

20 dB Fixed Attenuator for Cryogenic Application,
2.92mm Male to 2.92mm Female, DC to 40 GHz
Rated to 1 Watt Passivated Stainless Steel Body



FMAT7703-20

Features

- Cryogenic Operating Temperature Range -265.15 to 125Deg °C
- Bidirectional
- DC to 40 GHz Range
- Attenuation 20 +/- 1dB
- 1 Watt Average Input Power
- VSWR <1.4:1

Applications

- Quantum Computing
- Precision Measurements
- Instrumentation
- Prototyping and Characterization

Description

Fairview Microwave carries a wide range of fixed attenuators with a broad selection of attenuation levels, frequency ranges, and power dissipation ranges. RF microwave attenuators (also known as RF pads) lower the amplitude of a signal (attenuate) a known amount and can be used in a wide variety of applications. These attenuator pads are used when a signal needs to be reduced to protect measurement equipment or other circuitry, to extend the range of power meters and amplifiers, and to impedance match 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 20 dB Fixed Attenuator FMAT7703-20 is rated to 1 Watt and operates from DC to 40 GHz. The versatile coaxial package uses 2.92mm male to 2.92mm female connectors. The FMAT7703 series are specially designed and manufactured for cryogenic applications with RF performances guaranteed at 4 kelvin.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Nominal Attenuation		20		dB
Attenuation Accuracy		0.6	±1	dB
VSWR		1.3:1	1.4:1	

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 26.5	26.5 to 40				GHz
VSWR, Max	1.3:1	1.4:1				
Attenuation Accuracy, Max	±0.6	±1				dB

Mechanical Specifications

Size

Length	0.87 in [22.1 mm]
Width/Diameter	0.31 in [7.87 mm]
Height	0.31 in [7.87 mm]
Weight	1 lbs [453.59 g]
Body Material and Plating	Passivated Stainless Steel

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Configuration		
Design	Fixed, Bidirectional	
Connectors		
Description	Connector 1	Connector 2
Type	2.92mm Male	2.92mm Female
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold

Environmental Specifications

Temperature	
Operating Range	-269.15 to +125 deg C

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

Plotted and Other Data

Notes:

Typical Performance Data

20 dB Fixed Attenuator for Cryogenic Application, 2.92mm Male to 2.92mm Female, DC to 40 GHz Rated to 1 Watt 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 Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [20 dB Fixed Attenuator for Cryogenic Application, 2.92mm Male to 2.92mm Female, DC to 40 GHz Rated to 1 Watt Passivated Stainless Steel Body FMAT7703-20](#)

URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-2.92mm-male-2.92mm-female-fmat7703-20-p.aspx>

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FMAT7703-20 CAD Drawing

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