

20 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 6 GHz Rated to 10 Watts, Heatsink Body, 1.2 VSWR



SA6S10W-20

Features

- DC to 6 GHz Frequency Range
- Attenuation 20dB Typical
- Max Power 10 Watts (CW)
- VSWR < 1.2:1

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 SA6S10W-20 is a 20 dB Fixed Attenuator that operates from DC to 6 GHz and is rated to 10 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		6	GHz
Impedance		50		Ohms
Nominal Attenuation		20		dB
Attenuation Accuracy		0.7		dB
VSWR			1.2:1	
Input Power, CW			10	Watts

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 3	3 to 6				GHz
VSWR, Max	1.15:1	1.2:1				

Electrical Specification Notes:
Values at +25°C, sea level.

Mechanical Specifications

Size

- Length 1.86 in [47.24 mm]
- Width/Diameter 0.62 in [15.75 mm]
- Weight 0.0527 lbs [23.9 g]
- Body Material and Plating Black Anodized Aluminum Heatsink

20 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 6 GHz Rated to 10 Watts, Heatsink Body, 1.2 VSWR



SA6S10W-20

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-G-45204	MIL-G-45204
Torque	7 in-lbs 0.79 Nm	
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

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 6 GHz Rated to 10 Watts, Heatsink Body, 1.2 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.

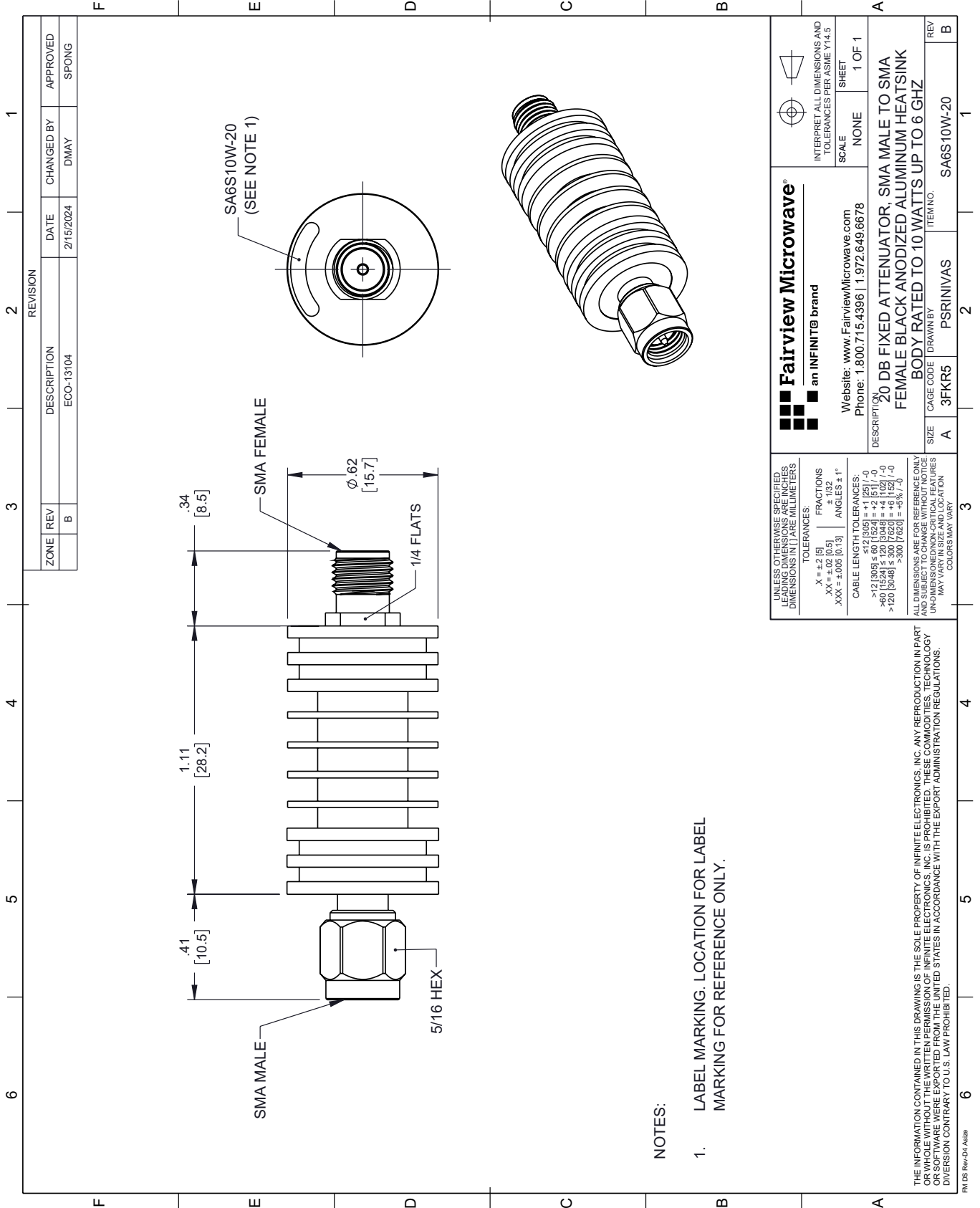
For additional information on this product, please click the following link: [20 dB Fixed Attenuator SMA Male \(Plug\) to SMA Female \(Jack\) Up to 6 GHz Rated to 10 Watts, Heatsink Body, 1.2 VSWR SA6S10W-20](#)

URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-sma-male-sma-female-10-watts-sa6s10w-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.

SA6S10W-20 CAD Drawing

20 dB Fixed Attenuator SMA Male (Plug) to SMA Female (Jack) Up to 6 GHz Rated to 10 Watts, Heatsink Body, 1.2 VSWR



NOTES:

1. LABEL MARKING. LOCATION FOR LABEL MARKING FOR REFERENCE ONLY.

<p>Fairview Microwave® an INFINIT® brand</p> <p>Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE SHEET: 1 OF 1</p>		
<p>DESCRIPTION: 20 DB FIXED ATTENUATOR, SMA MALE TO SMA FEMALE BLACK ANODIZED ALUMINUM HEATSINK BODY RATED TO 10 WATTS UP TO 6 GHZ</p>				
<p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [] ARE MILLIMETERS</p> <p>TOLERANCES: .X = ±.2 [5] FRACTIONS ± 1/32 .XX = ±.02 [0.5] ANGLES ± 1° .XXX = ±.005 [0.13]</p> <p>CABLE LENGTH TOLERANCES: >12 [305] ≤ 60 [1524] = ±.1 [25] / -0 >60 [1524] ≤ 120 [3048] = ±.1 [25] / -0 >120 [3048] ≤ 300 [7620] = ±.5% / -0</p> <p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.</p>	<p>REV B</p>	<p>DATE 2/15/2024</p>	<p>CHANGED BY DIMAY</p>	<p>APPROVED SPONG</p>
<p>ZONE REV B</p>	<p>DESCRIPTION ECO-13104</p>	<p>REVISION</p>	<p>ECO-13104</p>	
<p>FAIRVIEW MICROWAVE</p>	<p>3FKR5</p>	<p>PSRINIVAS</p>	<p>SA6S10W-20</p>	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVISION CONTRARY TO U.S. LAW PROHIBITED.

PM 06 Rev-D4 Alt2b