

20 dB Fixed Attenuator SMA Reverse Polarity Male
To SMA Reverse Polarity Female Up To 3 GHz
Rated To 2 Watts With Brass Gold Body



SA3SR-20

Features

- DC to 3 GHz Frequency Range
- Attenuation 20±0.3 dB
- Max Power 2 Watts (CW)
- VSWR < 1.25:1

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 SA3SR-20 is a 20 dB Fixed Attenuator that operates from DC to 3 GHz and is rated to 2 Watts. The versatile coaxial package uses reverse polarity SMA male to reverse polarity SMA female connectors.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
Impedance		50		Ohms
Nominal Attenuation		20		dB
VSWR			1.25:1	
Input Power, CW			2	Watts
Input Power, Peak for 25 µsec.			100	Watts

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 2	2 to 3				GHz
VSWR, Max	1.15:1	1.25:1				
Attenuation Accuracy, Typ	0.2	0.3				dB

Electrical Specification Notes:

Power coefficient of 0.001 dB/W (change in attenuation with increase in power)/Temperature coefficient of 0.001 dB/°C max., 0.0003 dB/°C typ.

Mechanical Specifications

Size

Length 0.97 in [24.64 mm]

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Width/Diameter	0.315 in [8 mm]
Height	0.35 in [8.89 mm]
Weight	0.0121 lbs [5.49 g]
Body Material and Plating	Brass, Gold
Configuration	
Design	Fixed
Package Style	Connectorized Module

Connectors

Description	Connector 1	Connector 2
Type	SMA Male Reverse Polarity	SMA Female Reverse Polarity
Contact Material and Plating	Phosphor Bronze, Gold	Phosphor Bronze, Gold
Contact Plating Specification	4 µ-in min.	4 µ-in min.
Dielectric Type	Teflon	Teflon
Hex Size	5/16 inch	
Body Material and Plating	Brass, Gold	Brass, Gold
Body Plating Specification	4 µ-in min.	4 µ-in min.

Environmental Specifications

Temperature	
Operating Range	-50 to +80 deg C

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

Plotted and Other Data

Notes:

Typical Performance Data

20 dB Fixed Attenuator SMA Reverse Polarity Male To SMA Reverse Polarity Female Up To 3 GHz Rated To 2 Watts With Brass Gold 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 Lewisville, Texas. Fairview Microwave is RF on-demand.

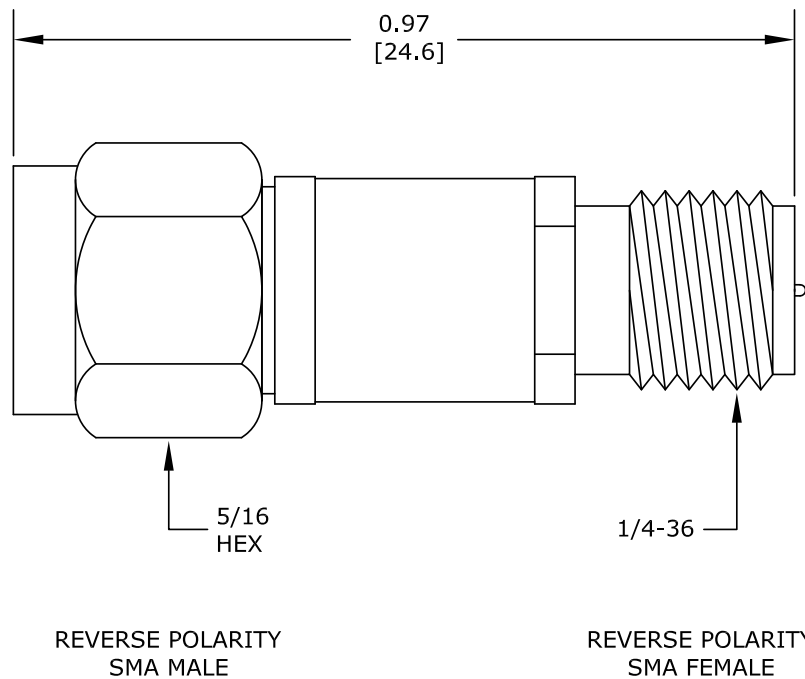
For additional information on this product, please click the following link: [20 dB Fixed Attenuator SMA Reverse Polarity Male To SMA Reverse Polarity Female Up To 3 GHz Rated To 2 Watts With Brass Gold Body SA3SR-20](#)

URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-sma-male-sma-female-2-watts-sa3sr-20-p.aspx>

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SA3SR-20 CAD Drawing

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Female Up To 3 GHz Rated To 2 Watts With Brass Gold Body



GENERAL TOLERANCES	
0.000-0.197	±0.0020
0.197-0.394	±0.0027
0.394-0.787	±0.0039
0.787-1.181	±0.0059
>1.181	±0.078

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES

P/N	ATTEN.
SA3SR-10	10 dB
SA3SR-15	15 dB
SA3SR-20	20 dB

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		
	SA3SR		3FKR5		
	CAD FILE	020317	SHEET	SCALE	N/A
				SIZE	A
					2233