

20 dB Fixed Attenuator 2.92mm Male (Plug) to 2.92mm Female (Jack) Up to 40 GHz Rated to 0.5 Watts, Passivated Stainless Steel Body, 1.5 VSWR



## SA4012-20

### Features

- DC to 40 GHz Frequency Range
- Attenuation 20±1.8 dB
- Max Power 0.5 Watt (CW)
- VSWR < 1.5:1

### 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 SA4012-20 is a 20 dB Fixed Attenuator that operates from DC to 40 GHz and is rated to 0.5 Watts. The versatile coaxial package uses 2.92mm male to 2.92mm female connectors.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Nominal Attenuation		20		dB
VSWR			1.5:1	
Input Power, CW			0.5	Watts
derated linearly to 0.05W at +125°C				

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 18	18 to 26.5	26.5 to 40			GHz
VSWR, Max	1.3:1	1.5:1	1.5:1			
Attenuation Accuracy, Typ	0.6	0.7	1.8			dB

### Mechanical Specifications

#### Size

Length	0.87 in [22.1 mm]
Width/Diameter	0.315 in [8 mm]
Height	0 in [0 mm]
Weight	0.0135 lbs [6.12 g]
Body Material and Plating	Passivated Stainless Steel

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Configuration

Design

Package Style

Fixed Connectorized Module

Connectors

Description	Connector 1	Connector 2
Type	2.92mm Male	2.92mm Female
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	MIL-PRF-39012	MIL-PRF-39012
Hex Size	5/16 inch	
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

Mechanical Specification Notes:  
The connectors use high temperature plastic bead dielectric.

Environmental Specifications

Temperature

Operating Range

-55 to +125 deg C

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

Plotted and Other Data

Notes:

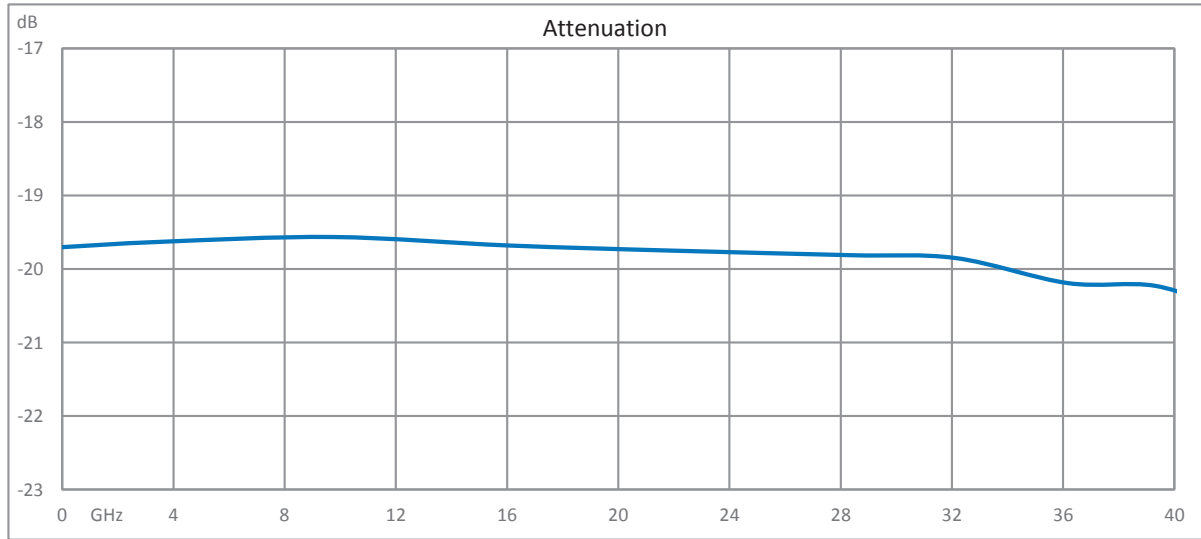
Typical Performance Data



20 dB Fixed Attenuator 2.92mm Male (Plug) to 2.92mm Female (Jack) Up to 40 GHz Rated to 0.5 Watts, Passivated Stainless Steel Body, 1.5 VSWR



## SA4012-20



20 dB Fixed Attenuator 2.92mm Male (Plug) to 2.92mm Female (Jack) Up to 40 GHz Rated to 0.5 Watts, Passivated Stainless Steel Body, 1.5 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 2.92mm Male \(Plug\) to 2.92mm Female \(Jack\) Up to 40 GHz Rated to 0.5 Watts, Passivated Stainless Steel Body, 1.5 VSWR SA4012-20](https://www.fairviewmicrowave.com/20db-fixed-attenuator-2.92mm-male-2.92mm-female-0.5-watts-sa4012-20-p.aspx)

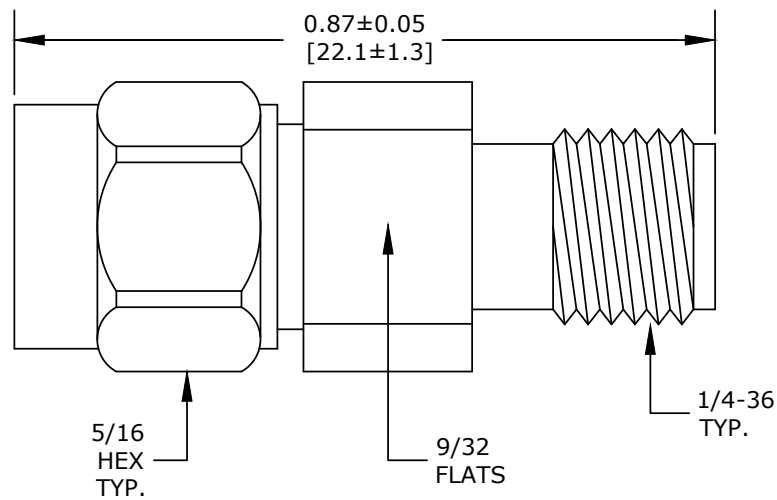
URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-2.92mm-male-2.92mm-female-0.5-watts-sa4012-20-p.aspx>

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SA4012-20 CAD Drawing

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STANDARD TOLERANCES	
.X	±0.03
.XX	±0.010
.XXX	±0.005

\*STANDARD TOLERANCES APPLY  
ONLY TO DIMENSIONS IN INCHES

FAIRVIEW MICROWAVE INC.		NOTES:			
ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		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	
		SA4012-20		3FKR5	
		CAD FILE	SHEET	SCALE	SIZE
		031716		N/A	A
				3045	