

**2 dB Fixed Attenuator 2.92mm Male To 2.92mm Female Up To 40 GHz Rated To 0.5 Watts With Passivated Stainless Steel Body**

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 selections and ships them same day. The SA4012-02 is a 2 dB Fixed Attenuator that operates from DC to 40 GHz and is rated to 0.5 Watt. The versatile coaxial package uses 2.92mm male to 2.92mm female connectors and is also REACH and RoHS compliant.

**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Nominal Attenuation		2		dB
VSWR			1.5:1	
Input Power, CW derated linearly to 0.05W at +125°C			0.5	Watts

**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Range	DC to 18	18 to 26.5	26.5 to 40			GHz
VSWR, Max	1.3:1	1.5:1	1.5:1			
Atten Accuracy, Typ	±0.5	±0.6	±1			dB

**Mechanical Specifications**

<b>Size</b>	
Length	0.87 in [22.1 mm]
Width/Diameter	0.315 in [8 mm]
Weight	0.012 lbs [5.44 g]
Body Material and Plating	Passivated Stainless Steel

**Configuration**

Design	Fixed
Package Style	Connectorized Module



**Features:**

- DC to 40 GHz Frequency Range
- Attenuation 2±1 dB
- Max Power 0.5 Watt (CW)
- VSWR < 1.5:1

**Applications:**

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

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**Connectors**

Description	Connector 1	Connector 2
Type	2.92mm Male	2.92mm Female
Contact Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Spec.	MIL-PRF-39012	MIL-PRF-39012
Hex Size	5/16 inch	
Body Material & 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

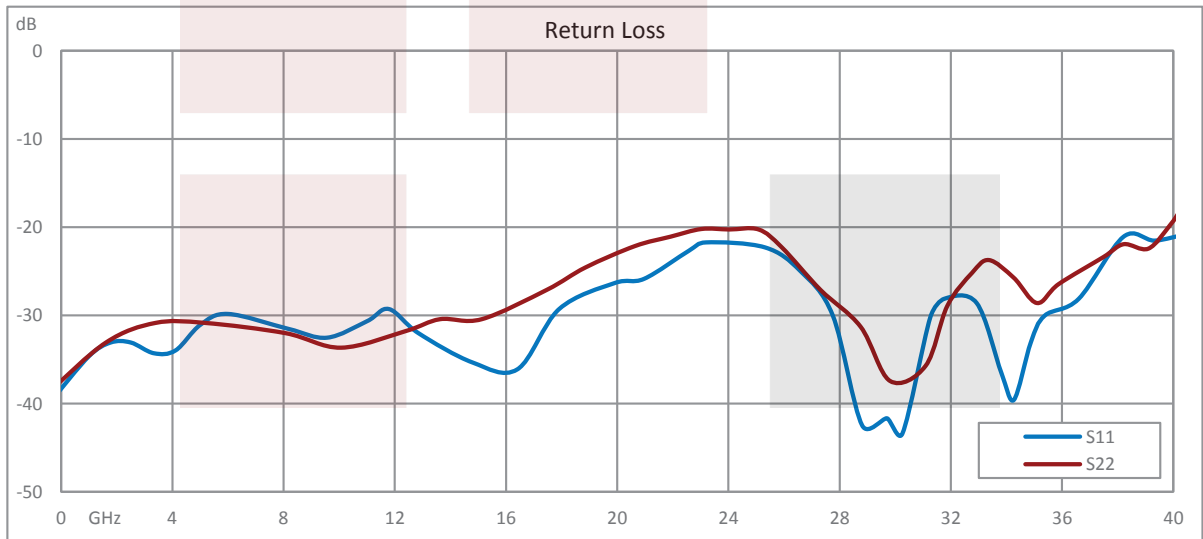
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

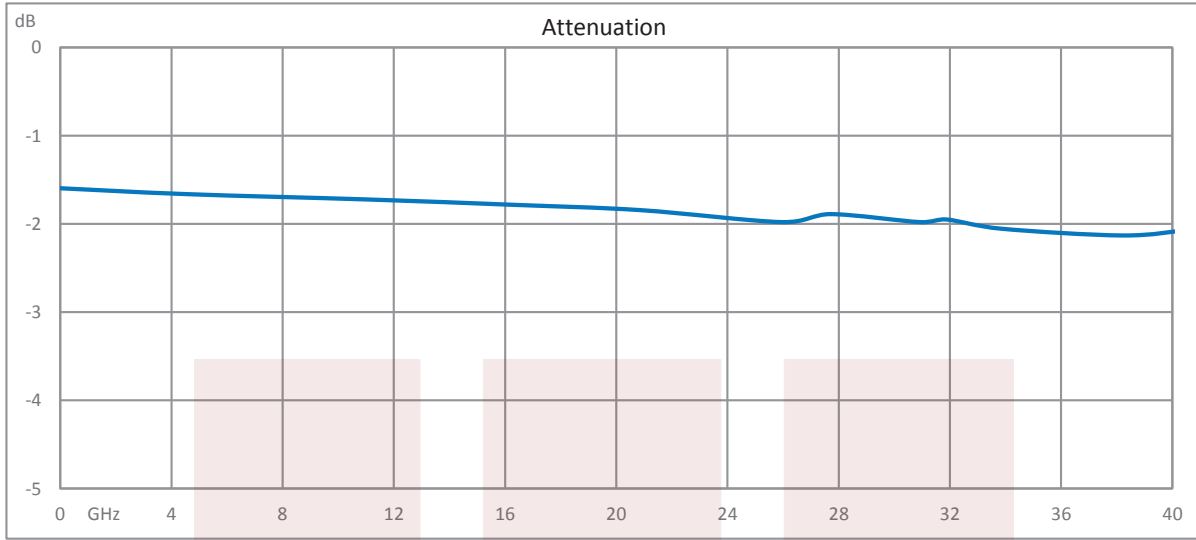
RoHS Compliant Yes  
 REACH Compliant 12/17/2015

**Plotted and Other Data**

Notes:

**Typical Performance Data**



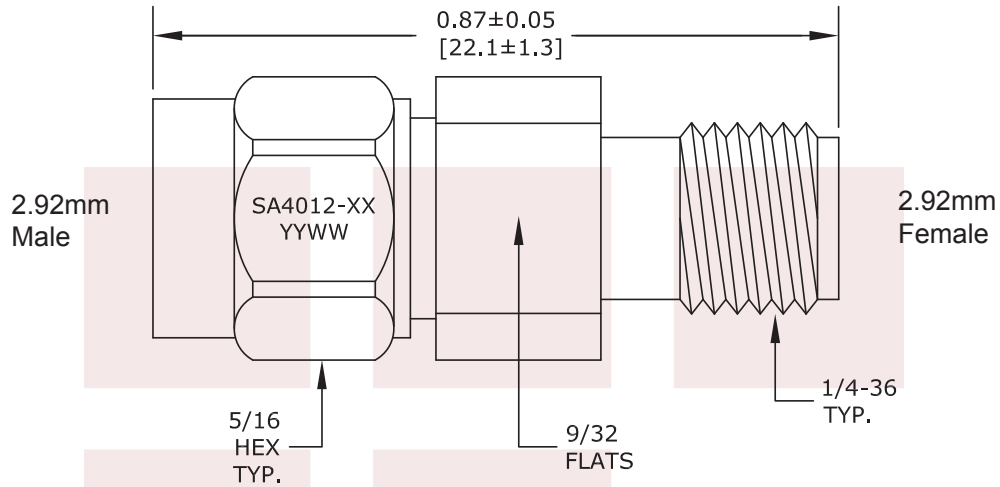


2 dB Fixed Attenuator 2.92mm Male To 2.92mm Female Up To 40 GHz Rated To 0.5 Watts With Passivated Stainless Steel Body from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [2 dB Fixed Attenuator 2.92mm Male To 2.92mm Female Up To 40 GHz Rated To 0.5 Watts With Passivated Stainless Steel Body SA4012-02](https://www.fairviewmicrowave.com/2db-fixed-attenuator-2.92mm-male-2.92mm-female-0.5-watts-sa4012-02-p.aspx)

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The information contained in 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 any liability arising out of the use of any part or documentation.



P/N	ATTEN.
SA4012-00	0 dB
SA4012-01	1 dB
SA4012-02	2 dB
SA4012-03	3 dB
SA4012-04	4 dB
SA4012-05	5 dB

P/N	ATTEN.
SA4012-06	6 dB
SA4012-08	8 dB
SA4012-10	10 dB
SA4012-15	15 dB
SA4012-20	20 dB
SA4012-30	30 dB

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

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

<b>FAIRVIEW MICROWAVE INC.</b> 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 2 dB Fixed Attenuator 2.92mm Male To 2.92mm Female Up To 40 GHz Rated To 0.5 Watts With Passivated Stainless Steel Body		DWG NO SA4012		CAGE CODE 3FKR5	
CAD FILE	031716	SHEET	SCALE	N/A	SIZE A 3045