

0 to 70 dB Step Attenuator With a 10 dB Step SMA Female Connectors Rated Up To 2.2 GHz and Up to 2 Watts in a Rotary Design



FMAT1023

Features

- 10 dB steps from 0 to 70 dB Attenuation
- Rotary Dial Control
- ± 0.5 dB or 3% Attenuation Accuracy
- SMA Female Connectors
- -20°C to $+80^{\circ}\text{C}$ Operating Temperature

Applications

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

Description

The FMAT1023 is a Step Attenuator that has 70 dB of total attenuation with 10 dB step size and rotary dial design across a frequency range from DC to 2.2 GHz. The design is tried and true technology that offers exceptional performance characteristics that include 0.5 dB maximum insertion loss, and a maximum VSWR of 1.4:1 at 2.2 GHz. The design also features excellent attenuation accuracy with ± 0.4 dB typical at 2.2 GHz. The Chem film Aluminum alloy package has SMA Female connectors, and operates within the temperature range of -20°C to 80°C .

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		2.2	GHz
Impedance		50		Ohms
Insertion Loss			0.5	dB
Attenuation Value		0 to 70		dB
Step Size		10		dB
Step Type		Rotary		
Accuracy Statement		± 0.5 dB or 3% (Which-ever is greater)		
Input Power (CW)			2	Watts
Input Power, Peak			1	kWatts

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Range	DC to 1	1 to 2.2				GHz
Insertion Loss	0.3	0.5				dB
VSWR	1.2:1	1.4:1				

Mechanical Specifications

Size

Length	2.67 in [67.82 mm]
Width	1.5 in [38.1 mm]
Height	0 in [0 mm]
Weight	0.5285 lbs [239.72 g]
Body Material and Plating	Aluminum, Chem Film

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Connectors

Description	Connector 1	Connector 2
Type	SMA Female	SMA Female

Environmental Specifications

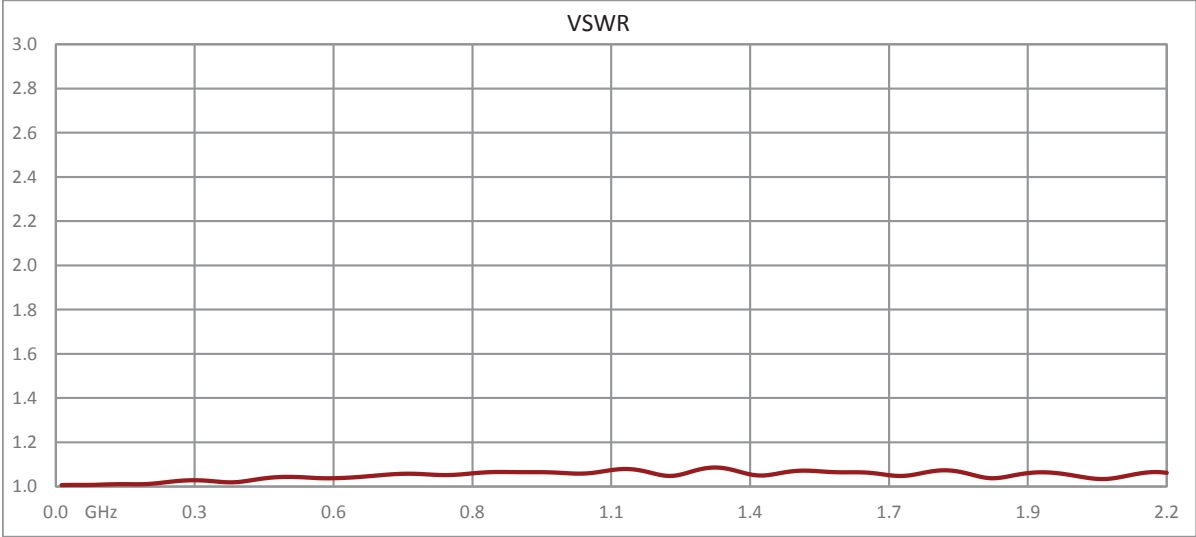
Temperature	
Operating Range	-20 to 85 deg C

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

Plotted and Other Data

Notes:

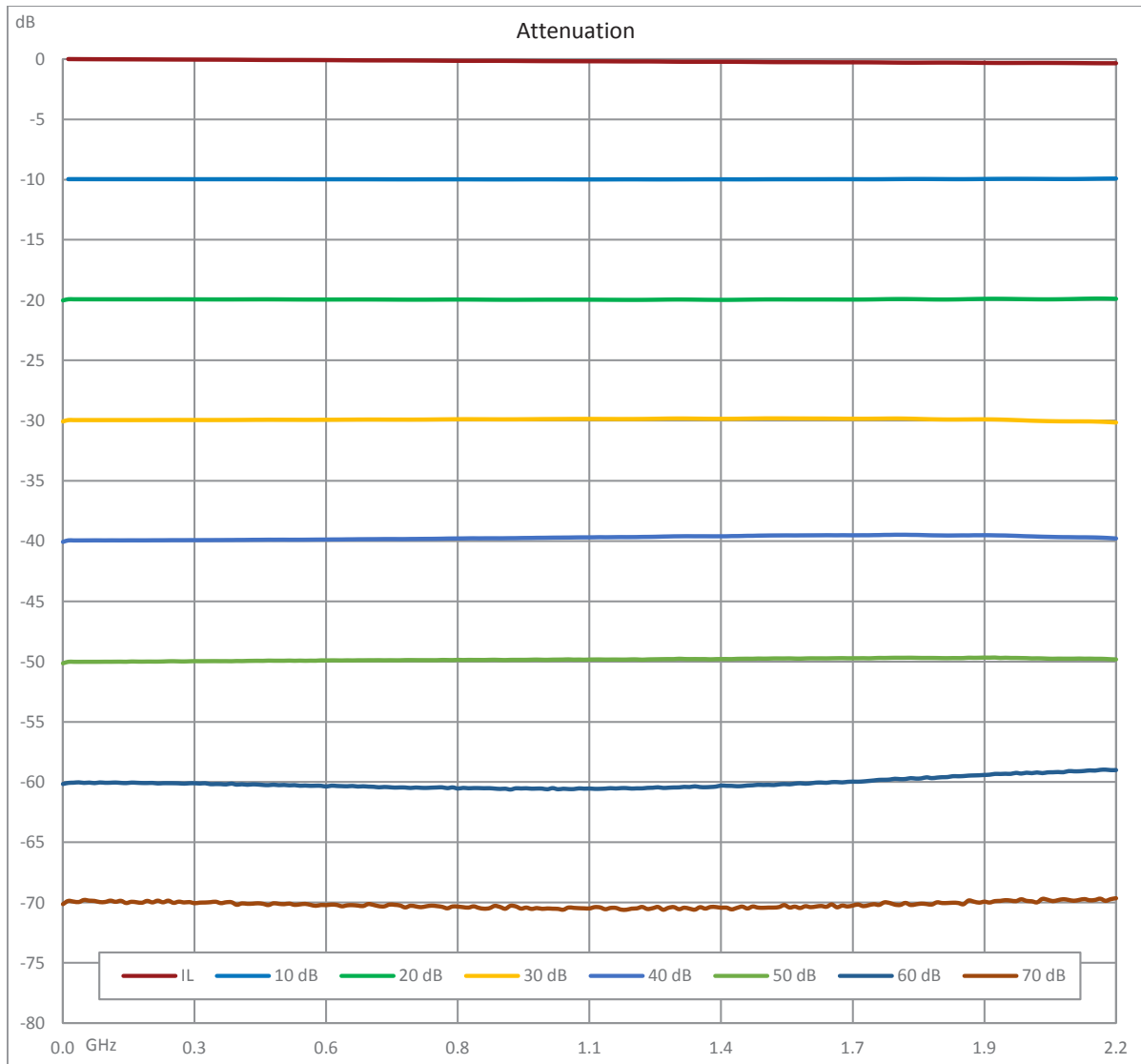
Typical Performance Data



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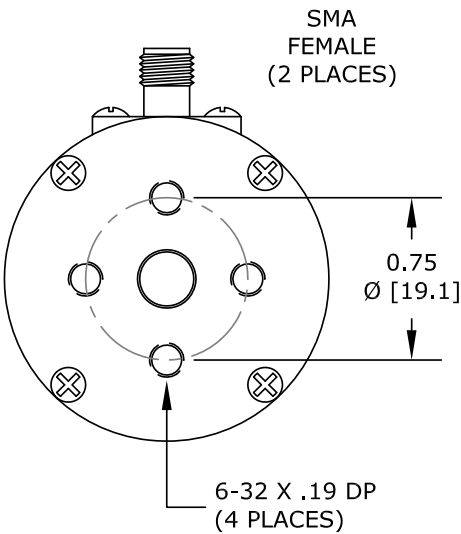
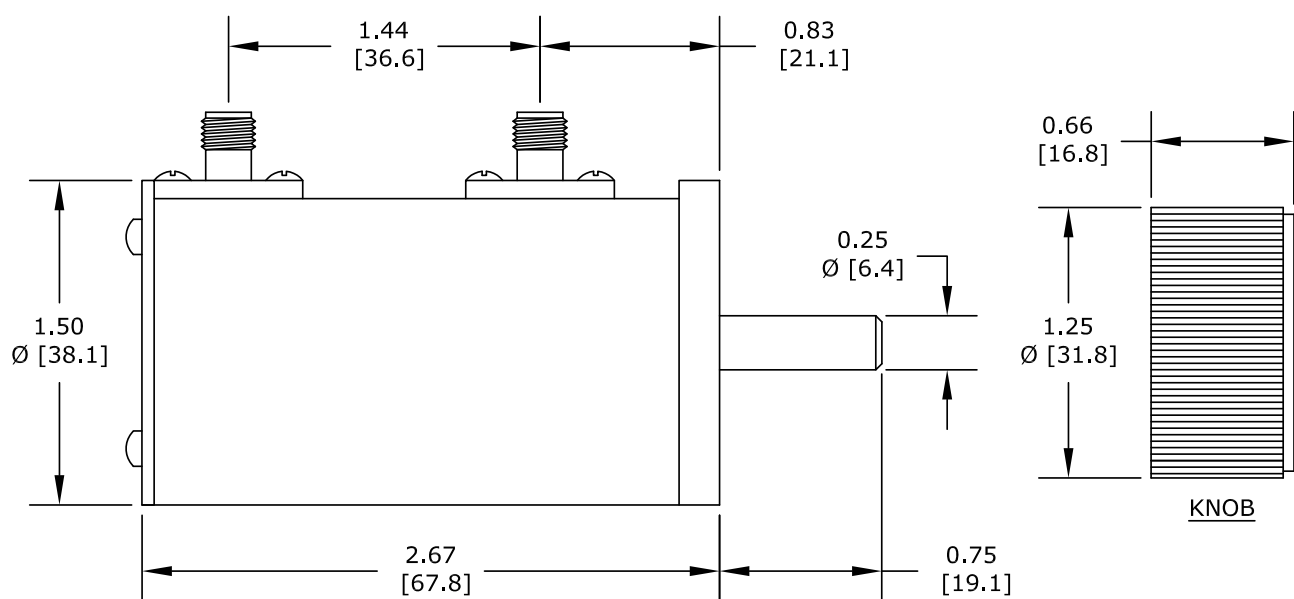
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For additional information on this product, please click the following link: [0 to 70 dB Step Attenuator With a 10 dB Step SMA Female Connectors Rated Up To 2.2 GHz and Up to 2 Watts in a Rotary Design FMAT1023](https://www.fairviewmicrowave.com/70db-step-attenuator-10db-sma-female-dc-2.2-ghz-2-watts-fmat1023-p.aspx)

URL: <https://www.fairviewmicrowave.com/70db-step-attenuator-10db-sma-female-dc-2.2-ghz-2-watts-fmat1023-p.aspx>

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FMAT1023 CAD Drawing
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STANDARD TOLERANCES
DECIMAL
±0.02

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES

FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].			
TITLE	DWG NO		CAGE CODE		
	FMAT1023		3FKR5		
	CAD FILE	021417	SHEET	SCALE	N/A
				SIZE	A
					2233