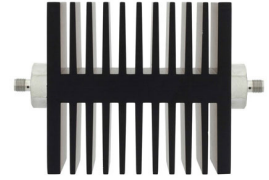


3 dB Fixed Attenuator SMA Female (Jack) to SMA Female (Jack) Directional Up to 18 GHz Rated to 50 Watts, Heatsink Body, 1.6 VSWR



SA18SFSF50W-03

Features

- Design: Fixed, Directional Attenuator
- Connector 1: SMA Female
- Connector 2: SMA Female
- Body Material and Plating: Black Anodized Aluminum Heatsink

Applications

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 SA18SFSF50W-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 female connectors. The Black Anodized Aluminum Heatsink body allows for efficient heat dissipation under high power usage conditions.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|---------------------|---------|---------|---------|-------|
| Frequency Range | DC | | 18 | GHz |
| Impedance | | 50 | | Ohms |
| Nominal Attenuation | | 3 | | dB |
| VSWR | | | 1.6:1 | |
| Input Power, CW | | | 50 | Watts |
| Input Power, Peak | | | 500 | Watts |

Specifications by Frequency

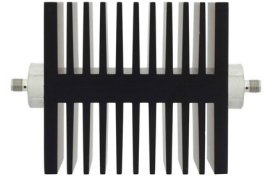
| Description | F1 | F2 | F3 | F4 | F5 | Units |
|---------------------------|---------|-----------|------------|----|----|-------|
| Frequency Range | DC to 6 | 6 to 12.4 | 12.4 to 18 | | | GHz |
| VSWR, Max | 1.3:1 | 1.45:1 | 1.6:1 | | | |
| Attenuation Accuracy, Typ | 0.75 | 0.75 | 1 | | | dB |

Mechanical Specifications

Size

| | |
|---------------------------|----------------------------------|
| Length | 3.22 in [81.79 mm] |
| Width/Diameter | 3 in [76.2 mm] |
| Height | 3 in [76.2 mm] |
| Weight | 1.796 lbs [814.65 g] |
| Body Material and Plating | Black Anodized Aluminum Heatsink |

3 dB Fixed Attenuator SMA Female (Jack) to SMA
Female (Jack) Directional Up to 18 GHz Rated
to 50 Watts, Heatsink Body, 1.6 VSWR



SA18SFSF50W-03

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

Connectors

| Description | Connector 1 | Connector 2 |
|--------------------------------------|-----------------------------|-----------------------------|
| Type | SMA Female | SMA Female |
| Contact Material and Plating | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Outer Conductor Material and Plating | | Stainless Steel, Passivated |
| Coupling Nut Material and Plating | Stainless Steel, Passivated | |
| Coupling Nut Plating Specification | Stainless Steel | |
| Hex Size | 11/16 In. | 11/16 In. |
| Body Material and Plating | Stainless Steel, Passivated | Stainless Steel, Passivated |

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 Female (Jack) to SMA Female (Jack) Directional Up to 18 GHz Rated to 50 Watts, Heatsink Body, 1.6 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.

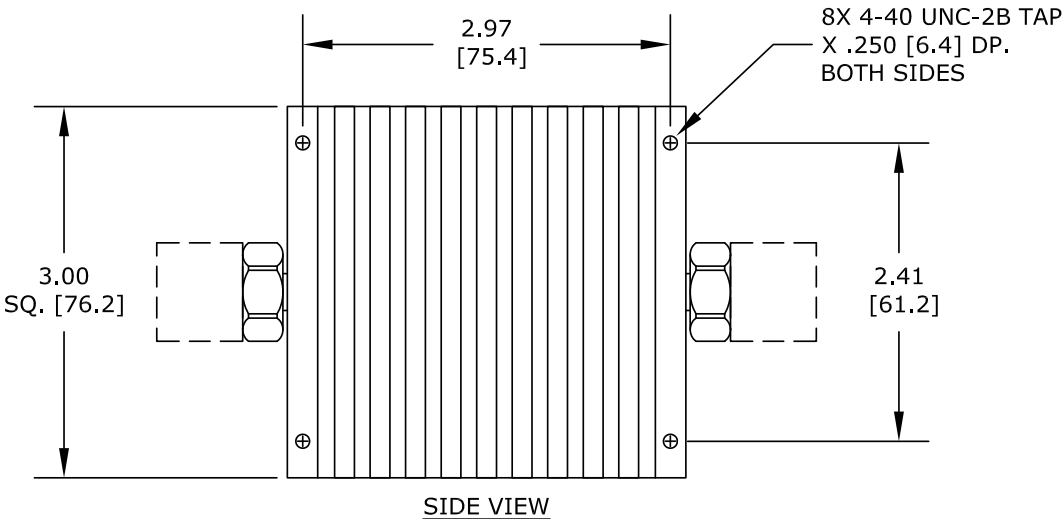
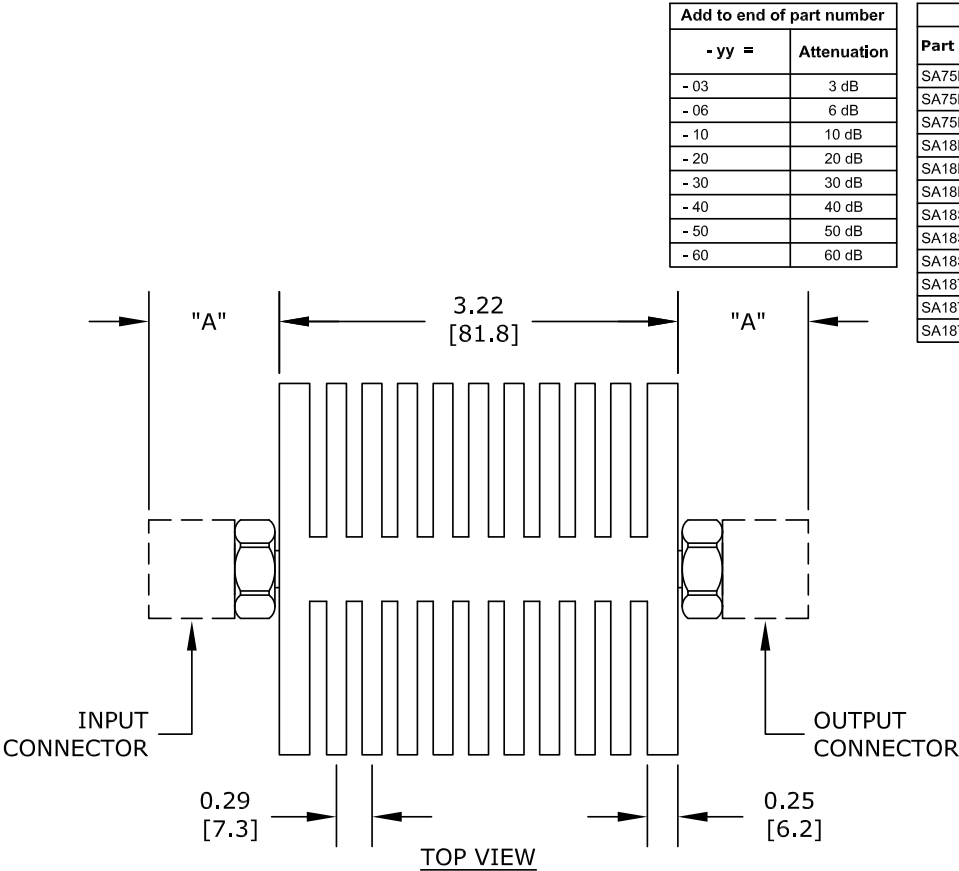
For additional information on this product, please click the following link: [3 dB Fixed Attenuator SMA Female \(Jack\) to SMA Female \(Jack\) Directional Up to 18 GHz Rated to 50 Watts, Heatsink Body, 1.6 VSWR SA18SFSF50W-03](#)

URL: <https://www.fairviewmicrowave.com/3db-fixed-attenuator-sma-female-sma-female-50-watts-sa18sfsf50w-03-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.

SA18SFSF50W-03 CAD Drawing

3 dB Fixed Attenuator SMA Female (Jack) to SMA Female (Jack) Directional
Up to 18 GHz Rated to 50 Watts, Heatsink Body, 1.6 VSWR



| Add to end of part number | |
|---------------------------|-------------|
| - yy = | Attenuation |
| - 03 | 3 dB |
| - 06 | 6 dB |
| - 10 | 10 dB |
| - 20 | 20 dB |
| - 30 | 30 dB |
| - 40 | 40 dB |
| - 50 | 50 dB |
| - 60 | 60 dB |

| Part Number Configuration | | |
|---------------------------|-----------------|------------------|
| Part Number | Input Connector | Output Connector |
| SA75DFDM50W | 7/16 Female | 7/16 Male |
| SA75DMD50W | 7/16 Male | 7/16 Female |
| SA75DFDF50W | 7/16 Female | 7/16 Female |
| SA18NFM50W | N Female | N Male |
| SA18NMNF50W | N Male | N Female |
| SA18NFNF50W | N Female | N Female |
| SA18SFSM50W | SMA Female | SMA Male |
| SA18SMSF50W | SMA Male | SMA Female |
| SA18SFSF50W | SMA Female | SMA Female |
| SA18TFTM50W | TNC Female | TNC Male |
| SA18TMTF50W | TNC Male | TNC Female |
| SA18TFTF50W | TNC Female | TNC Female |

| Table of Information | |
|----------------------|----------------|
| Connector Type | DIM "A" (REF.) |
| SMA Male | 0.7800 |
| SMA Female | 0.6300 |
| TNC Male | 0.9600 |
| TNC Female | 1.0600 |
| N Female | 1.0900 |
| N Male | 1.1300 |
| 7/16 Male | 1.2800 |
| 7/16 Female | 1.3200 |

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

DWG NO

SA18XXXX50w-yy

CAGE CODE

3FKR5

CAD FILE

063014

SHEET

SCALE N/A

SIZE A

2233