

### 3 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 18 GHz Rated to 50 Watts, Heatsink Body, 1.35 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 SA18S50W-03 is a 3 dB Fixed Attenuator that operates from DC to 18 GHz and is rated to 50 Watts. The versatile coaxial package uses SMA male to SMA 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.



#### Features:

- Bidirectional
- DC to 18 GHz Frequency Range
- Attenuation 3±1.5 dB
- Max Power 50 Watts (CW)
- VSWR < 1.35:1

#### Applications:

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

#### Electrical Specifications

| Description   | Min | Typ | Max    | Units  |
|---|-----|-----|--------|--------|
| Frequency Range   | DC  |     | 18     | GHz    |
| Impedance   |     | 50  |        | Ohms   |
| Nominal Attenuation   |     | 3   |        | dB     |
| Attenuation Accuracy  |     |     | 1.5    | dB     |
| VSWR  |     |     | 1.35:1 |        |
| Input Power, CW<br>rated at +25°C, derated linearly to 5W at +125°C |     |     | 50     | Watts  |
| Input Power, Peak<br>5µs pulse, 2.5% duty cycle                     |     |     | 1      | kWatts |

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

#### Mechanical Specifications

| Size                      |                                  |
|---------------------------|----------------------------------|
| Length                    | 4.78 in [121.41 mm]              |
| Width/Diameter            | 1.5 in [38.1 mm]                 |
| Weight                    | 0.353 lbs [160.12 g]             |
| Body Material and Plating | Black Anodized Aluminum Heatsink |

#### Configuration

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

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**Connectors**

| Description                | Connector 1                | Connector 2                |
|----------------------------|----------------------------|----------------------------|
| Type                       | SMA Male                   | SMA Female                 |
| Connector Spec.            | MIL-STD-348A               | MIL-STD-348A               |
| Contact Material & Plating | Passivated Stainless Steel | Beryllium Copper, Gold     |
| Body Material & Plating    | Passivated Stainless Steel | Passivated Stainless Steel |

**Environmental Specifications**

**Temperature**

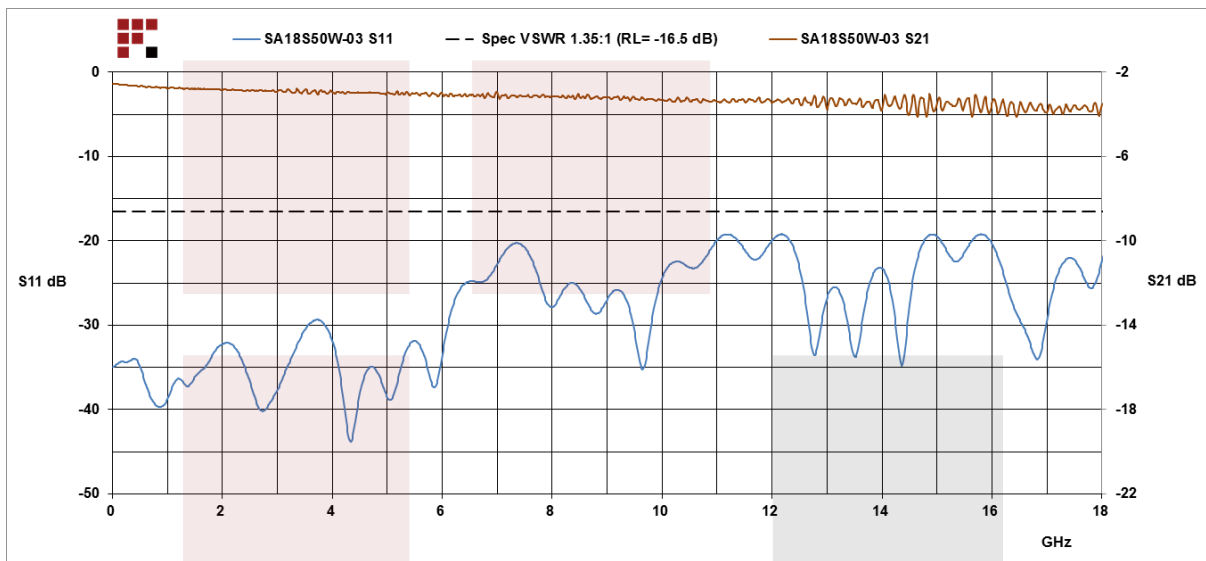
Operating Range -55 to +125 deg C

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

**Plotted and Other Data**

Notes:

**Typical Performance Data**

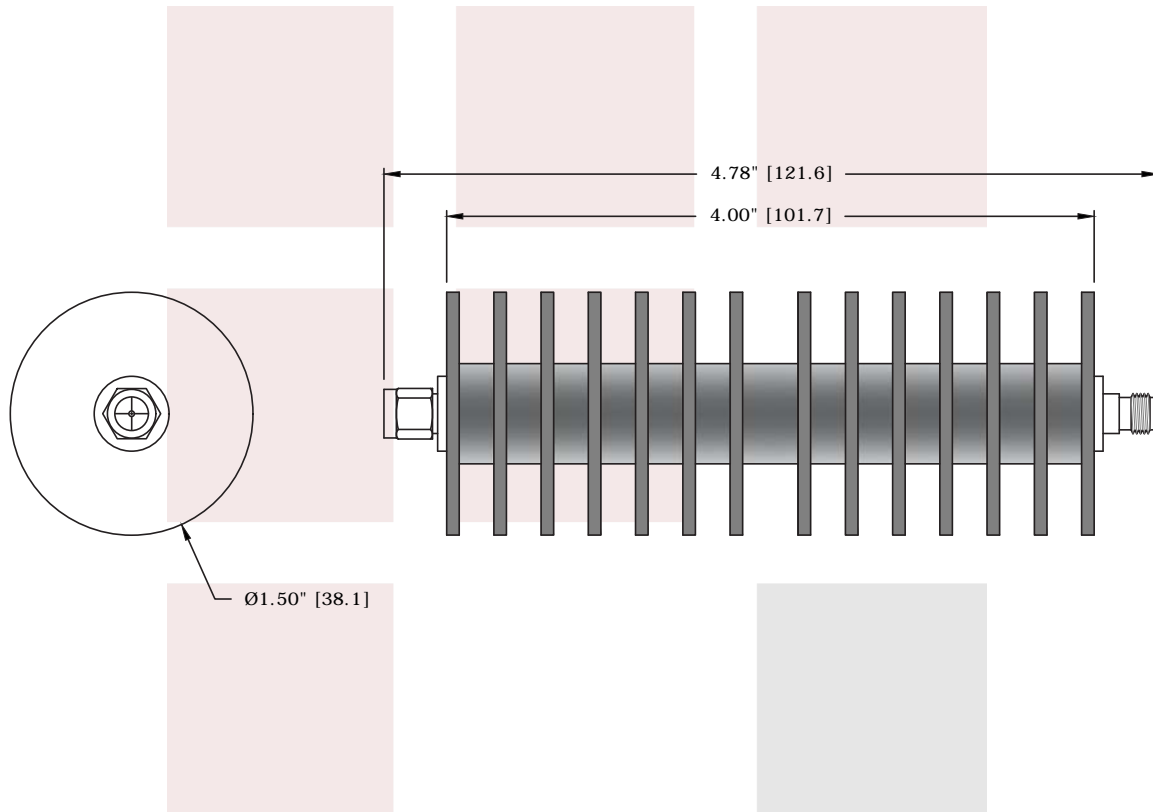


3 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 18 GHz Rated to 50 Watts, Heatsink Body, 1.35 VSWR from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [3 dB Fixed Attenuator SMA Male \(Plug\) to SMA Female \(Jack\) Up to 18 GHz Rated to 50 Watts, Heatsink Body, 1.35 VSWR SA18S50W-03](#)

URL: <https://www.fairviewmicrowave.com/3db-fixed-attenuator-sma-male-sma-female-50-watts-sa18s50w-03-p.aspx>

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|--|--------|---|-------|--------------------|-------------|
| <b>FAIRVIEW MICROWAVE INC.</b><br>ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM  |        | NOTES:<br>1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.<br>2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.<br>3. DIMENSIONS ARE IN INCHES [mm]. |       |                    |             |
| TITLE<br>3 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 18 GHz Rated to 50 Watts, Heatsink Body, 1.35 VSWR |        | DWG NO<br>SA18S50W-03   |       | CAGE CODE<br>3FKR5 |             |
| CAD FILE   | 111715 | SHEET   | SCALE | N/A                | SIZE A 5568 |