

20 dB Fixed Attenuator SMP Male (Plug) to SMP Female (Jack) Up to 10 GHz Rated to 2 Watts, Passivated Stainless Steel Body, 1.4 VSWR



SA10P2W-20

Features

- DC to 10 GHz Frequency Range
- Attenuation 1±0.5 dB
- Max Power 2 Watts (CW)
- VSWR < 1.40:1

Applications

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

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 SA10P2W-20 is a 20 dB Fixed Attenuator that operates from DC to 10 GHz and is rated to 2 Watts. The versatile coaxial package uses SMP male to SMP female connectors.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-----------------------------------|---------|---------|---------|-------|
| Frequency Range | DC | | 10 | GHz |
| Impedance | | 50 | | Ohms |
| Nominal Attenuation | | 20 | | dB |
| VSWR | | | 1.4:1 | |
| Input Power, CW | | | 2 | Watts |
| Input Power, Peak for 25 µsec. | | | 100 | Watts |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|---------------------------|---------|--------|---------|----|----|-------|
| Frequency Range | DC to 2 | 2 to 5 | 5 to 10 | | | GHz |
| VSWR, Max | 1.15:1 | 1.25:1 | 1.4:1 | | | |
| Attenuation Accuracy, Typ | 0.2 | 0.5 | 1 | | | dB |

Electrical Specification Notes:

Impedance deviation of ±0.25 Ohms//VSWR deviation of ±0.1 %//Power coefficient of 0.001 dB/W (change in attenuation with increase in power)//Temperature coefficient of 0.001 dB/°C max., 0.0003 dB/°C typ.

Mechanical Specifications

Size

Length 0.81 in [20.57 mm]

20 dB Fixed Attenuator SMP Male (Plug) to SMP Female (Jack) Up to 10 GHz Rated to 2 Watts, Passivated Stainless Steel Body, 1.4 VSWR



SA10P2W-20

| | |
|---------------------------|----------------------------|
| Width/Diameter | 0.28 in [7.11 mm] |
| Height | 0 in [0 mm] |
| Weight | 0.0078 lbs [3.54 g] |
| Body Material and Plating | Passivated Stainless Steel |

Configuration

| | |
|---------------|----------------------|
| Design | Fixed |
| Package Style | Connectorized Module |

Connectors

| Description | Connector 1 | Connector 2 |
|-------------------------------|----------------------------|------------------------|
| Type | SMP Male | SMP Female |
| Contact Material and Plating | Phosphor Bronze, Gold | Beryllium Copper, Gold |
| Contact Plating Specification | 4 μ-in min. | 4 μ-in min. |
| Dielectric Type | Teflon | Teflon |
| Body Material and Plating | Passivated Stainless Steel | Beryllium Copper, Gold |
| Body Plating Specification | | 4 μ-in min. |

Environmental Specifications

Temperature

| | |
|-----------------|------------------|
| Operating Range | -50 to +80 deg C |
|-----------------|------------------|

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

Plotted and Other Data

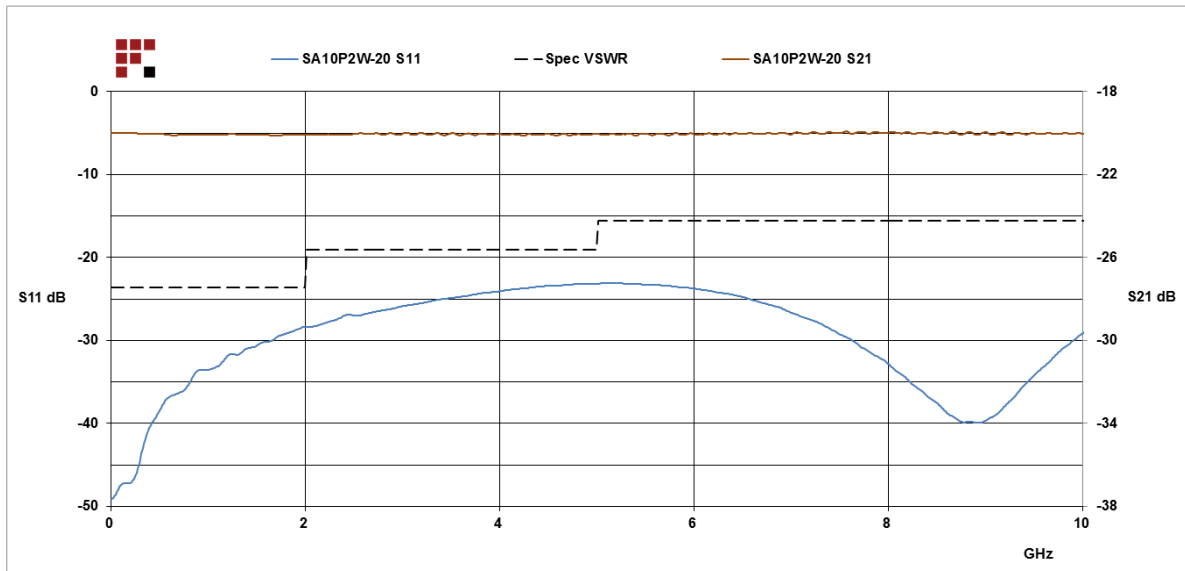
Notes:

20 dB Fixed Attenuator SMP Male (Plug) to SMP Female (Jack) Up to 10 GHz Rated to 2 Watts, Passivated Stainless Steel Body, 1.4 VSWR



SA10P2W-20

Typical Performance Data



20 dB Fixed Attenuator SMP Male (Plug) to SMP Female (Jack) Up to 10 GHz Rated to 2 Watts, Passivated Stainless Steel 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 SMP Male \(Plug\) to SMP Female \(Jack\) Up to 10 GHz Rated to 2 Watts, Passivated Stainless Steel Body, 1.4 VSWR SA10P2W-20](https://www.fairviewmicrowave.com/20db-fixed-attenuator-smp-male-smp-female-2-watts-sa10p2w-20-p.aspx)

URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-smp-male-smp-female-2-watts-sa10p2w-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. 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 liability arising out of the use of any part or document.