

10dB DC Bias Attenuator 50 Ohm SMA Male (Plug) to 50 Ohm SMA Female (Jack) Up to 3GHz Rated to 2 Watts Brass Tri-Metal Body, 1.35:1 VSWR



## FMAT7447-10

### Features

- 0.1GHz to 3GHz Frequency Range
- Input Power 2 Watts (CW)
- 50ohm impedance
- Attenuation 10±2.5dB
- DC Bias Current 100mA Max
- VSWR < 1.35:1

### Applications

- Instrumentation
- Prototyping and characterization
- RF test systems
- Radar 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 FMAT7447-10 is a 10 dB DC passing Fixed Attenuator that operates from 100 MHz to 3 GHz and is rated to 2 Watts and 0.1A DC current. FMAT7447-10 would only attenuate RF signal without reducing the DC current passing through the part. The versatile coaxial package uses SMA male to SMA female connectors.

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	0.1		3	GHz
Impedance		50		Ohms
Attenuation Value		10		dB
Attenuation Accuracy		±2.5		dB
Input Power (CW)			2	Watts
VSWR			1.35:1	
Maximum DC Bias Voltage			100	Volts
Maximum DC Bias Current			0.1	A

### Mechanical Specifications

#### Size

Length, in [mm]	1.22 [30.99]
Width, in [mm]	0.315 [8]
Height, in [mm]	0.315 [8]
Weight, lbs [g]	0.015 [6.8]

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### Configuration:

Design	DC Bias
Body Material and Plating	Brass, Tri-Metal

### Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Female
Impedance	50 Ohms	
Contact Material & Plating	Beryllium Copper, Gold	
Outer Cond Material & Plating	Beryllium Copper, Gold	

### Plotted and Other Data

Notes:  
Values at 25 °C, sea level

### Typical Performance Data

10dB DC Bias Attenuator 50 Ohm SMA Male (Plug) to 50 Ohm SMA Female (Jack) Up to 3GHz Rated to 2 Watts Brass Tri-Metal Body, 1.35:1 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 DC Bias Attenuator, SMA male to SMA female brass body rated to 2 watts FMAT7447-10](#)

URL: <https://www.fairviewmicrowave.com/10db-dc-bias-attenuator-sma-male-sma-female-2-watts-fmat7447-10-p.aspx>

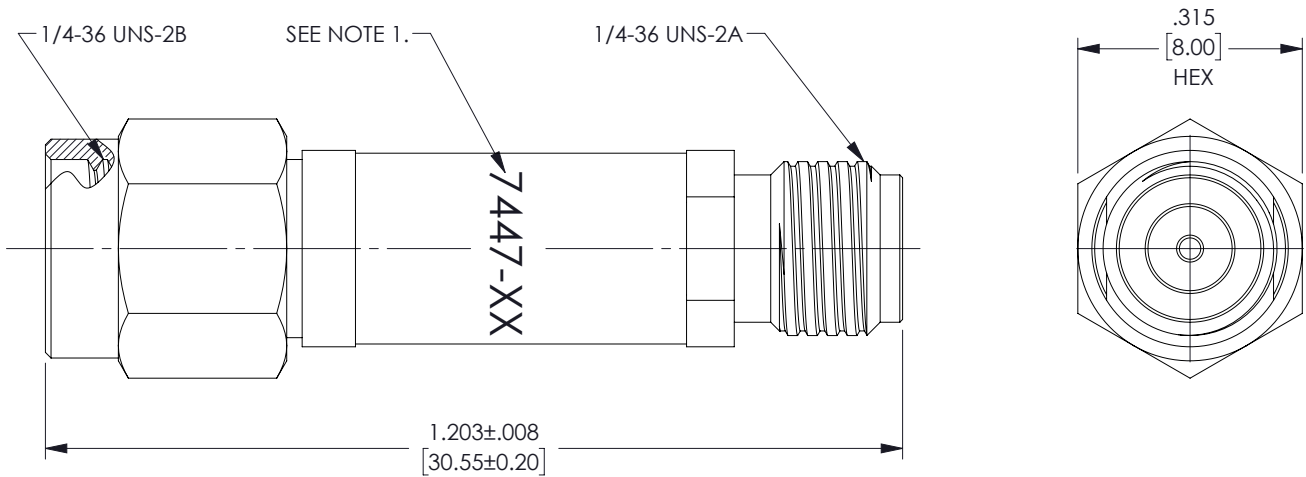
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# FMAT7447-10 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	08/08/2022	SPONG



**NOTES:**

- ITEM IS MARKED WITH ITEM NUMBER WHERE SHOWN.  
"-XX" DENOTES THE ATTENUATION VALUE,  
EXAMPLE: 7447-3 = 3dB, 7447-10 = 10dB, ETC.

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TITLE

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

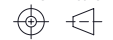
**TOLERANCES:**

.X = ±.2 [ .51]    FRACTIONS ± 1/32  
.XX = ±.02 [ .51]    ANGLES ± 1°  
.XXX = ±.005 [ .13]

**CABLE LENGTH (L) TOLERANCES:**

L ≤ 12 [305] = +1 [25] / -0  
12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
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

SCALE N/A

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE A	CAGE CODE 3FKR5	DRAWN BY AKRESOWSK	ITEM NO. FMAT7447	REV A
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