

10 dB Fixed Attenuator 1.0mm Male (Plug) to 1.0mm Female (Jack) Up to 110 GHz Rated to 0.5 Watts
Passivated Stainless Steel Body 1.8:1 VSWR



FMAT7454-10

Features

- DC to 110 GHz Frequency Range
- 1.0 mm Connectorized Design
- Attenuation 10 dB
- Max Power 0.5 Watts (CW)
- Typical VSWR of 1.8:1

Applications

- Instrumentation
- Precision Measurements
- Prototyping and Characterization
- Production Systems

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 10 dB Fixed Attenuator FMAT7454-10 is rated to 0.5 Watts and operates from DC to 110 GHz. The versatile coaxial package uses 1.0 mm male to 1.0 mm female connectors.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		110	GHz
Impedance		50		Ohms
Nominal Attenuation		10		dB
VSWR		1.8:1	2.5:1	
Input Power, CW			0.5	Watts

Derated linearly to 10% @ 100°C from 25°C

Specifications by Frequency

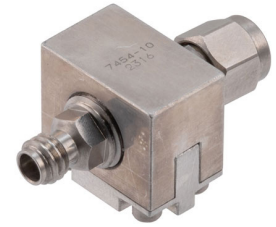
Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 26.5	26.5 to 40	40 to 60	60 to 110		GHz
VSWR, Max	1.35:1	1.55:1	1.65:1	2.5:1		
Attenuation Accuracy, Typ	0.75	1.25	1.5	1.75		dB

Mechanical Specifications

Size

Length	0.5 in [12.7 mm]
Width/Diameter	0.92 in [23.37 mm]
Height	0.46 in [11.68 mm]
Weight	0.04 lbs [18.14 g]
Body Material and Plating	Passivated Stainless Steel

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Configuration

Design	Fixed, Bi-Directional
Package Style	Connectorized

Connectors

Description	Connector 1	Connector 2
Type	1.0mm Male	1.0mm Female
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	Teflon	Teflon
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

Environmental Specifications

Temperature

Operating Range	-55 to +100 deg C
Storage Range	-55 to +100 deg C

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

Plotted and Other Data

Notes:

Typical Performance Data

10 dB Fixed Attenuator 1.0mm Male (Plug) to 1.0mm Female (Jack) Up to 110 GHz Rated to 0.5 Watts Passivated Stainless Steel Body 1.8:1 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.

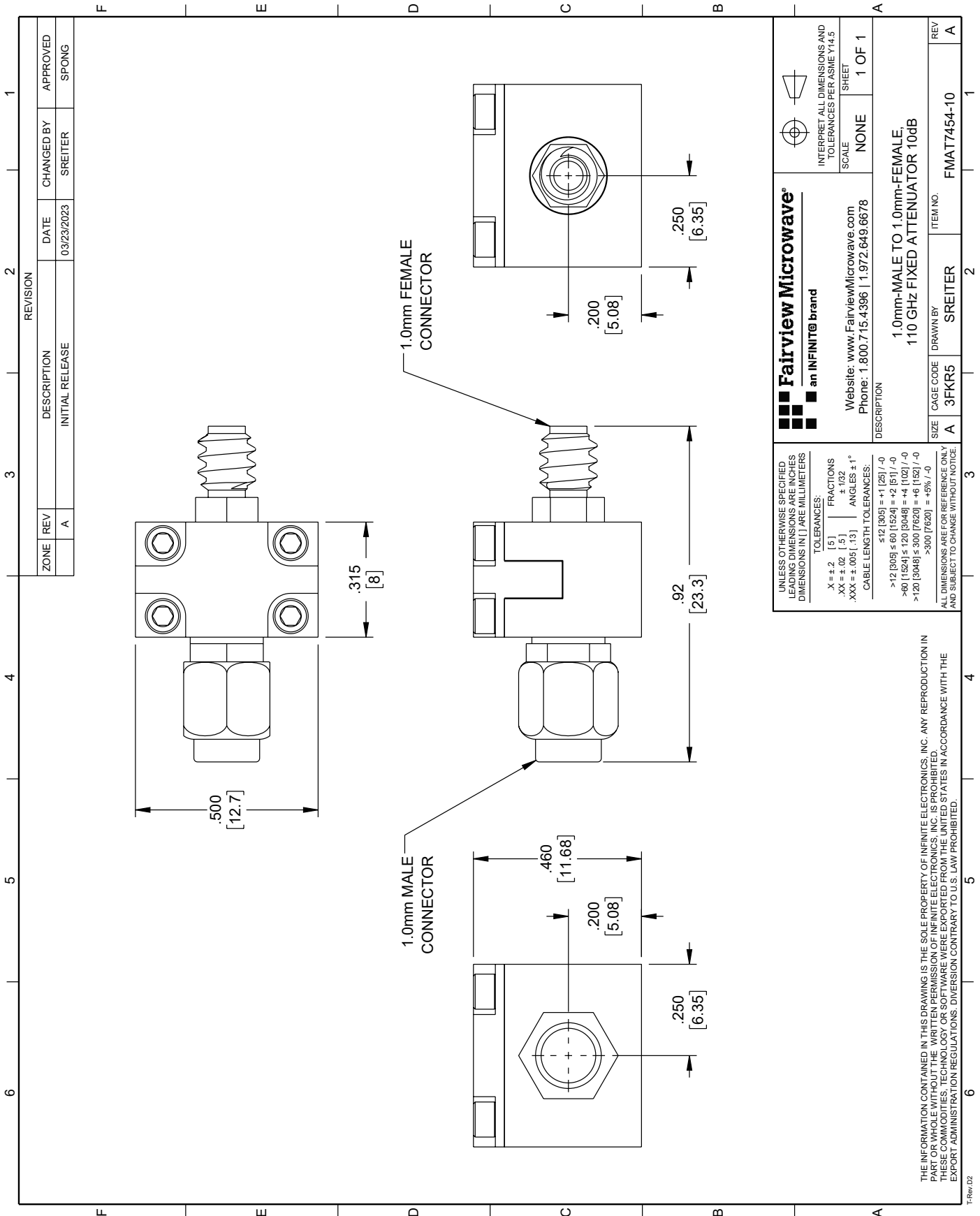
For additional information on this product, please click the following link: [10 dB Fixed Attenuator 1.0mm Male \(Plug\) to 1.0mm Female \(Jack\) Up to 110 GHz Rated to 0.5 Watts Passivated Stainless Steel Body 1.8:1 VSWR FMAT7454-10](#)

URL: <https://www.fairviewmicrowave.com/10db-fixed-attenuator-1.0mm-male-1.0mm-female-0.5-watts-fmat7454-10-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.

FMAT7454-10 CAD Drawing

10 dB Fixed Attenuator 1.0mm Male (Plug) to 1.0mm Female (Jack) Up to 110 GHz
 Rated to 0.5 Watts Passivated Stainless Steel Body 1.8:1 VSWR



ZONE		REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
		A	INITIAL RELEASE	03/23/2023	SREITER	SPONG

REVISION	
1	

Fairview Microwave
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 Phone: 1.800.715.4396 | 1.972.649.6678

UNLESS OTHERWISE SPECIFIED
 ALL DIMENSIONS ARE IN INCHES
 DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:
 .X = ±.2 [5] | FRACTIONS ± 1/32
 .XX = ±.02 [0.5] | ANGLES ± 1°
 .XXX = ±.005 [0.13] | CABLE LENGTH TOLERANCES:
 ≤ 12 [305] = ±.1 [25] / -0
 > 12 [305] ≤ 60 [1524] = +.2 [5] / -0
 > 60 [1524] ≤ 120 [3048] = +.4 [102] / -0
 > 120 [3048] ≤ 300 [7620] = +.8 [152] / -0
 > 300 [7620] = +.8% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY
 AND SUBJECT TO CHANGE WITHOUT NOTICE

DESCRIPTION: 1.0mm-MALE TO 1.0mm-FEMALE, 110 GHz FIXED ATTENUATOR 10dB

SCALE: NONE | SHEET: 1 OF 1

ITEM NO: FMAT7454-10

SIZE: A | CAGE CODE: 3FKR5 | DRAWN BY: SREITER

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