

0 to 63 dB 6 Bit Programmable Relay Controlled Step Attenuator With a 1 dB Step F Female Rated To 1 Watt Up To 1,000 MHz

The FMAT8003 is a 6 Bit Relay Programmable Attenuator which operates over the frequency range of DC to 1000 MHz. The 75 ohm design has an attenuation range that covers 0 to 63 dB in 1 dB steps. Attenuation steps are 1, 2, 4, 8, 16, and 32 dB. Insertion loss is 2.2 dB maximum with a maximum RF input power 1 Watt average. Additional typical performance includes +/- 0.3 dB attenuation accuracy and switching speed of 6 milliseconds. The DC supply is +12 Vdc @ 30 mA per relay (6 relay solder terminals, 1 GND solder terminal). The compact and rugged package design supports F female RF input/output connectors and DC connector solder terminals. Operational temperature is -20°C to +85°C.



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

Description	Min	Typ	Max	Unit
Frequency Range	DC		1,000	MHz
Mean Attenuation Range	0		63	dB
Insertion Loss			2.2	dB
Input VSWR			1.4:1	
Power Rating			+30	dBm
Accuracy of Attenuation or 1.5% whichever is greater			±0.3	dB
Step Size	1			dB
Switching Time			6	ms
DC Power Supply 30 mA		12		Volts

Electrical Specification Notes:
 1, 2, 4, 8, 16, and 32 dB bit Steps

Mechanical Specifications
Size

Weight 0.43 lbs [195.04 g]
 Connector 1 F Female
 Connector 2 F Female

Environmental Specifications
Temperature

Operating Range -20 to +85 deg C

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

Plotted and Other Data

Notes:

Features:

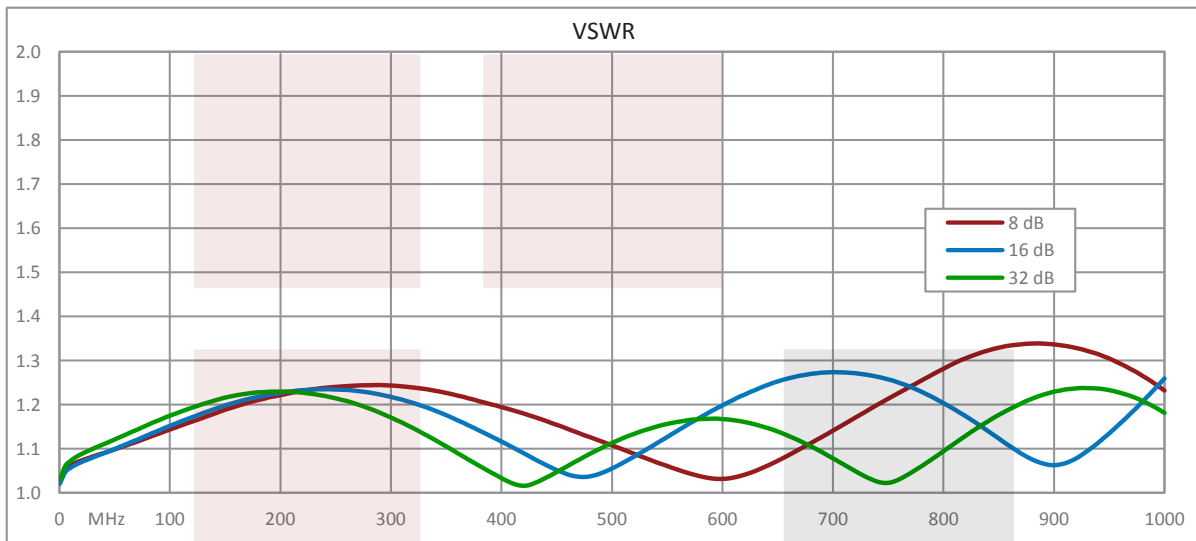
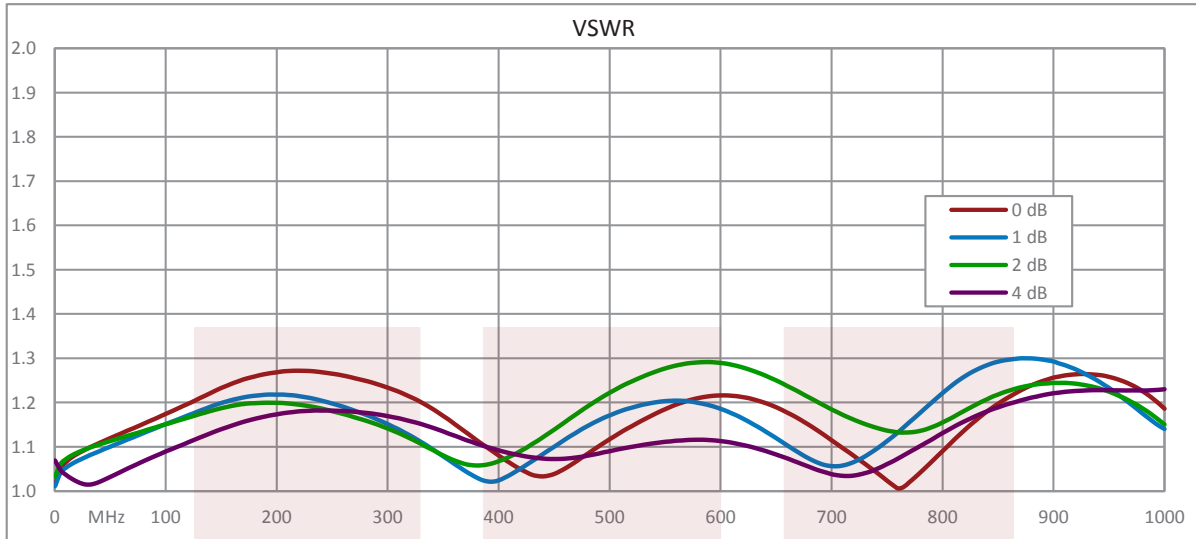
- 6 Bit Relay Programmable Attenuator
- DC to 1000 MHz Frequency Range
- 0-63 dB Attenuation Range
- Step Resolution of 1 dB
- Insertion Loss 2.2 dB max
- F Female
- 7 Solder Terminals
- CMOS control

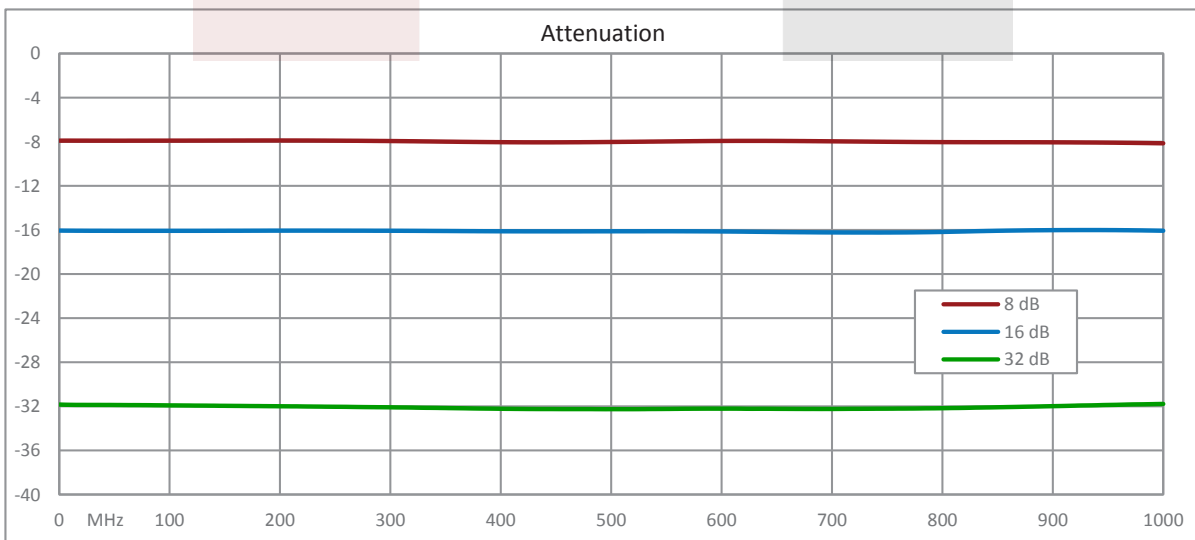
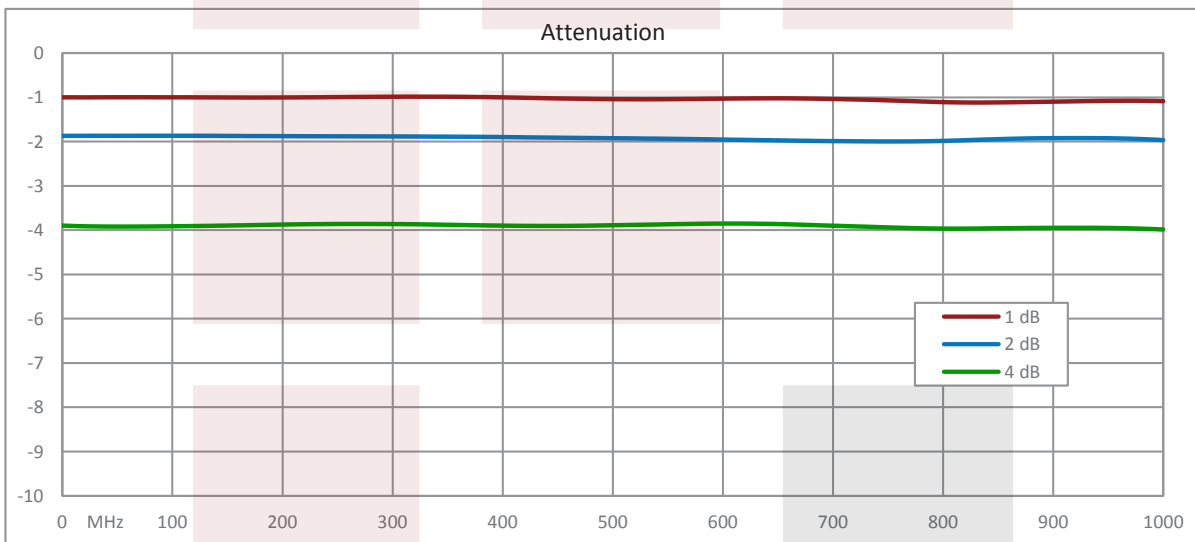
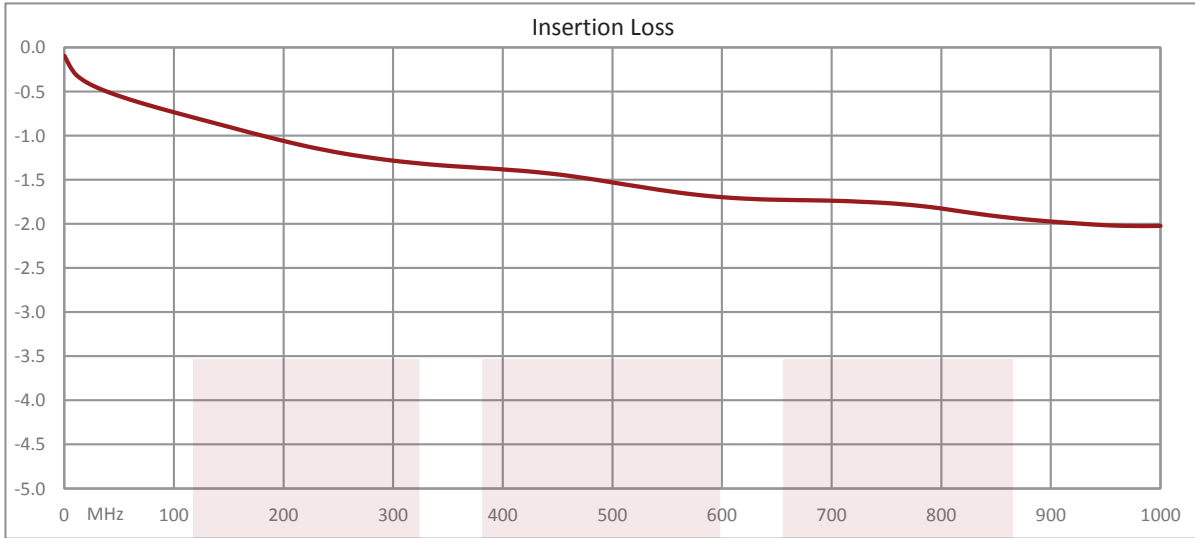
Applications:

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

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Typical Performance Data



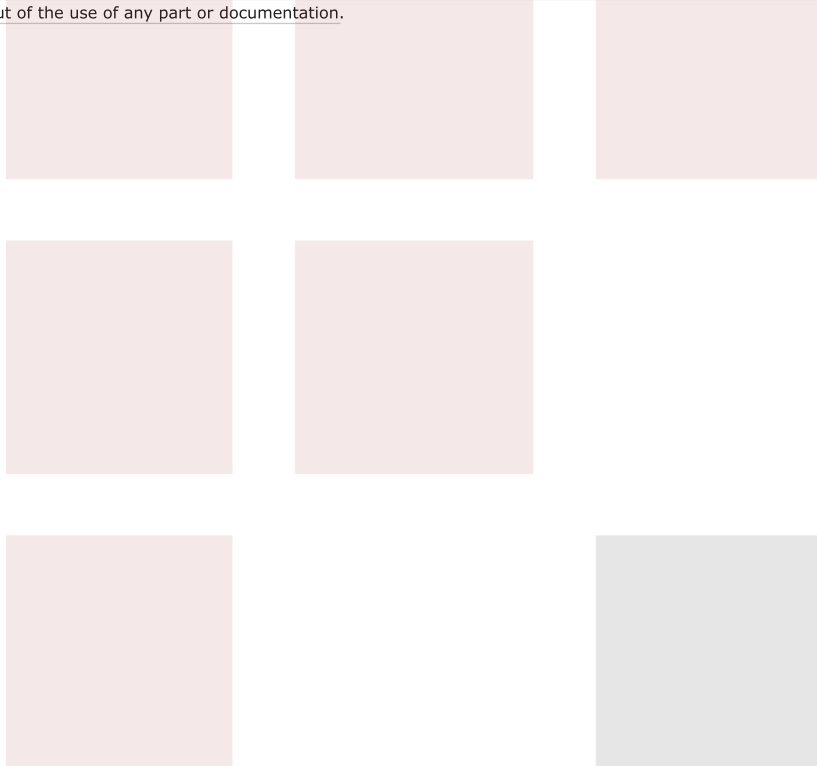


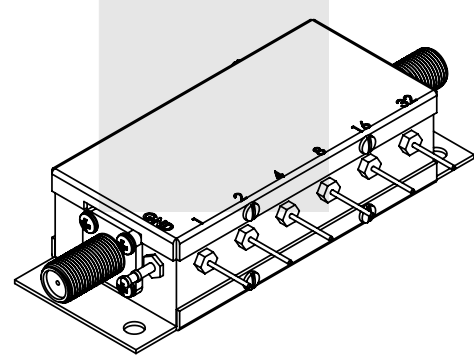
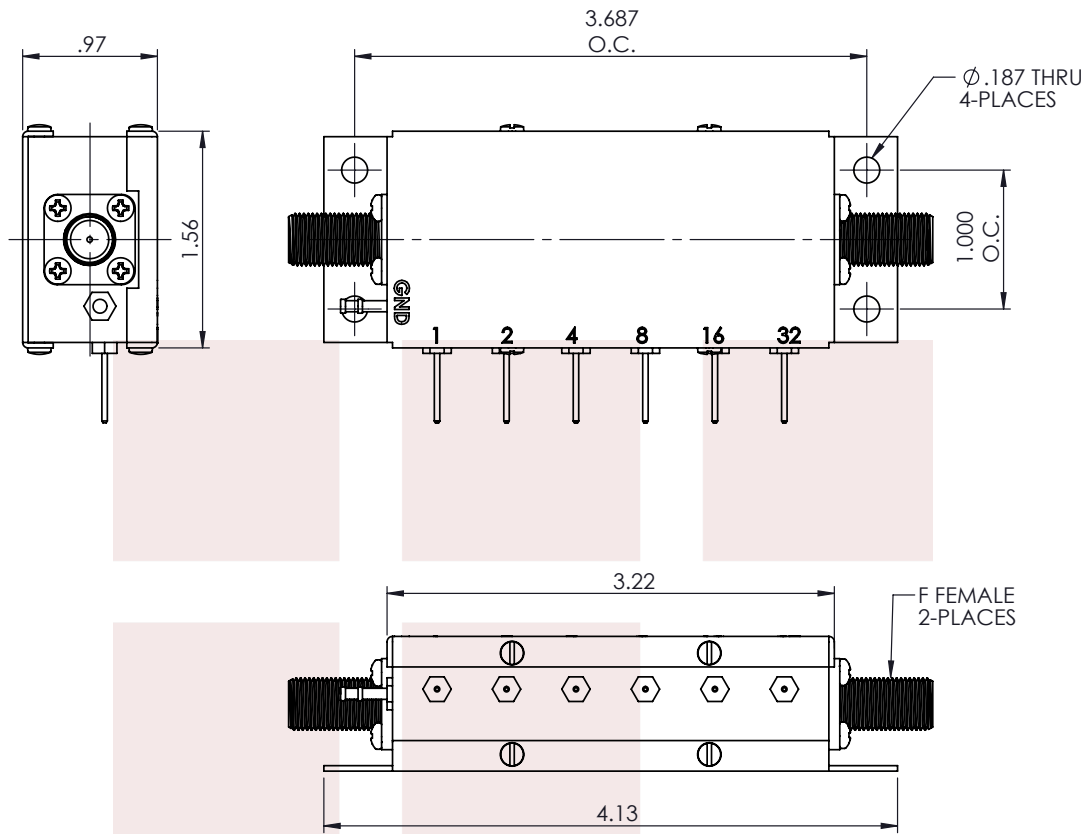
0 to 63 dB 6 Bit Programmable Relay Controlled Step Attenuator With a 1 dB Step F Female Rated To 1 Watt Up To 1,000 MHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [0 to 63 dB 6 Bit Programmable Relay Controlled Step Attenuator With a 1 dB Step F Female Rated To 1 Watt Up To 1,000 MHz FMAT8003](#)

URL: <https://www.fairviewmicrowave.com/63-db-relay-controlled-step-attenuator-f-female-fmat8003-p.aspx>

The information contained in 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 any liability arising out of the use of any part or documentation.





STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

*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 0 to 63 dB 6 Bit Programmable Relay Controlled Step Attenuator With a 1 dB Step F Female Rated To 1 Watt Up To 1,000 MHz	DWG NO	FMAT8003		CAGE CODE 3FKR5
	CAD FILE	061317	SHEET	SCALE N/A SIZE A 0157