

20 dB Fixed Attenuator 1.85mm Male (Plug) to 1.85mm Female (Jack) Up to 65 GHz Rated to 1 Watt, Passivated Stainless Steel Body, 1.65 VSWR

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 SA6510-20 is a 20 dB Fixed Attenuator that operates from DC to 65 GHz and is rated to 1 Watt. The versatile coaxial package uses 1.85mm male to 1.85mm female connectors and is also REACH and RoHS compliant.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		65	GHz
Impedance		50		Ohms
Nominal Attenuation		20		dB
VSWR			1.65:1	
Input Power, CW derated linearly to 0.1W at +100°C			1	Watt

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Range	DC to 26.5	26.5 to 40	40 to 60	60 to 65		GHz
VSWR, Max	1.35:1	1.55:1	1.65:1	1.65:1		
Atten Accuracy, Typ	1	1.25	2	2.5		dB

Mechanical Specifications

Size

Length	0.88 in [22.35 mm]
Width/Diameter	0.312 in [7.92 mm]
Weight	0.01 lbs [4.54 g]
Body Material and Plating	Passivated Stainless Steel

Configuration

Design	Fixed
Package Style	Connectorized Module



Features:

- DC to 65 GHz Frequency Range
- Attenuation 20±2.5 dB
- Max Power 1 Watt (CW)
- VSWR < 1.65:1

Applications:

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

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Connectors

Description	Connector 1	Connector 2
Type	1.85mm Male	1.85mm Female
Contact Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Spec.	MIL-PRF-39012	MIL-PRF-39012
Dielectric Type	Teflon	Teflon
Coupling Nut Material & Plating	Passivated Stainless Steel	
Body Material & Plating	Passivated Stainless Steel	Passivated Stainless Steel

Environmental Specifications
Temperature

Operating Range

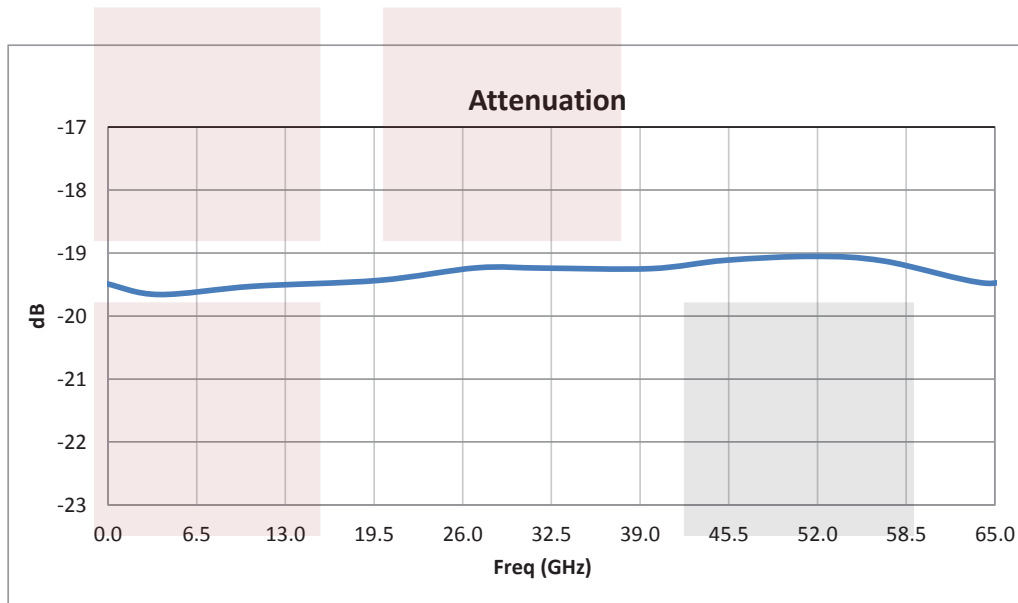
-55 to +100 deg C

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

Plotted and Other Data

Notes:

Typical Performance Data



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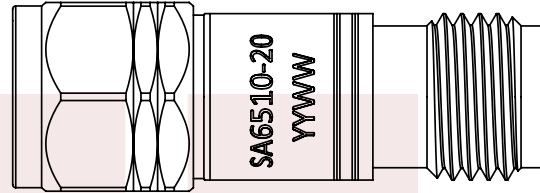
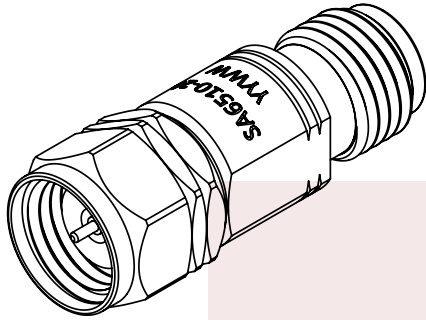
For additional information on this product, please click the following link: [20 dB Fixed Attenuator 1.85mm Male \(Plug\) to 1.85mm Female \(Jack\) Up to 65 GHz Rated to 1 Watt, Passivated Stainless Steel Body, 1.65 VSWR SA6510-20](#)

URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-1.85mm-male-1.85mm-female-1-watt-sa6510-20-p.aspx>

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.

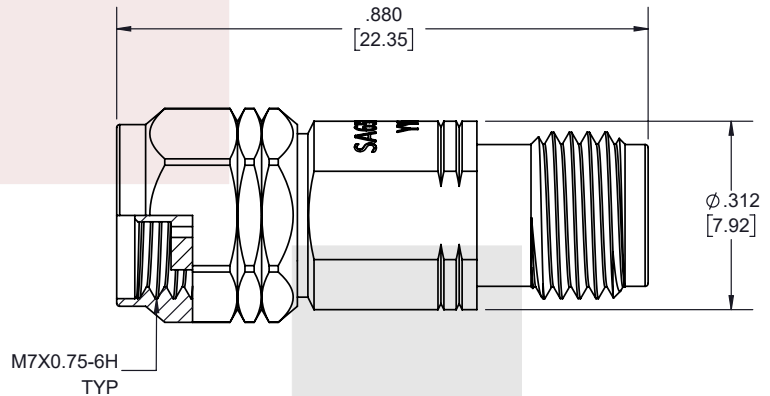
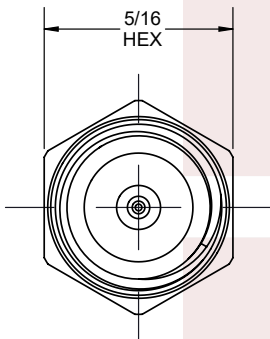


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
B	PE7403-10 SA6510-10 20220429	6/7/2022	S. PONG



1.85mm MALE

1.85mm FEMALE



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TITLE
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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
.X = ±.2 [5.08]	FRACTIONS ± 1/32	L ≤ 12 [305] = +1 [25] / -0	
.XX = ±.02 [.51]		12 [305] < L ≤ 60 [1524] = +2 [51] / -0	
.XXX = ±.005 [.13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0	
		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0	
		300 [7620] < L = +5%L / -0	

THIRD-ANGLE PROJECTION
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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	ITEM NO. SA6510-20	REV B
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T-Rev.D