W, DC to 40 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: [20 dB Fixed Attenuator Bulkhead for Cryogenic Application, 2.92mm Female to 2.92mm Female Copper Gold Plated Body Rated to 1 W, DC to 40 GHz PE7704-20](#)

URL: <https://www.pasternack.com/20db-fixed-2.92mm-female-2.92mm-female-1-watt-attenuator-pe7704-20-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE7704-20 CAD Drawing

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