

50 dB Fixed Attenuator SMA Female (Jack) to SMA Female (Jack) Directional Up to 18 GHz Rated to 50 Watts, Heatsink Body, 1.6 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 SA18SFSF50W-50 is a 50 dB Fixed Attenuator that operates from DC to 18 GHz and is rated to 50 Watts. The versatile coaxial package uses 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:

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

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Nominal Attenuation		50		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
Range	DC to 6	6 to 12.4	12.4 to 18			GHz
VSWR, Max	1.3:1	1.45:1	1.6:1			
Atten Accuracy, Typ	1.25	2	2.5			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	1.843 lbs [835.97 g]
Body Material and Plating	Black Anodized Aluminum Heatsink

Configuration

Design	Fixed, Directional
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Connectors

Description	Connector 1	Connector 2
Type	SMA Female	SMA Female
Contact Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Outer Conductor Material & Plating		Stainless Steel, Passivated
Coupling Nut Material & Plating	Stainless Steel, Passivated	
Coupling Nut Plating Spec.	Stainless Steel	
Hex Size	16-Nov In.	16-Nov In.
Body Material & 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:

50 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: [50 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-50](#)

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

- 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
SA18NFMF50W	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

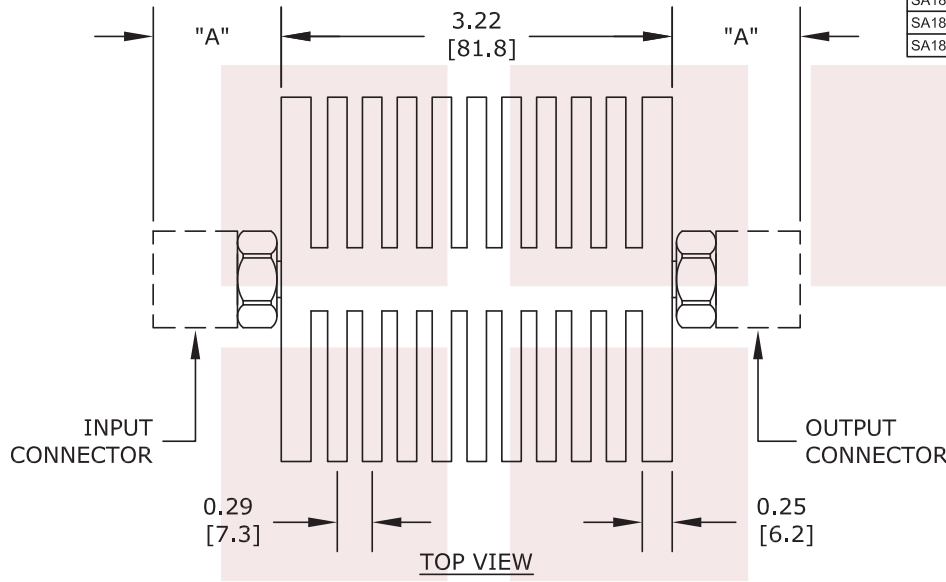
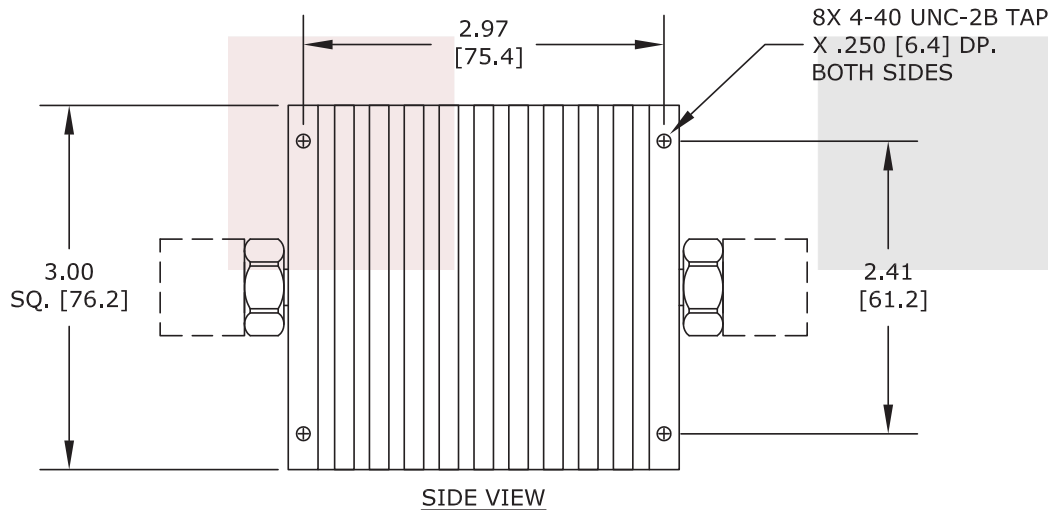


Table of Information	
Connector Type	DIM "A" (REF.)
SMA Male	0.7800
SMA Female	0.6300
TNC Male	0.9600
TNC Female	1.0600
N Female	1.0900
N Male	1.1300
7/16 Male	1.2800
7/16 Female	1.3200



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 50 dB Fixed Attenuator SMA Female (Jack) to SMA Female (Jack) Directional Up to 18 GHz Rated to 50 Watts, Heatsink Body, 1.6 VSWR		DWG NO SA18XXXX50w-yy		CAGE CODE 3FKR5	
CAD FILE	063014	SHEET	SCALE	N/A	SIZE A 2233