

## 20 dB Fixed Attenuator, N Male to N Female Passivated Stainless Steel Body Rated to 2 Watts Up to 18 GHz



### PE7004-20

#### Features

- Bidirectional
- DC to 18 GHz Frequency Range
- Attenuation 20±0.5 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 20 dB Fixed Attenuator PE7004-20 is rated to 2 Watts and operates from DC to 18 GHz. The versatile coaxial package uses type N male to type N female connectors and is also REACH and RoHS compliant.

#### Electrical Specifications

| Description                                     | Minimum | Typical | Maximum | Units |
|-------------------------------------------------|---------|---------|---------|-------|
| Frequency Range                                 | DC      |         | 18      | GHz   |
| Impedance                                       |         | 50      |         | Ohms  |
| Nominal Attenuation                             |         | 20      |         | dB    |
| Attenuation Accuracy                            |         | 0.5     |         | dB    |
| VSWR                                            |         |         | 1.35:1  |       |
| Input Power, CW                                 |         |         | 2       | Watts |
| derated linearly from 2W @ 25°C to 0.5W @ 125°C |         |         |         |       |
| Input Power, Peak                               |         |         | 250     | Watts |
| 5µs pulse, 0.05% duty cycle                     |         |         |         |       |

#### Specifications by Frequency

| Description     | F1      | F2     | F3        | F4         | F5 | Units |
|-----------------|---------|--------|-----------|------------|----|-------|
| Frequency Range | DC to 4 | 4 to 8 | 8 to 12.4 | 12.4 to 18 |    | GHz   |
| VSWR, Max       | 1.15:1  | 1.2:1  | 1.25:1    | 1.35:1     |    |       |

#### Mechanical Specifications

##### Size

|                |                    |
|----------------|--------------------|
| Length         | 1.76 in [44.7 mm]  |
| Width/Diameter | 0.83 in [21.08 mm] |
| Height         | 0 in [0 mm]        |

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|                           |                            |
|---------------------------|----------------------------|
| Weight                    | 0.136 lbs [61.69 g]        |
| Body Material and Plating | Passivated Stainless Steel |
| <b>Configuration</b>      |                            |
| Design                    | Fixed, Bidirectional       |
| Package Style             | Connectorized Module       |

#### Connectors

| Description                  | Connector 1                | Connector 2                |
|------------------------------|----------------------------|----------------------------|
| Type                         | N Male                     | N Female                   |
| Connector Specification      | MIL-STD-348                | MIL-STD-348                |
| Contact Material and Plating | Beryllium Copper, Gold     | Beryllium Copper, Gold     |
| Body Material and Plating    | Passivated Stainless Steel | Passivated Stainless Steel |

#### Environmental Specifications

|                    |                   |
|--------------------|-------------------|
| <b>Temperature</b> |                   |
| Operating Range    | -65 to +125 deg C |

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

#### Plotted and Other Data

Notes:

#### Typical Performance Data

20 dB Fixed Attenuator, N Male to N Female Passivated Stainless Steel Body Rated to 2 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.

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, N Male to N Female Passivated Stainless Steel Body Rated to 2 Watts Up to 18 GHz PE7004-20](#)

URL: <https://www.pasternack.com/20db-fixed-n-female-n-male-2-watts-attenuator-pe7004-20-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.

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