

## 20 dB Fixed Attenuator 2.92mm Male (Plug) to 2.92mm Female (Jack) Directional Up to 40 GHz Rated to 10 Watts, Heatsink Body, 1.4 VSWR

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 SA4020-20 is a 20 dB Fixed Attenuator that operates from DC to 40 GHz and is rated to 10 Watts. The versatile coaxial package uses 2.92mm male to 2.92mm 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   | Min | Typ | Max   | Units |
|---|-----|-----|-------|-------|
| Frequency Range   | DC  |     | 40    | GHz   |
| Impedance   |     | 50  |       | Ohms  |
| Nominal Attenuation   |     | 20  |       | dB    |
| VSWR  |     |     | 1.4:1 |       |
| Input Power, CW<br>rated at +25°C, derated linearly to 0W at +125°C |     |     | 10    | Watts |
| Input Power, Peak<br>5µs pulse, 1.25% duty cycle                    |     |     | 200   | Watts |

### Specifications by Frequency

| Description         | F1       | F2       | F3 | F4 | F5 | Units |
|---------------------|----------|----------|----|----|----|-------|
| Range               | DC to 18 | 18 to 40 |    |    |    | GHz   |
| VSWR, Max           | 1.25:1   | 1.4:1    |    |    |    |       |
| Atten Accuracy, Typ | 1        | 1.75     |    |    |    | dB    |

Electrical Specification Notes:  
 Values at +25°C, sea level.

### Mechanical Specifications

|                           |                                  |
|---------------------------|----------------------------------|
| <b>Size</b>               |                                  |
| Length                    | 2.14 in [54.36 mm]               |
| Width/Diameter            | 1.5 in [38.1 mm]                 |
| Weight                    | 0.1575 lbs [71.44 g]             |
| Body Material and Plating | Black Anodized Aluminum Heatsink |

### Configuration

|        |                    |
|--------|--------------------|
| Design | Fixed, Directional |
|--------|--------------------|



### Features:

- Directional
- DC to 40 GHz Frequency Range
- Attenuation 20±1.75 dB
- Max Power 10 Watts (CW)
- VSWR < 1.4:1

### Applications:

- Instrumentation
- Precision measurements
- Prototyping and characterization
- Production systems

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Package Style Connectorized Module

**Connectors**

| Description             | Connector 1                | Connector 2                |
|-------------------------|----------------------------|----------------------------|
| Type                    | 2.92mm Male                | 2.92mm Female              |
| Connector Spec.         | MIL-STD-348A               | MIL-STD-348A               |
| Body Material & Plating | Passivated Stainless Steel | Passivated Stainless Steel |

**Environmental Specifications**

**Temperature**

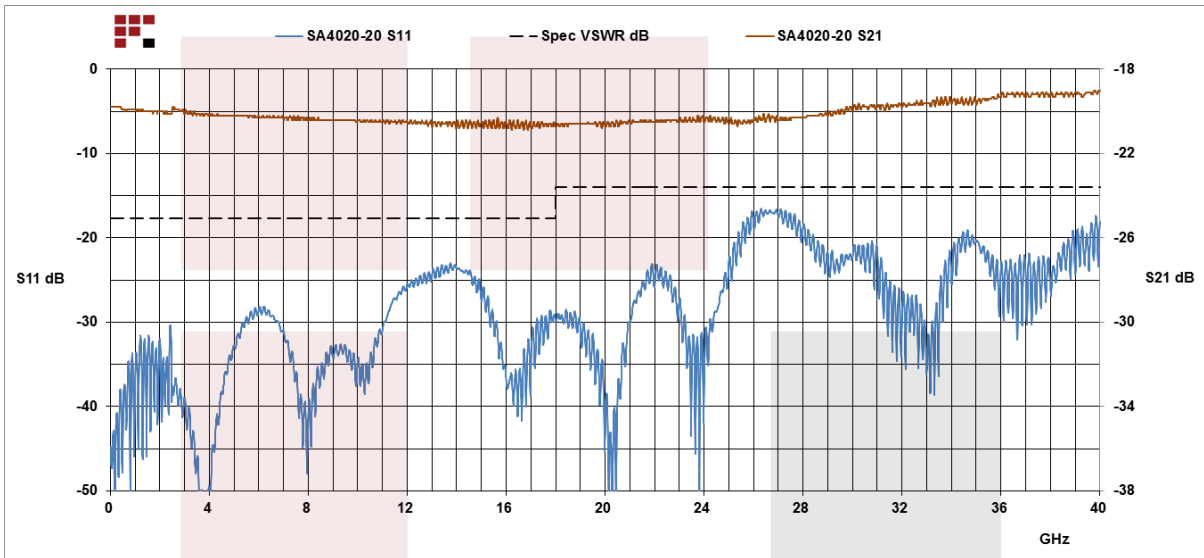
Operating Range -55 to +125 deg C

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

**Plotted and Other Data**

Notes:

**Typical Performance Data**



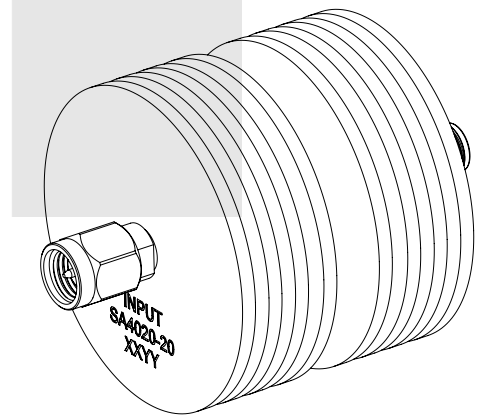
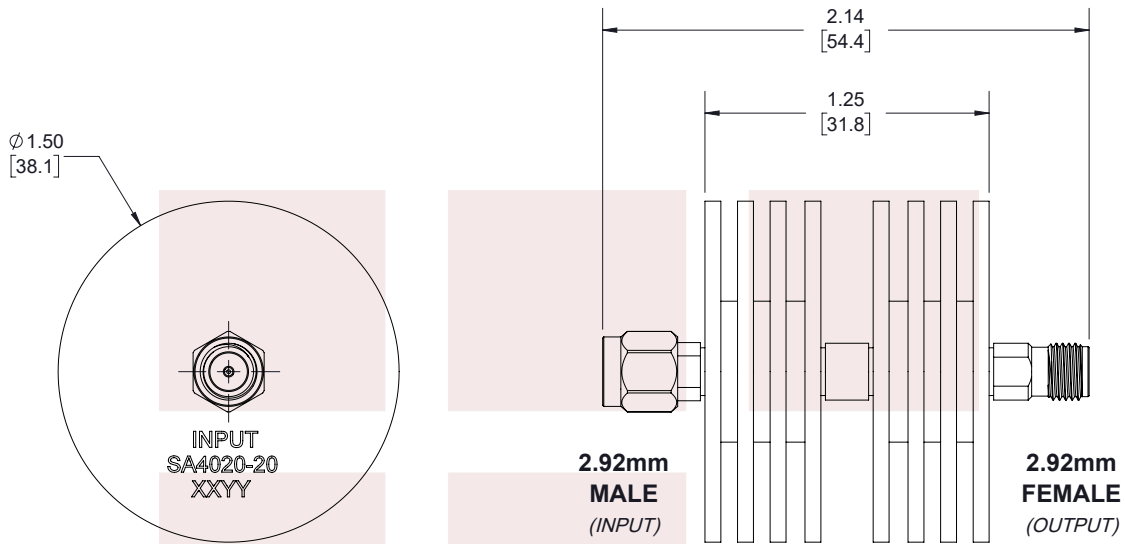
20 dB Fixed Attenuator 2.92mm Male (Plug) to 2.92mm Female (Jack) Directional Up to 40 GHz Rated to 10 Watts, Heatsink Body, 1.4 VSWR from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [20 dB Fixed Attenuator 2.92mm Male \(Plug\) to 2.92mm Female \(Jack\) Directional Up to 40 GHz Rated to 10 Watts, Heatsink Body, 1.4 VSWR SA4020-20](#)

URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-2.92mm-male-2.92mm-female-10-watts-sa4020-20-p.aspx>

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





**STANDARD TOLERANCES**

.X  $\pm 0.2$   
.XX  $\pm 0.01$   
.XXX  $\pm 0.005$

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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].

|  |                            |                 |                           |           |      |  |
|--|----------------------------|-----------------|---------------------------|-----------|------|--|
| TITLE<br>20 dB Fixed Attenuator 2.92mm Male (Plug) to 2.92mm Female (Jack) Directional Up to 40 GHz Rated to 10 Watts, Heatsink Body, 1.4 VSWR | DWG NO<br><b>SA4020-20</b> |                 | CAGE CODE<br><b>3FKR5</b> |           |      |  |
|  | CAD FILE<br>06/12/18       | SHEET<br>1 OF 1 | SCALE<br>N/A              | SIZE<br>A | 7361 |  |