

10 dB Fixed Attenuator NEX10 Male (Plug) to NEX10 Female (Jack) Up to 6 GHz Rated to 10 Watts, Aluminum Body, 1.25:1 VSWR



## FMAT7491-10

### Features

- DC to 6 GHz Range
- NEX10 Connectorized Design
- Attenuation 10 ±1 dB
- Max Power 10 Watts (CW)
- VSWR 1.25:1

### Applications

- Instrumentation
- Precision Measurements
- Prototyping and Characterization
- Production Systems
- 5G Cellular Bands
- DAS 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 FMAT7491-10 is a 10 dB Fixed Attenuator that operates from DC to 6 GHz and is rated to 10 Watts. The versatile coaxial package uses NEX10 male to NEX10 female connectors.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
Impedance		50		Ohms
Nominal Attenuation		10		dB
Attenuation Accuracy		1		dB
VSWR			1.25:1	
Input Power, CW			10	Watts
Input Power, Peak			100	Watts
20µs pulse, 8% duty cycle				

### Mechanical Specifications

#### Size

Length	2.24409 in [57 mm]
Width/Diameter	0.7874 in [20 mm]
Height	0.7874 in [20 mm]
Weight	0.02 lbs [9.07 g]
Body Material and Plating	Aluminum

#### Configuration

Design	Fixed, Bidirectional
Design Type	Standard
Package Style	Connectorized

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### Connectors

Description	Connector 1	Connector 2
Type	NEX10 Male	NEX10 Female
Contact Material and Plating	Beryllium Copper, Silver	Beryllium Copper, Silver
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal

### Environmental Specifications

#### Temperature

Operating Range	-40 to +75 deg C
Storage Range	+85 to -50 deg C
Humidity	<95%
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6-Fc
Altitude	<5000m
Thermal Shock	IEC 60068-2-14-Na

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

### Plotted and Other Data

Notes:

### Typical Performance Data

10 dB Fixed Attenuator NEX10 Male (Plug) to NEX10 Female (Jack) Up to 6 GHz Rated to 10 Watts, Aluminum Body, 1.25:1 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.

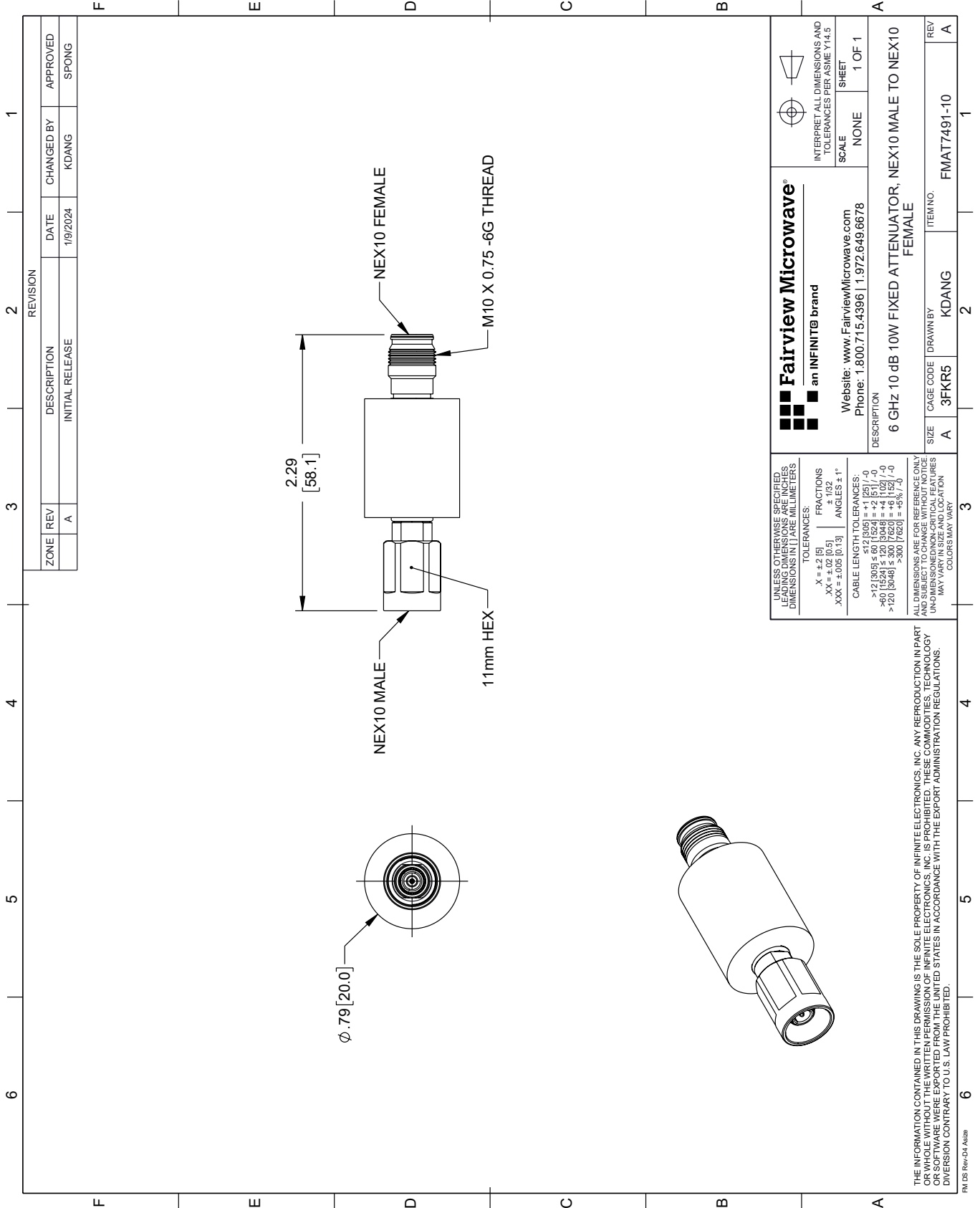
For additional information on this product, please click the following link: [10 dB Fixed Attenuator NEX10 Male \(Plug\) to NEX10 Female \(Jack\) Up to 6 GHz Rated to 10 Watts, Aluminum Body, 1.25:1 VSWR FMAT7491-10](#)

URL: <https://www.fairviewmicrowave.com/10db-fixed-attenuator-nex10-male-nex10-female-10-watts-fmat7491-10-p.aspx>

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# FMAT7491-10 CAD Drawing

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REVISION			
ZONE	REV	DESCRIPTION	DATE
	A	INITIAL RELEASE	1/9/2024

CHANGED BY		APPROVED	
DATE	DESCRIPTION	DATE	DESCRIPTION
1/9/2024	KDANG		SPONG

**Fairview Microwave**  
an INFINIT® brand

Website: [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com)  
Phone: 1.800.715.4396 | 1.972.649.6678

SCALE: NONE  
SHEET: 1 OF 1

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

DESCRIPTION: 6 GHz 10 dB 10W FIXED ATTENUATOR, NEX10 MALE TO NEX10 FEMALE

SIZE: A  
CAGE CODE: 3FKR5  
DRAWN BY: KDANG  
ITEM NO.: FMAT7491-10

REV: A

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND 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] ≤ 60 [1524] = ±.1 [25] / -0  
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0  
 >120 [3048] ≤ 300 [7620] = ±.8 [20] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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PM 06 Rev-D4 Alt2b