

20 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 18 GHz Rated to 5 Watts, Heatsink Body, 1.35 VSWR



SA18S5W-20

Features

- DC to 18 GHz Frequency Range
- Attenuation 20±1 dB
- Max Power 5 Watts (CW)
- VSWR < 1.35:1

Applications

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

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 SA18S5W-20 is a 20 dB Fixed Attenuator that operates from DC to 18 GHz and is rated to 5 Watts. The versatile coaxial package uses SMA male to 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		20		dB
Attenuation Accuracy		1		dB
VSWR			1.35:1	
Input Power, CW			5	Watts
derated linearly to 0.5W at +125°C				
Input Power, Peak			500	Watts
5µs pulse, 0.15% duty cycle				

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 4	4 to 12.4	12.4 to 18			GHz
VSWR, Max	1.15:1	1.25:1	1.35:1			

Mechanical Specifications

Size

- Length 1.22 in [30.99 mm]
- Width/Diameter 0.77 in [19.56 mm]
- Height 0 in [0 mm]

20 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 18 GHz Rated to 5 Watts, Heatsink Body, 1.35 VSWR



SA18S5W-20

Weight 0.0298 lbs [13.52 g]
Body Material and Plating Black Anodized Aluminum Heatsink

Configuration

Design Fixed
Package Style Connectorized Module

Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Female
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	MIL-PRF-39012	MIL-PRF-39012
Dielectric Type	Teflon	Teflon
Torque	8 in-lbs 0.9 Nm	
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

Environmental Specifications

Temperature

Operating Range -65 to +125 deg C
Storage Range -65 to +150 deg C

Environmental Specification Notes:
Designed to meet environmental requirements of MIL-DTL-3933.

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

Plotted and Other Data

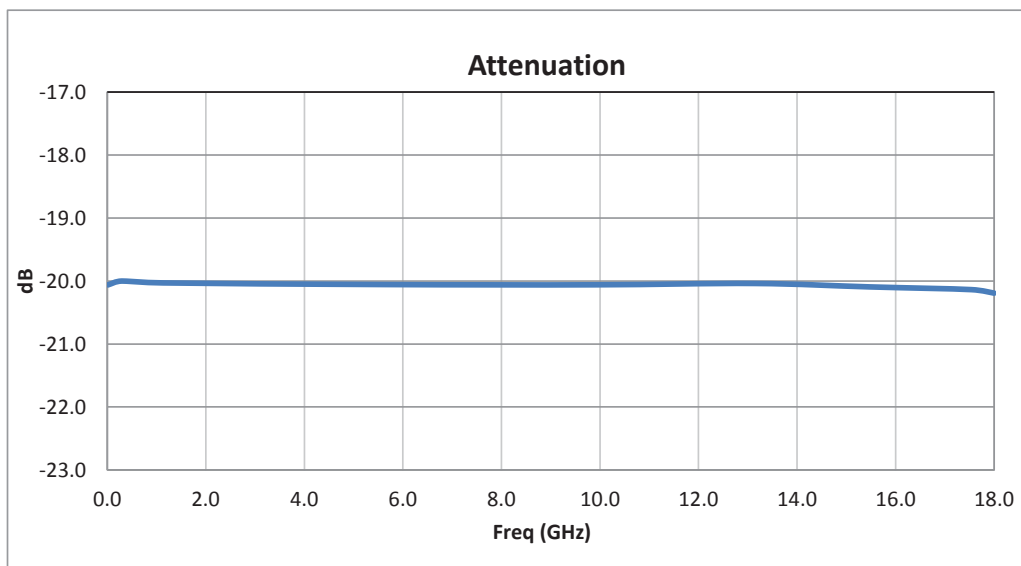
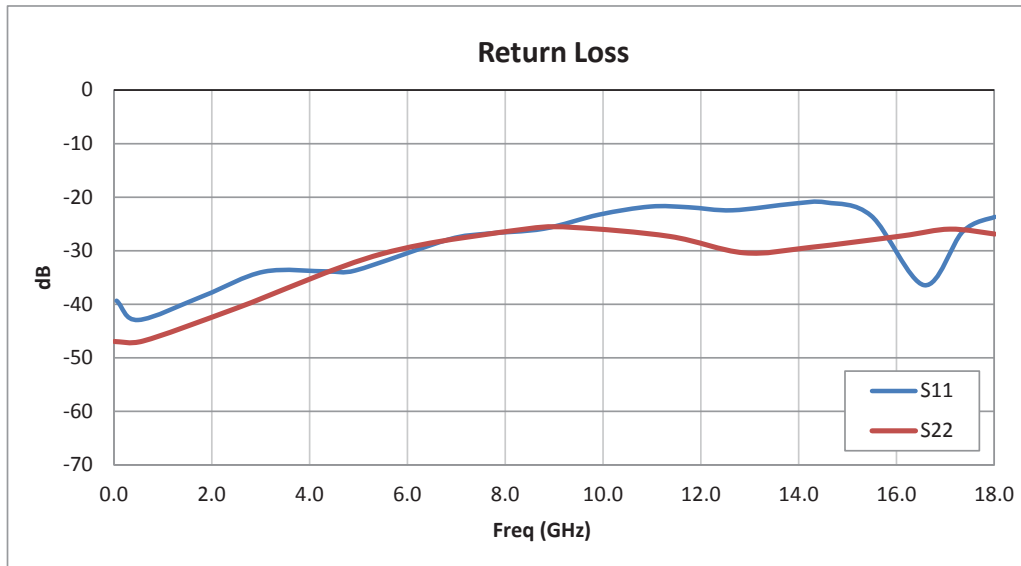
Notes:

20 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 18 GHz Rated to 5 Watts, Heatsink Body, 1.35 VSWR



SA18S5W-20

Typical Performance Data



20 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 18 GHz Rated to 5 Watts, Heatsink Body, 1.35 VSWR



SA18S5W-20

20 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 18 GHz Rated to 5 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.

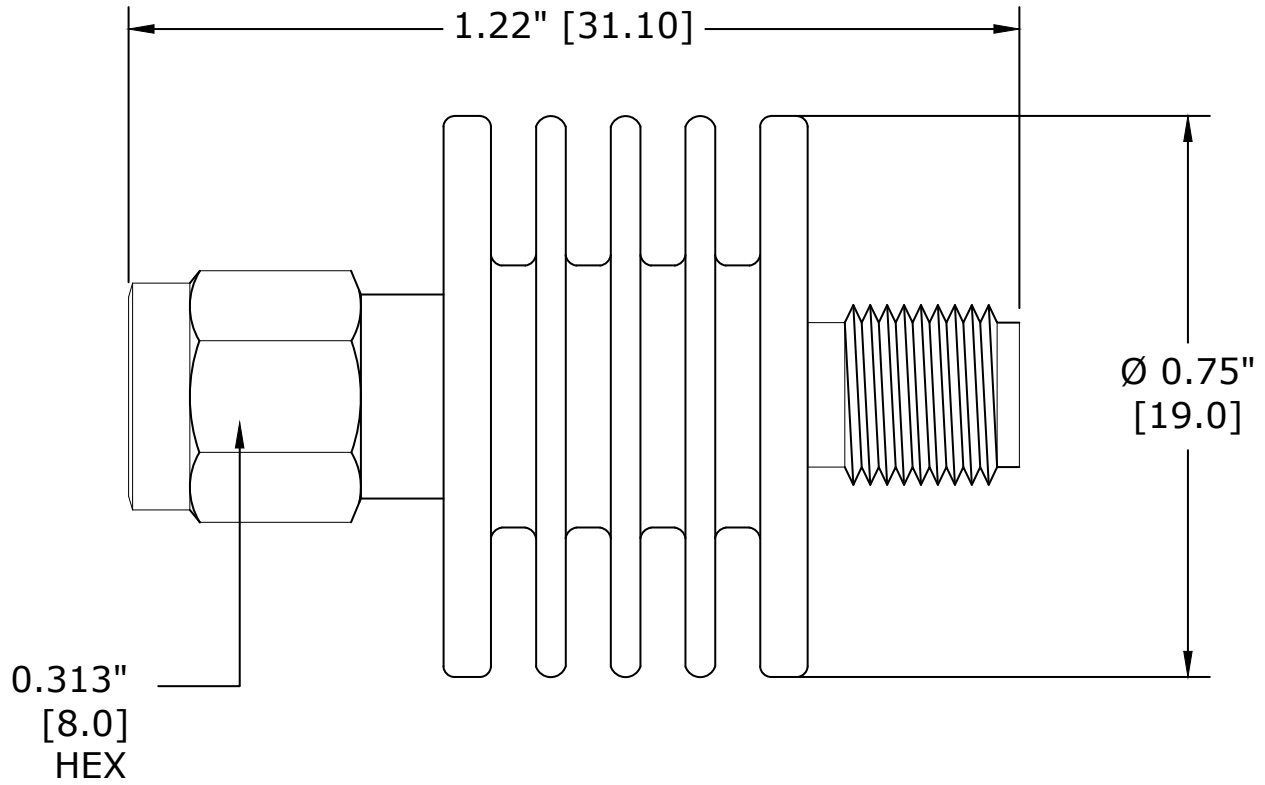
For additional information on this product, please click the following link: [20 dB Fixed Attenuator SMA Male \(Plug\) to SMA Female \(Jack\) Up to 18 GHz Rated to 5 Watts, Heatsink Body, 1.35 VSWR SA18S5W-20](https://www.fairviewmicrowave.com/20db-fixed-attenuator-sma-male-sma-female-5-watts-sa18s5w-20-p.aspx)

URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-sma-male-sma-female-5-watts-sa18s5w-20-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.

SA18S5W-20 CAD Drawing

20 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 18 GHz Rated to 5 Watts, Heatsink Body, 1.35 VSWR



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		CAGE CODE				
	SA18S5W-20		3FKR5				
CAD FILE	092914	SHEET	SCALE	N/A	SIZE	A	150