

20 dB Fixed Attenuator SMA Male To SMA Female Up To 6 GHz Rated To 2 Watts With Passivated Stainless Steel Body

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 selections and ships them same day. The SA3011-20 is a 20 dB Fixed Attenuator that operates from DC to 6 GHz and is rated to 2 Watts. The versatile coaxial package uses SMA male to SMA female connectors and is also REACH and RoHS compliant.

Electrical Specifications

| Description | Min | Typ | Max | Units |
|---|-----|-----|-------|-------|
| Frequency Range | DC | | 6 | GHz |
| Impedance | | 50 | | Ohms |
| Nominal Attenuation | | 20 | | dB |
| Attenuation Accuracy | | ±1 | | dB |
| VSWR | | | 1.3:1 | |
| Input Power, CW derated linearly to 0.2W @ 125°C | | | 2 | Watts |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-------------|---------|--------|----|----|----|-------|
| Range | DC to 3 | 3 to 6 | | | | GHz |
| VSWR, Max | 1.15:1 | 1.3:1 | | | | |

Mechanical Specifications

| | |
|---------------------------|----------------------------|
| Size | |
| Length | 1.05 in [26.67 mm] |
| Width/Diameter | 0.37 in [9.4 mm] |
| Weight | 0.015 lbs [6.8 g] |
| Body Material and Plating | Passivated Stainless Steel |

Configuration

| | |
|---------------|----------------------|
| Design | Fixed, Bidirectional |
| Package Style | Connectorized |



Features:

- Bidirectional
- DC to 6 GHz Frequency Range
- Attenuation 20±1 dB
- Max Power 2 Watts (CW)
- VSWR < 1.3:1

Applications:

- Instrumentation
- Precision Measurements
- Prototyping and Characterization
- Production Systems

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Connectors

| Description | Connector 1 | Connector 2 |
|---------------------------------|----------------------------|----------------------------|
| Type | SMA Male | SMA Female |
| Connection Method | Standard | Standard |
| Polarity | Standard | Standard |
| Contact Material & Plating | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Contact Plating Spec. | 30 μ-inch | 30 μ-inch |
| Dielectric Type | Teflon | Teflon |
| Coupling Nut Material & Plating | Passivated Stainless Steel | |
| Body Material & Plating | Passivated Stainless Steel | Passivated Stainless Steel |

Environmental Specifications

Temperature

| | |
|-----------------|-------------------|
| Operating Range | -55 to +125 deg C |
| Storage Range | -55 to +125 deg C |

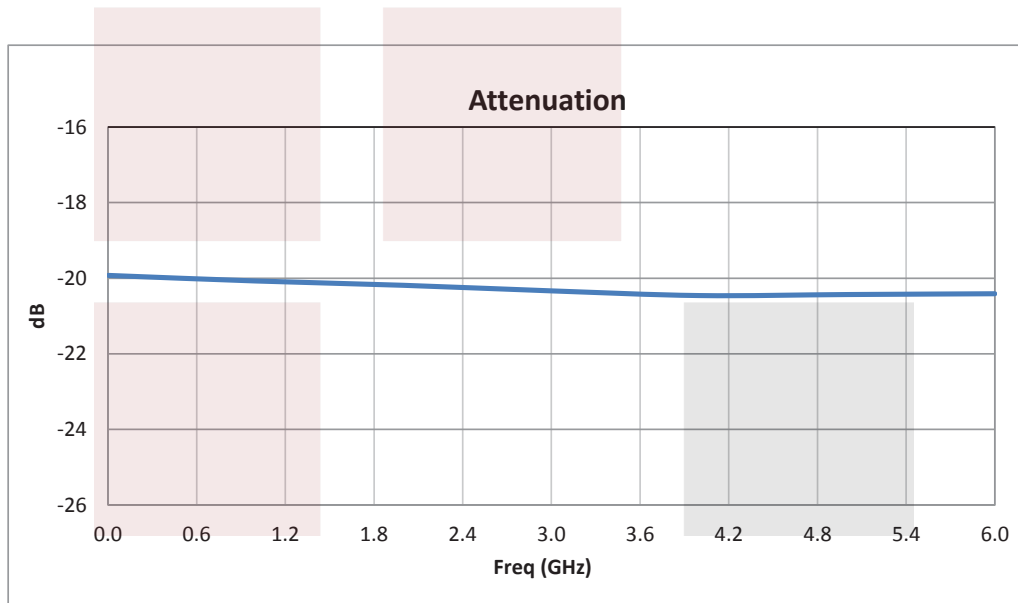
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

| | |
|-----------------|------------|
| RoHS Compliant | Yes |
| REACH Compliant | 12/17/2015 |

Plotted and Other Data

Notes:

Typical Performance Data



20 dB Fixed Attenuator SMA Male To SMA Female Up To 6 GHz Rated To 2 Watts With Passivated Stainless Steel Body 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 Allen, Texas. Fairview Microwave is RF on-demand.

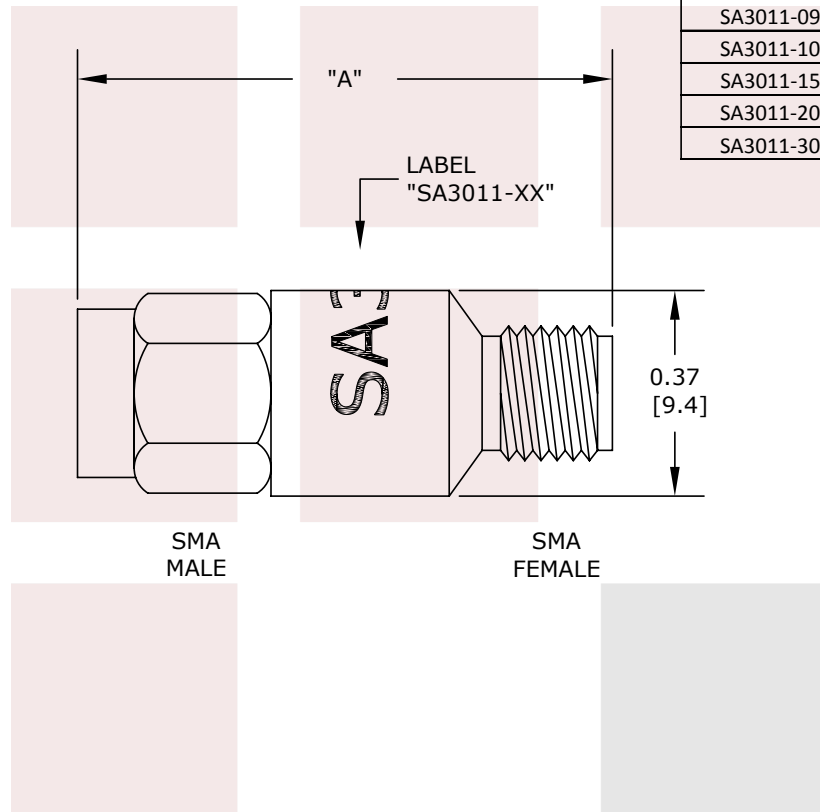
For additional information on this product, please click the following link: [20 dB Fixed Attenuator SMA Male To SMA Female Up To 6 GHz Rated To 2 Watts With Passivated Stainless Steel Body SA3011-20](#)

URL: <http://www.fairviewmicrowave.com/20db-fixed-attenuator-sma-male-sma-female-2-watts-sa3011-20-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.



| P/N | Atten. | Dim."A" |
|-----------|--------|---------|
| SA3011-01 | 1 dB | 0.96 |
| SA3011-02 | 2 dB | 0.96 |
| SA3011-03 | 3 dB | 0.96 |
| SA3011-04 | 4 dB | 0.96 |
| SA3011-05 | 5 dB | 0.96 |
| SA3011-06 | 6 dB | 0.96 |
| SA3011-08 | 8 dB | 0.96 |
| SA3011-09 | 9 dB | 0.96 |
| SA3011-10 | 10 dB | 0.96 |
| SA3011-15 | 15 dB | 1.05 |
| SA3011-20 | 20 dB | 1.05 |
| SA3011-30 | 30 dB | 1.05 |



| STANDARD TOLERANCES | |
|---------------------|-------|
| .X | ±0.2 |
| .XX | ±0.1 |
| .XXX | ±0.05 |

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

| | | | | | |
|--|--|---|-------|--------------------|----------------|
| FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM | | 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 20 dB Fixed Attenuator SMA Male To SMA Female Up To 6 GHz Rated To 2 Watts With Passivated Stainless Steel Body | | DWG NO SA3011 | | CAGE CODE 3FKR5 | |
| | | CAD FILE 030216 | SHEET | SCALE N/A | SIZE A 3045 |