

20 dB Fixed Attenuator SMA Male (Plug) to
SMA Female (Jack) Up to 4 GHz Rated to
25 Watts, Heatsink Body, 1.25 VSWR



SA4S252-20

Features

- Bidirectional
- DC to 4 GHz Frequency Range
- Attenuation 20±0.6 dB
- Max Power 25 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 SA4S252-20 is a 20 dB Fixed Attenuator that operates from DC to 4 GHz and is rated to 25 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		4	GHz
Impedance		50		Ohms
Nominal Attenuation		20		dB
Attenuation Accuracy		0.6		dB
VSWR			1.25:1	
Passive Intermodulation			-100	dBc
Input Power, CW			25	Watts
derated linearly to 2.5W @ 125°C				
Input Power, Peak			1	kWatts
5µs pulse, 1.25% duty cycle				

Electrical Specification Notes:

Passive intermodulation specified at 910MHz with two input signals at 935MHz and 960MHz with average carrier power levels of +43dBm each.

Mechanical Specifications

Size

Length	3.25 in [82.55 mm]
Width/Diameter	1.5 in [38.1 mm]
Height	0 in [0 mm]
Weight	0.2576 lbs [116.85 g]

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Body Material and Plating	Black Anodized Aluminum Heatsink
Configuration	
Design	Fixed, Bidirectional
Package Style	Connectorized

Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Female
Contact Material and Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Specification	MIL-G-45204	MIL-G-45204
Outer Conductor Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Material and Plating	Brass, Nickel	
Hex Size	5/16 in	
Body Material and Plating	Brass, Nickel	Brass, Nickel

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

20 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 4 GHz Rated to 25 Watts, Heatsink Body, 1.25 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 4 GHz Rated to 25 Watts, Heatsink Body, 1.25 VSWR SA4S252-20](#)

URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-sma-male-sma-female-25-watts-sa4s252-20-p.aspx>

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