

0 to 63.75 dB 8 Bit Programmable Relay Controlled Step Attenuator With a 0.25 dB Step SMA Female Rated To 0.5 Watts Up To 2 GHz

The FMAT8002 is a 8 Bit Relay Programmable Attenuator which operates over the frequency range of DC to 2000 MHz. The 50 ohm design has an attenuation range that covers 0 to 63.75 dB in 0.25 dB steps. Attenuation steps are 0.25, 0.5, 1, 2, 4, 8, 16, 32, and 64 dB. Insertion loss is 3.5 dB maximum with a maximum RF input power 0.5 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 (8 relay solder terminals, 1 GND solder terminal). The compact and rugged package design supports SMA 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		2	GHz
Mean Attenuation Range	0		63.75	dB
Power Rating			+27	dBm
Accuracy of Attenuation				dB
0.25 dB to 0.5 dB		±0.15		dB
1 dB to 8 dB		±0.3		dB
16 dB to 63.75 dB is ±3%				
Step Size	0.25			dB
Switching Time			6	ms
DC Power Supply 30 mA		12		Volts

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Freq. Range	DC-1	1-2				GHz
Insertion Loss, Max	3	3.5				dB
VSWR, Max	1.4	1.5				

Electrical Specification Notes:
 0.25, 0.5, 1, 2, 4, 8, 16, and 32 dB bit Steps

Mechanical Specifications

Size

Weight 0.5835 lbs [264.67 g]
 Connector 1 SMA Female
 Connector 2 SMA Female

Features:

- 8 Bit Relay Programmable Attenuator
- DC to 2000 MHz Frequency Range
- 0-63.75 dB Attenuation Range
- Step Resolution of 0.25 dB
- Insertion Loss 3.5 dB max
- SMA Female
- 9 Solder Terminals
- CMOS control

Applications:

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

Fairview Microwave
 1130 Junction Dr. #100
 Allen, TX 75013
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Environmental Specifications

Temperature

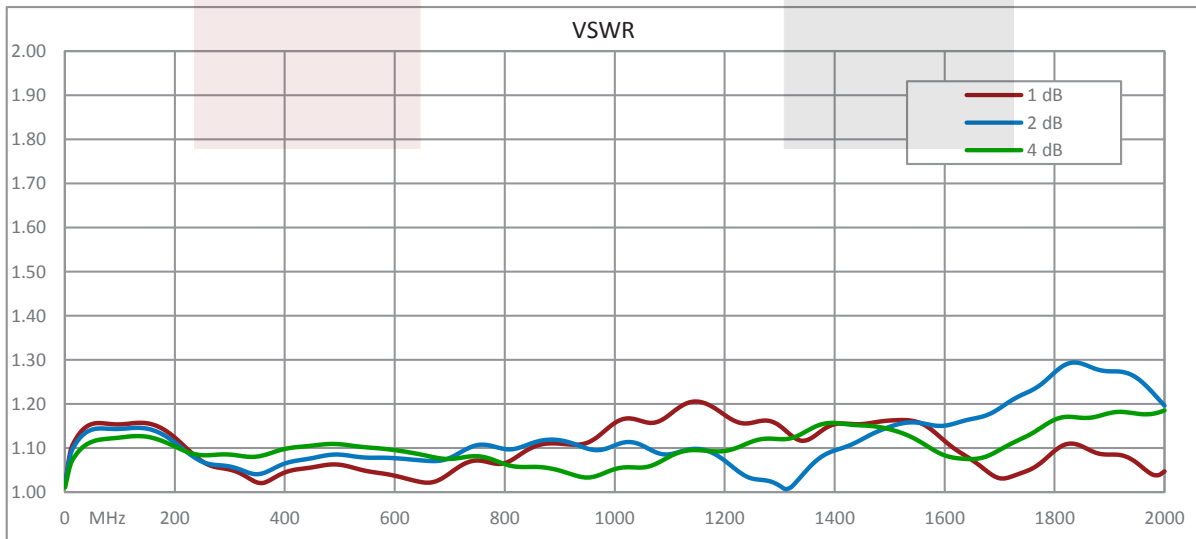
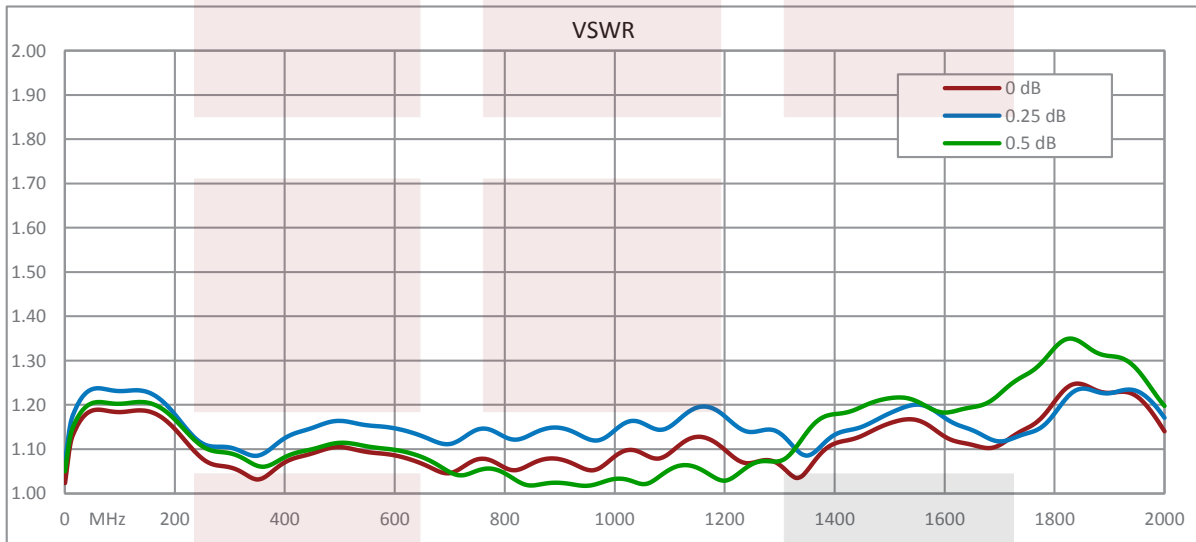
Operating Range -20 to +85 deg C

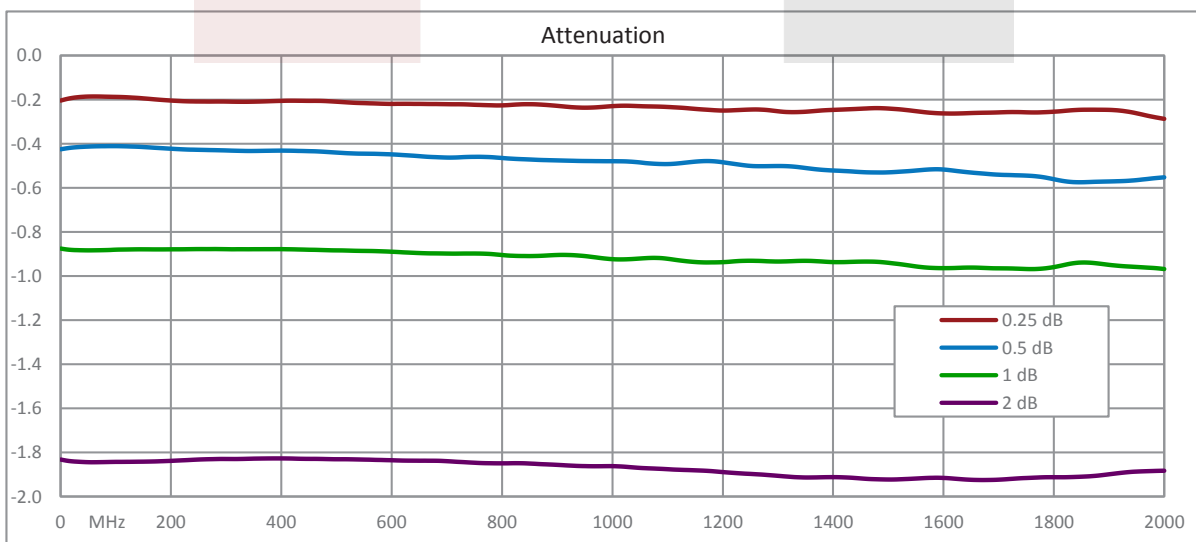
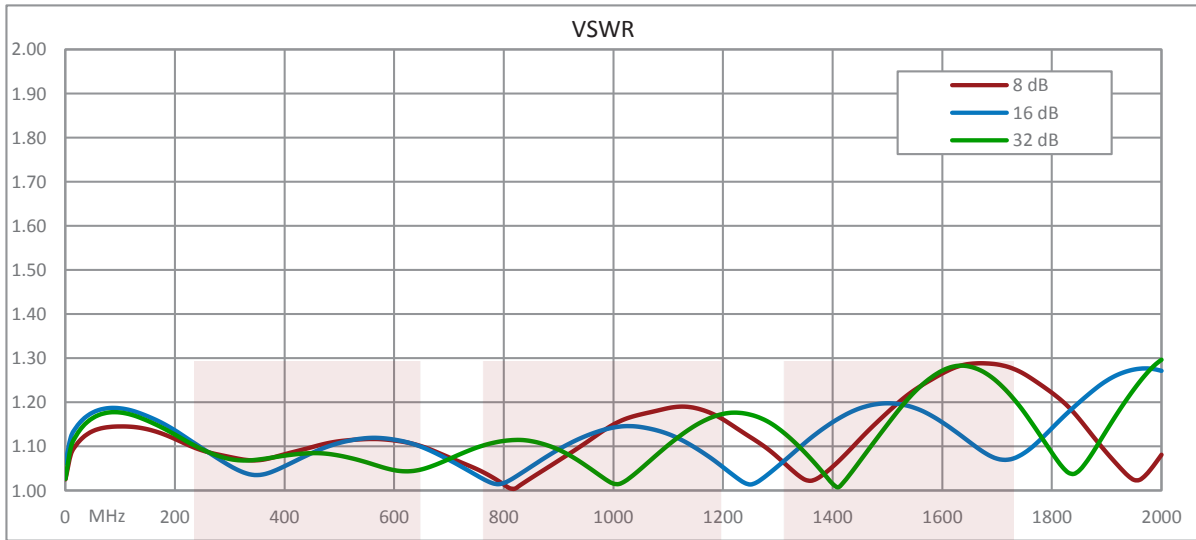
Compliance Certifications (see [product page](#) for current document)

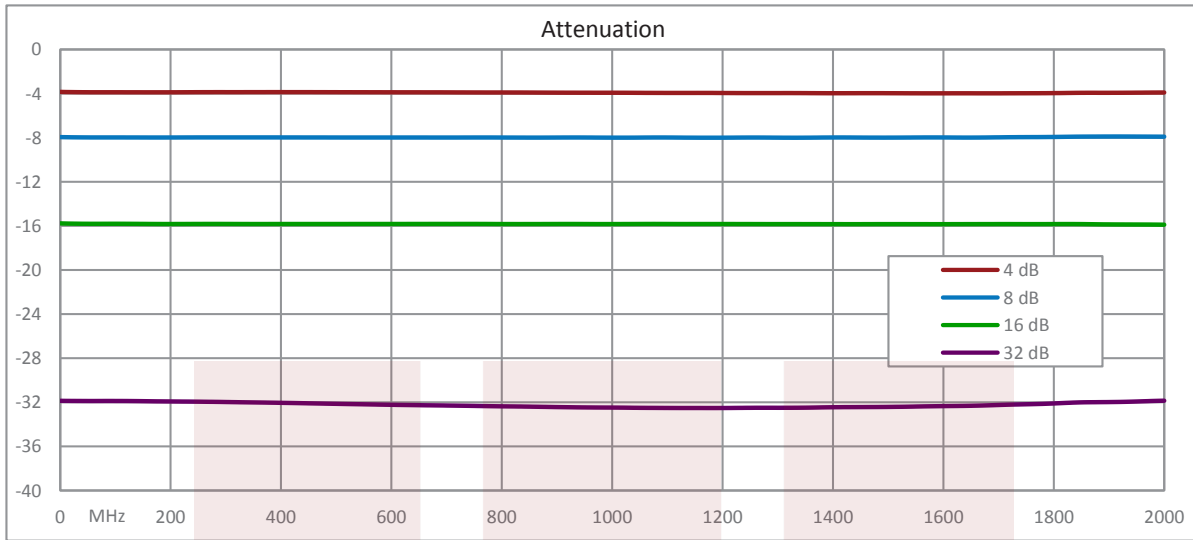
Plotted and Other Data

Notes:

Typical Performance Data





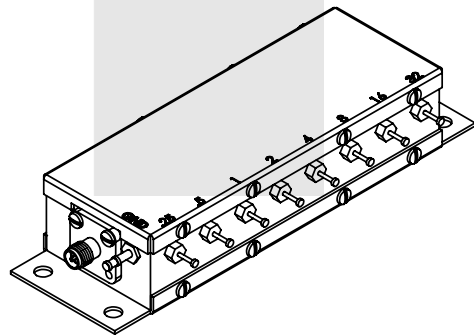
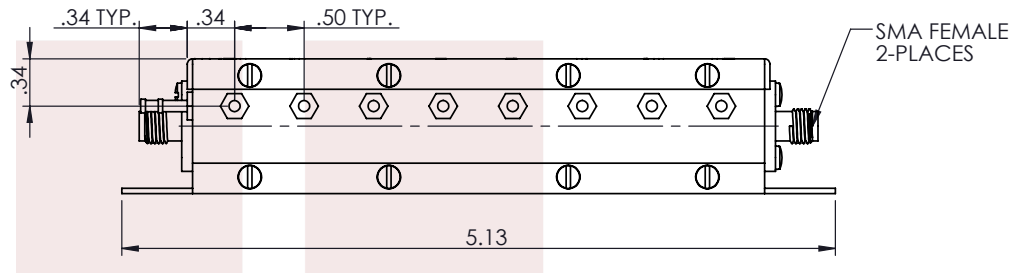
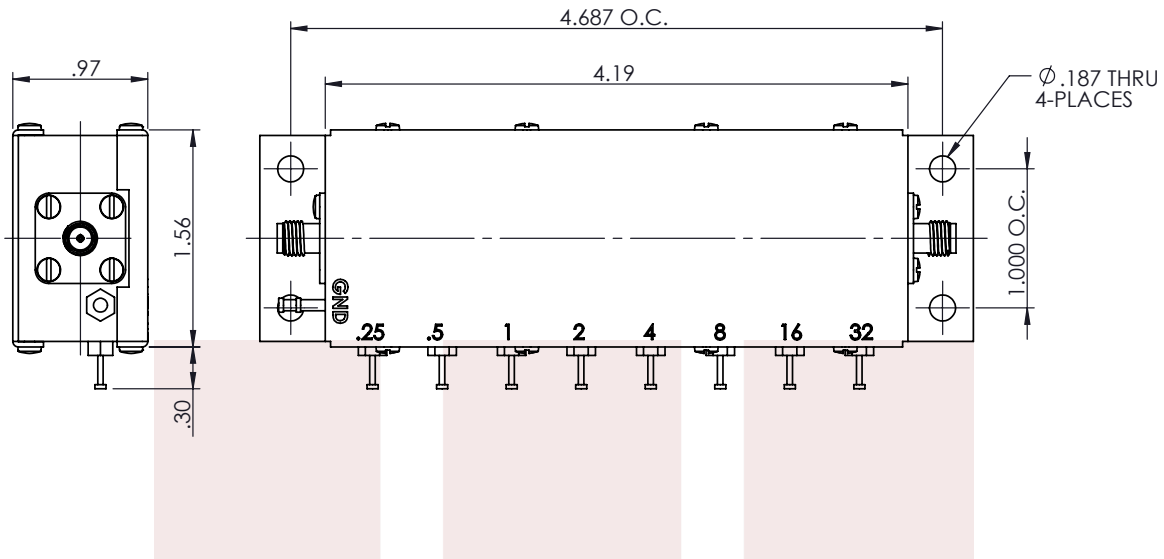


0 to 63.75 dB 8 Bit Programmable Relay Controlled Step Attenuator With a 0.25 dB Step SMA Female Rated To 0.5 Watts Up To 2 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [0 to 63.75 dB 8 Bit Programmable Relay Controlled Step Attenuator With a 0.25 dB Step SMA Female Rated To 0.5 Watts Up To 2 GHz FMAT8002](https://www.fairviewmicrowave.com/63.75-db-relay-controlled-step-attenuator-sma-female-fmat8002-p.aspx)

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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	DWG NO	CAGE CODE			
	FMAT8002	3FKR5			
0 to 63.75 dB 8 Bit Programmable Relay Controlled Step Attenuator With a 0.25 dB Step SMA Female Rated To 0.5 Watts Up To 2 GHz	CAD FILE 041117	SHEET	SCALE N/A	SIZE A	0157