

Voltage Variable PIN Diode Attenuator from 0 to 20 dB 50 MHz to 2.2 GHz Rated to 10 dBm and SMA Solder Pin Control



FMAT1031

Features

- Voltage Variable control of 20 dB Attenuator
- 50 MHz to 2200 MHz frequency range
- 20 dB Attenuation Range
- Insertion Loss 3 dB Typ
- SMA Female Connectors

Applications

- Electronic Warfare
- Electronic Countermeasures
- Microwave Radio
- VSAT
- Radar
- Fiber Optic
- Space Systems
- Test Instrumentation
- Telecom Infrastructure

Description

The FMAT1031 is a 20 dB Pin Diode Voltage Variable Attenuator with an operating frequency range from 50 MHz to 2200 MHz. The RF Input/ Output Connectors are SMA Female. The attenuator uses a 5 Vdc supply and the voltage control that is used to select the attenuation state and a single 0 to +10 VDC bias that allows the operation at frequencies down to DC. The connectorized package has SMA connectors and has an operating temperature range of -20°C to +75°C.

Electrical Specifications (Values at +25°C, sea level)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.05		2.2	GHz
Attenuation Range	0		20	dB
			3	dB
VSWR			1.7:1	
RF Input Power			10	dBm
Switching Speed			50	us
Control Voltage	0		10	Volts
DC Power Supply to 5 VDC			2	mA
Attenuation Range	0		20	dB

Mechanical Specifications

Size

Length	9.3 in [236.22 mm]
Width	6.4 in [162.56 mm]
Height	1.2 in [30.48 mm]
Weight	0.2955 lbs [134.04 g]
Input Connector	SMA Female
Output Connector	SMA Female
Power and Control	Solder Pin

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Environmental Specifications

Temperature

Operating Range	-20 to +75 deg C
Storage Range	-40 to +85 deg C

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

Plotted and Other Data

Notes:

- Values at +25 °C, sea level
ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

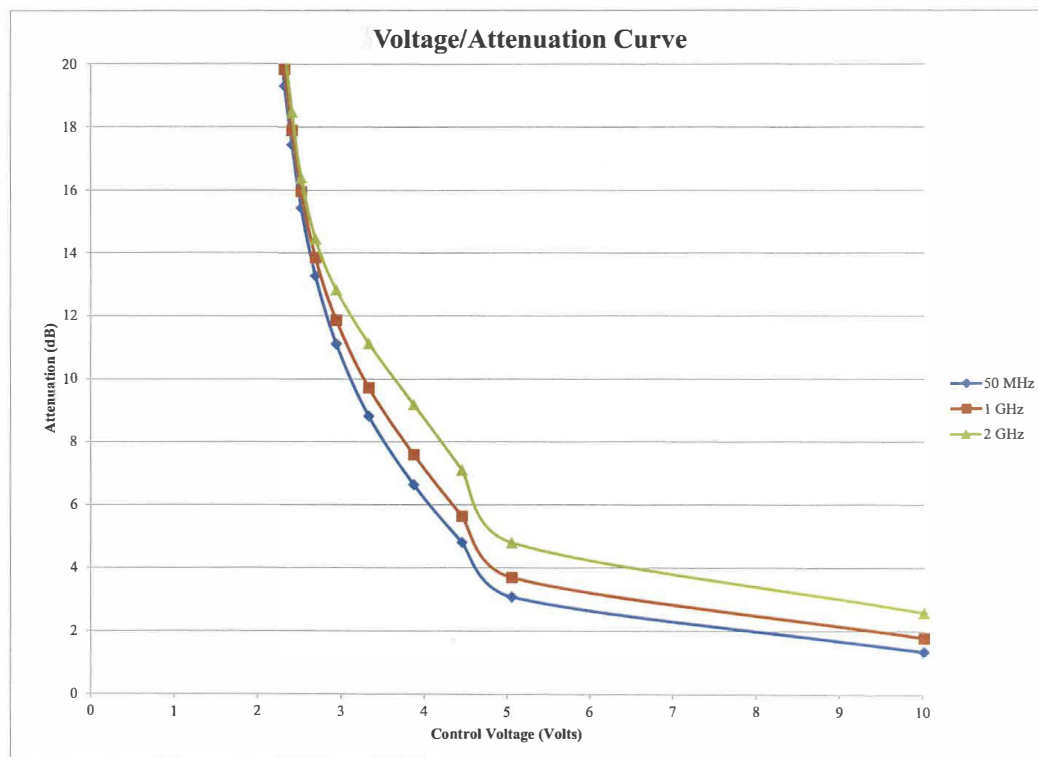
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Functional Block Diagram

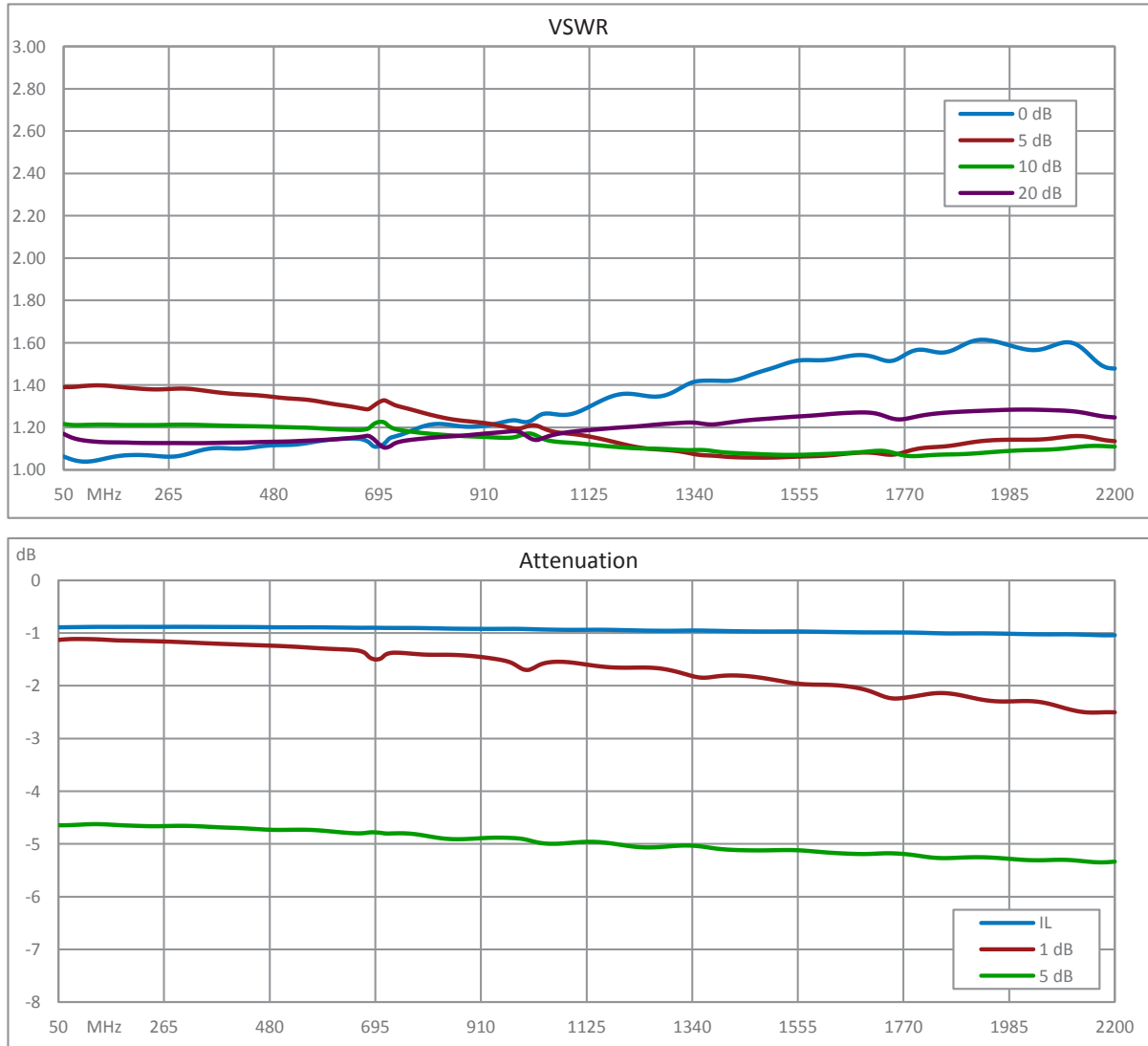
Performance Data



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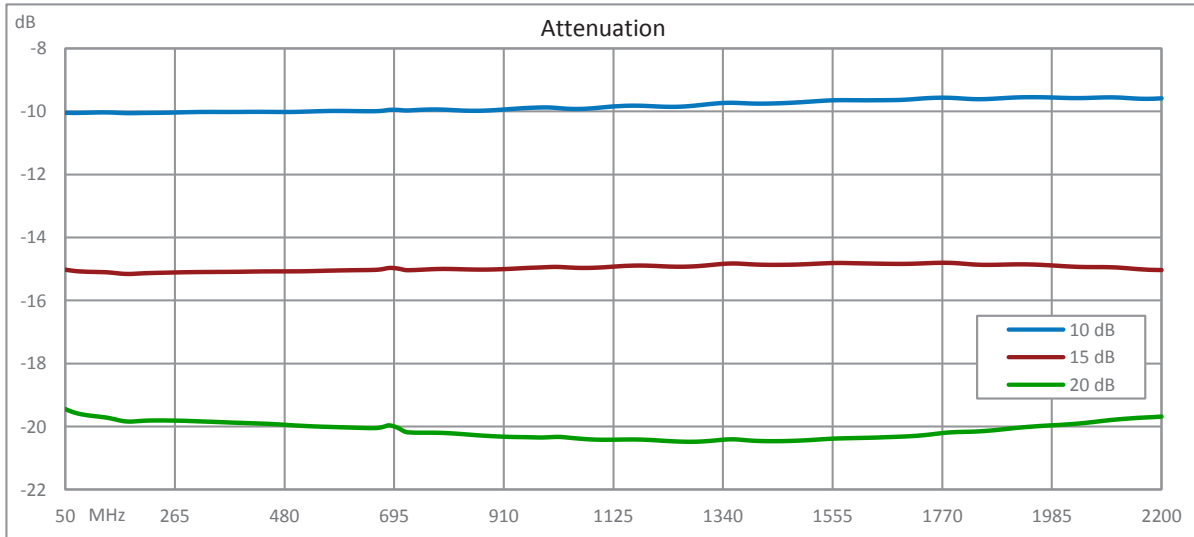
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Voltage Variable PIN Diode Attenuator from 0 to 20 dB 50 MHz to 2.2 GHz Rated to 10 dBm and SMA Solder Pin Control from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

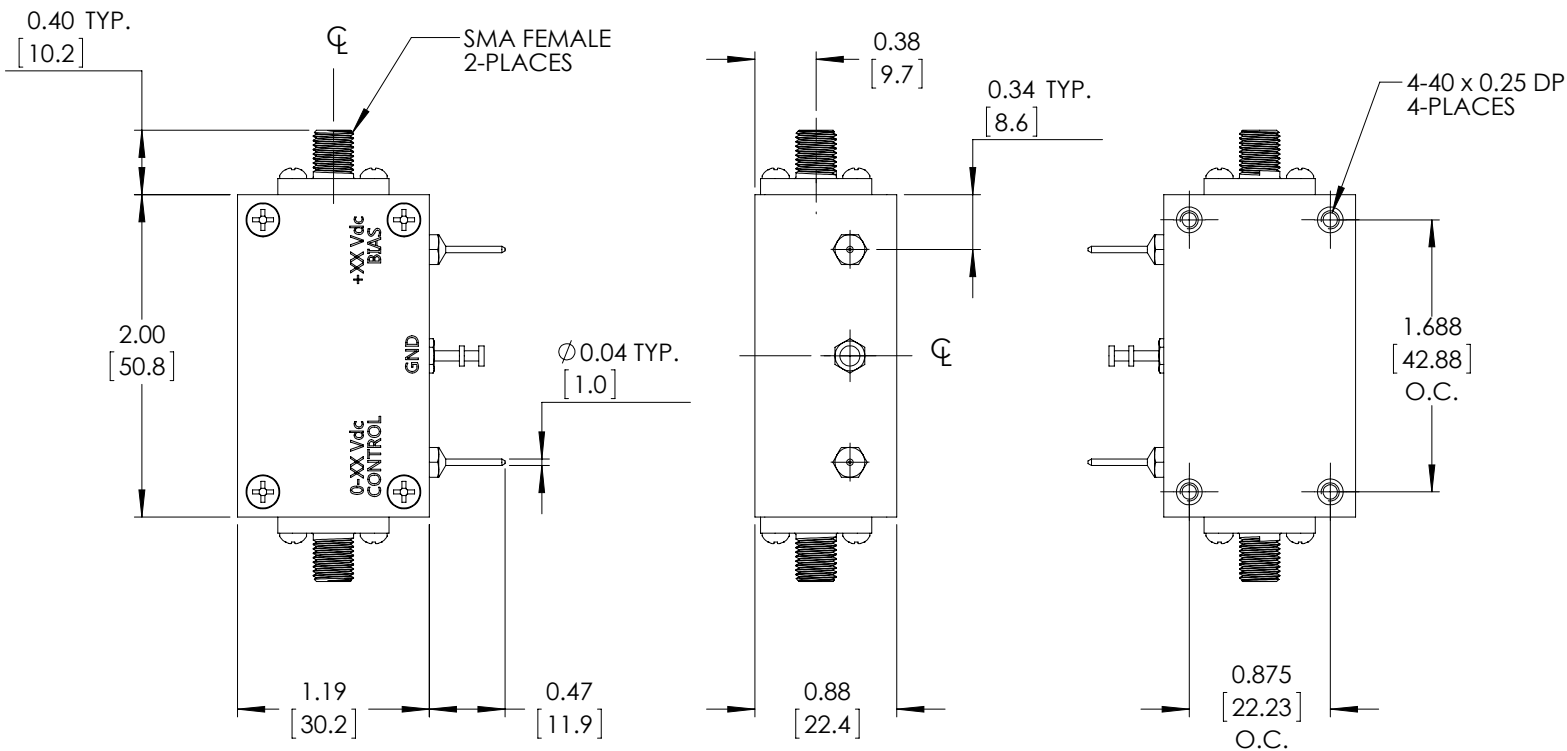
For additional information on this product, please click the following link: [Voltage Variable PIN Diode Attenuator from 0 to 20 dB 50 MHz to 2.2 GHz Rated to 10 dBm and SMA Solder Pin Control FMAT1031](https://www.fairviewmicrowave.com/20db-voltage-variable-10-dbm-attenuator-pin-diode-2.2-ghz-fmat1031-p.aspx)

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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.

FMAT1031 CAD Drawing

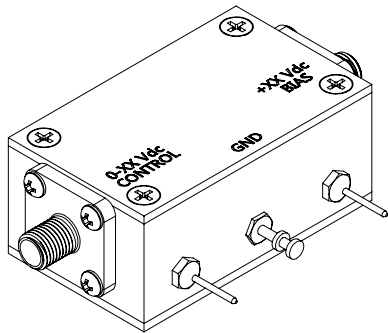
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STANDARD TOLERANCES

.XX ±0.01
.XXX ±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



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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		FMAT1031		CAGE CODE		3FKR5	
	CAD FILE	061917	SHEET	1 OF 1	SCALE	N/A	SIZE	A
								CN_0992