

**10 dB Fixed Attenuator 7/16 Male To 7/16 Female
 Up To 3 GHz Rated To 100 Watts With Black
 Aluminum Heatsink 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 SA3D100-10 is a 10 dB Fixed Attenuator that operates from DC to 3 GHz and is rated to 100 Watts. The versatile coaxial package uses 7/16 DIN male to 7/16 DIN 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 | | 3 | GHz |
| Impedance | | 50 | | Ohms |
| Nominal Attenuation | | 10 | | dB |
| Attenuation Accuracy | | ±0.6 | | dB |
| VSWR | | | 1.3:1 | |
| Passive Intermodulation | | | -100 | dBc |
| Input Power, CW derated linearly to 10W @125°C | | | 100 | Watts |
| Input Power, Peak 5µs pulse, 5% duty cycle | | | 10 | KWatts |

Electrical Specification Notes:

Passive intermodulation specified at 910MHz with two input signals at 935MHz and 960MHz with average carrier power levels of +43dBm each.

Mechanical Specifications

| | |
|---------------------------|----------------------------------|
| Size | |
| Length | 9.88 in [250.95 mm] |
| Width/Diameter | 3.15 in [80.01 mm] |
| Height | 2.36 in [59.94 mm] |
| Weight | 4.034 lbs [1.83 Kg] |
| Body Material and Plating | Black Anodized Aluminum Heatsink |

Configuration

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



Features:

- Bidirectional
- DC to 3 GHz Frequency Range
- Attenuation 10±0.6 dB
- Max Power 100 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 | 7/16 DIN Male | 7/16 DIN Female |
| Contact Material & Plating | Brass, Gold | Beryllium Copper, Gold |
| Outer Conductor Material & Plating | Brass, Nickel | Brass, Nickel |
| Body Material & Plating | Brass, Nickel | Brass, Nickel |

Environmental Specifications

Temperature

Operating Range -55 to +125 deg C

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

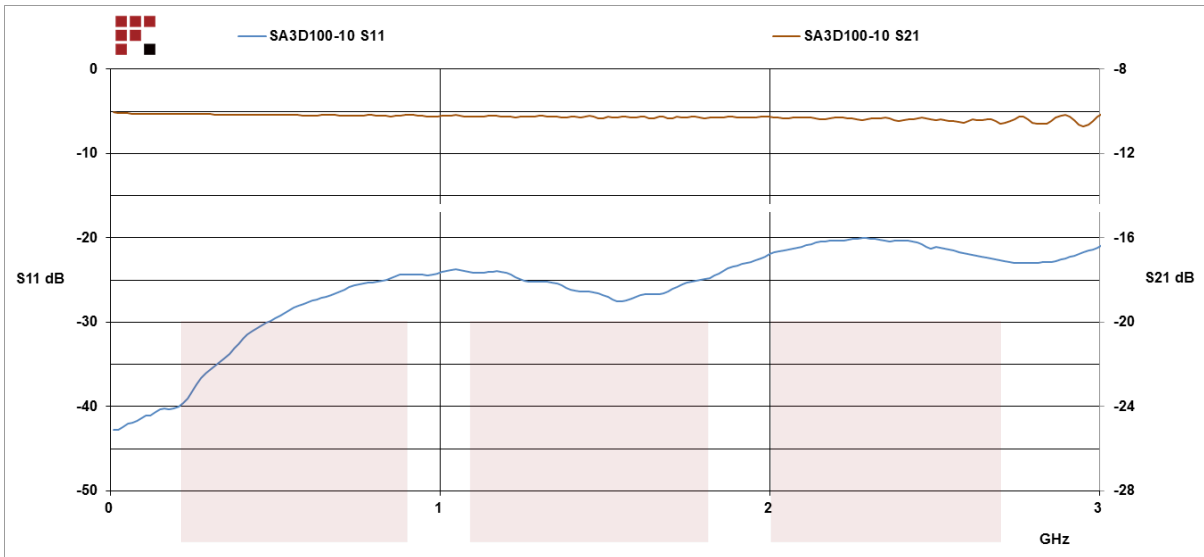
RoHS Compliant Yes
 REACH Compliant 12/17/2015

Plotted and Other Data

Notes:



Typical Performance Data



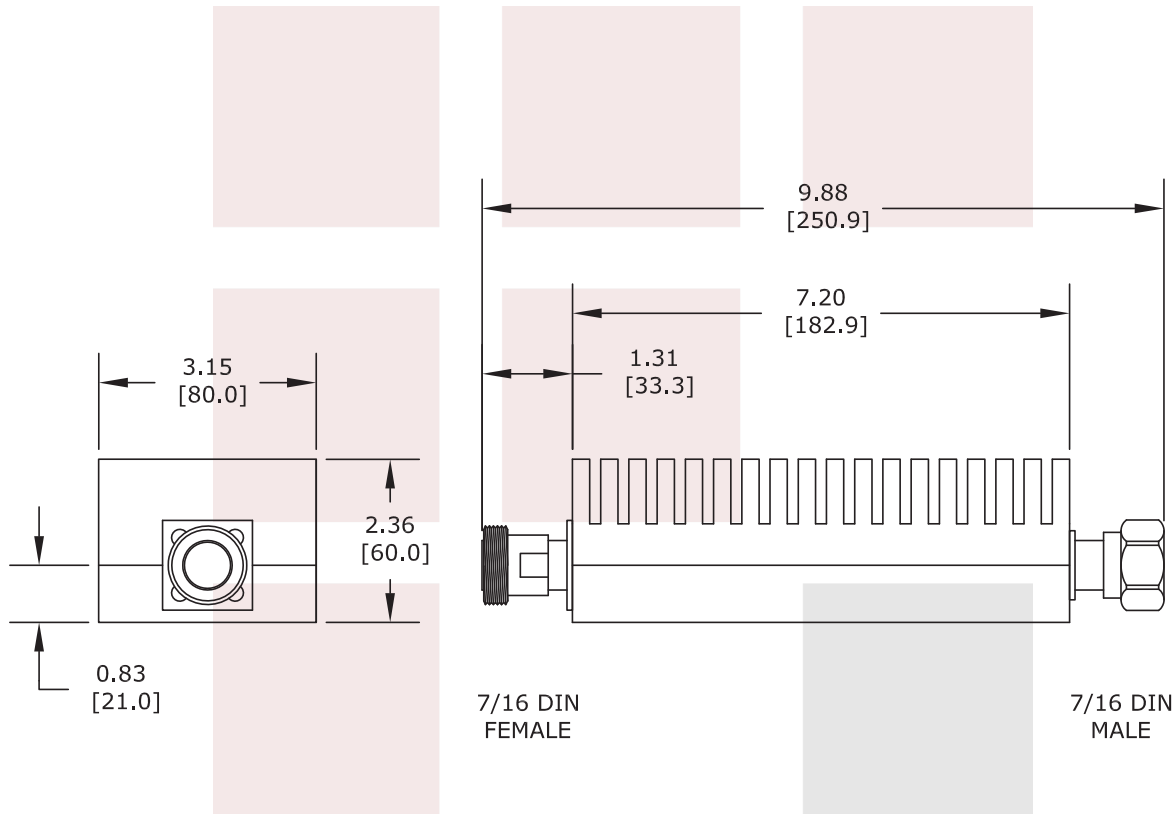
10 dB Fixed Attenuator 7/16 Male To 7/16 Female Up To 3 GHz Rated To 100 Watts With Black Aluminum Heatsink Body from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [10 dB Fixed Attenuator 7/16 Male To 7/16 Female Up To 3 GHz Rated To 100 Watts With Black Aluminum Heatsink Body SA3D100-10](http://www.fairviewmicrowave.com/10db-fixed-attenuator-7-16-male-7-16-female-100-watts-sa3d100-10-p.aspx)

URL: <http://www.fairviewmicrowave.com/10db-fixed-attenuator-7-16-male-7-16-female-100-watts-sa3d100-10-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. |
|------------|--------|
| SA3D100-03 | 3 dB |
| SA3D100-06 | 6 dB |
| SA3D100-10 | 10 dB |
| SA3D100-20 | 20 dB |
| SA3D100-30 | 30 dB |



| 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 10 dB Fixed Attenuator 7/16 Male To 7/16 Female Up To 3 GHz Rated To 100 Watts With Black Aluminum Heatsink Body | | DWG NO SA3D100 | | CAGE CODE 3FKR5 | |
| CAD FILE | 101615 | SHEET | SCALE | N/A | SIZE A 150 |