

20 dB Fixed Attenuator N Male (Plug) to N Female (Jack) Up to 10 GHz Rated to 50 Watts, Aluminum Black Anodized Body, 1.35 VSWR



## FMAT7580-20

### Features

- DC to 10 GHz Range
- Attenuation 20  $\pm$ 0.8 dB
- 50 Watts Average Input Power
- VSWR <1.35:1

### Applications

- Precision Measurements
- Production Systems
- Instrumentation
- Prototyping and Characterization
- 5G and 6G communications

### Description

Fairview Microwave carries a broad selection of fixed attenuators with a wide range of attenuation levels, frequency ranges, and power dissipation ranges. Also known as RF pads, RF microwave attenuators lower the amplitude of a signal (or attenuate) a known amount. These attenuator pads can be used in a wide variety of applications including reducing a signal level to protect measurement equipment or other circuitry, extending the range of power meters and amplifiers, and impedance matching 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 Fairview Microwave carries one of the largest in-stock varieties and ships them same day. The FMAT7580-20 is a 20 dB Fixed Attenuator that operates from DC to 10 GHz and is rated to 50 Watts. The versatile coaxial package uses type N male to type N female connectors and is also REACH compliant.

### Electrical Specifications

| Description                     | Minimum | Typical   | Maximum | Units  |
|---------------------------------|---------|-----------|---------|--------|
| Frequency Range                 | DC      |           | 10      | GHz    |
| Impedance                       |         | 50        |         | Ohms   |
| Nominal Attenuation             |         | 20        |         | dB     |
| Attenuation Accuracy            |         | $\pm$ 0.8 |         | dB     |
| VSWR                            |         |           | 1.35:1  |        |
| Input Power, CW                 |         |           | 50      | Watts  |
| Input Power, Peak               |         |           | 5       | kWatts |
| 5 $\mu$ s PW with 1% duty cycle |         |           |         |        |

### Mechanical Specifications

#### Size

|                           |                          |
|---------------------------|--------------------------|
| Length                    | 4.41 in [112.01 mm]      |
| Width/Diameter            | 1.77 in [44.96 mm]       |
| Height                    | 1.77 in [44.96 mm]       |
| Weight                    | 0.6 lbs [272.16 g]       |
| Body Material and Plating | Aluminum, Black Anodized |

#### Configuration

|               |                       |
|---------------|-----------------------|
| Design        | Fixed, Unidirectional |
| Design Type   | Standard              |
| Package Style | Connectorized         |

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### Connectors

| Description                  | Connector 1   | Connector 2            |
|------------------------------|---------------|------------------------|
| Type                         | N Male        | N Female               |
| Contact Material and Plating | Brass, Gold   | Beryllium Copper, Gold |
| Body Material and Plating    | Brass, Nickel | Brass, Nickel          |

### Environmental Specifications

#### Temperature

Operating Range -55 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 (Plug) to N Female (Jack) Up to 10 GHz Rated to 50 Watts, Aluminum Black Anodized Body, 1.35 VSWR from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [20 dB Fixed Attenuator N Male \(Plug\) to N Female \(Jack\) Up to 10 GHz Rated to 50 Watts, Aluminum Black Anodized Body, 1.35 VSWR FMAT7580-20](#)

URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-n-male-n-female-50-watts-fmat7580-20-p.aspx>

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FMAT7580-20 CAD Drawing

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