

0 to 127 dB 7 Bit Programmable Relay Controlled Step Attenuator With a 1 dB Step SMA Female Rated To 1 Watt Up To 1.5 GHz

The FMAT8005 is a 7 Bit Relay Programmable Attenuator which operates over the frequency range of DC to 1500 MHz. The 50 ohm design has an attenuation range that covers 0 to 127 dB in 1 dB steps. Attenuation steps are 1, 2, 4, 8, 16, 32, and 64 dB. Insertion loss is 3.2 dB typical with a maximum RF input power 1 Watt average. Additional typical performance includes +/- 0.5 dB attenuation accuracy and switching speed of 6 milliseconds. The DC supply is +12 Vdc @ 30 mA per relay (7 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		1.5	GHz
Mean Attenuation Range	0		127	dB
Insertion Loss		3.2	4	dB
Input VSWR			1.4:1	
Power Rating			+30	dBm
Accuracy of Attenuation or 2% whichever is greater			±0.5	dB
Step Size	1			dB
Switching Time			6	ms
DC Power Supply		12		Volts

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Freq. Range	DC-0.5	0.5-1	1-1.5			GHz
Insertion Loss, Typ	2.1	2.7	3.2			dB

Electrical Specification Notes:

1, 2, 4, 8, 16, 32, and 64 dB bit Steps

Mechanical Specifications

Size

Weight	0.596 lbs [270.34 g]
Connector 1	SMA Female
Connector 2	SMA Female

Features:

- 7 Bit Relay Programmable Attenuator
- DC to 1500 MHz Bandwidth
- 0-127 dB Attenuation Range
- 1 dB Step Size
- 50 Ohms
- Switching Speed: 6 milliseconds
- Insertion Loss: 4 dB max
- Attenuation Accuracy: +/- 0.5 dB typ
- 1 Watt Average
- +12 Vdc at 30 mA
- SMA female connectors

Applications:

- Electronic Warfare
- Test & Measurement
- Military and Wireless Communications Systems
- Military & Space
- Radar

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Environmental Specifications

Temperature

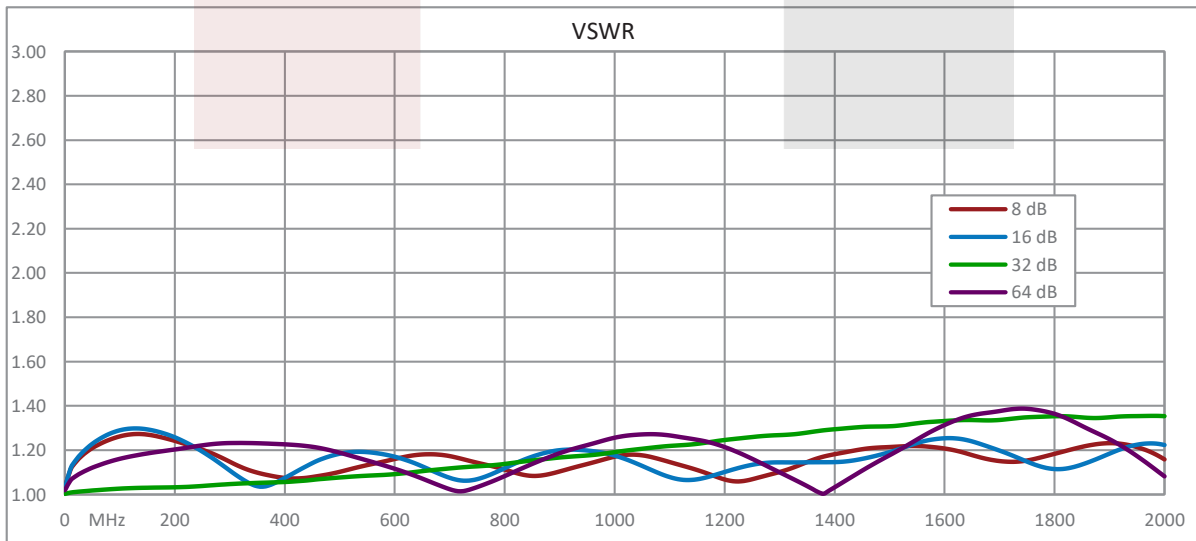
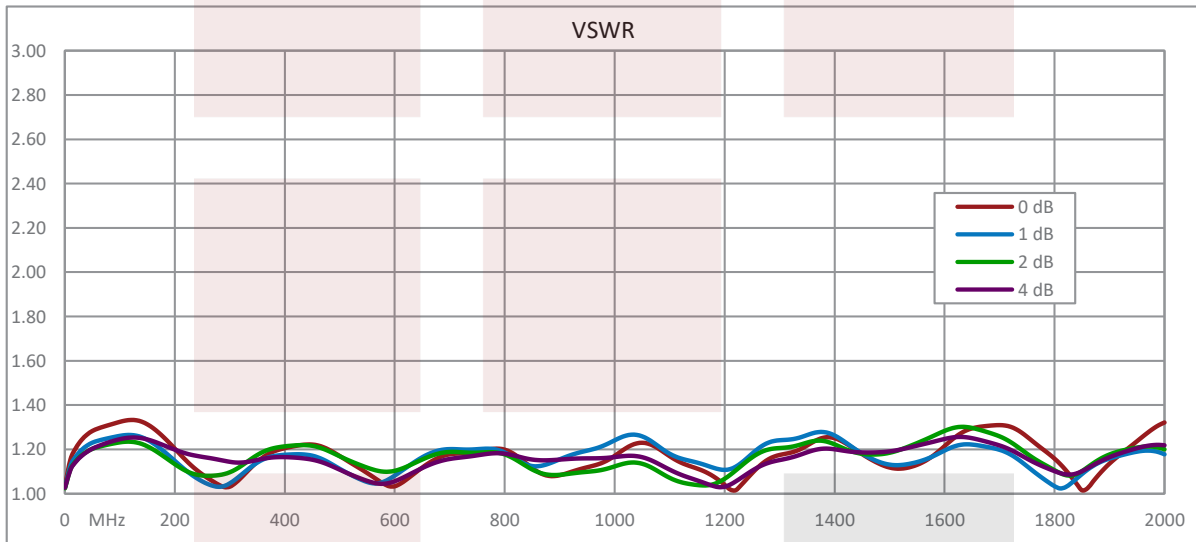
Operating Range -20 to +85 deg C

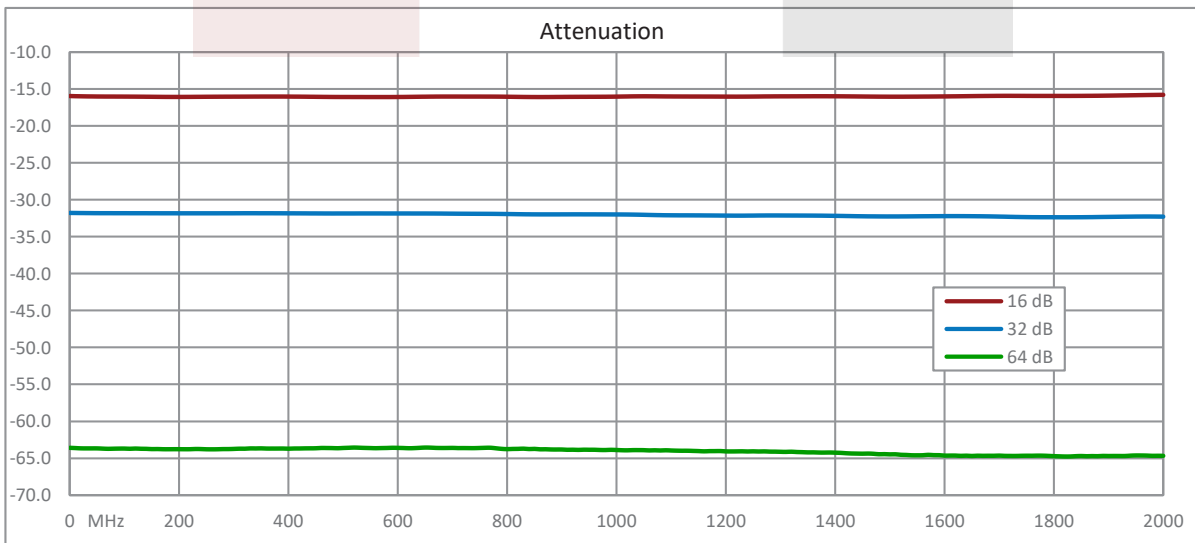
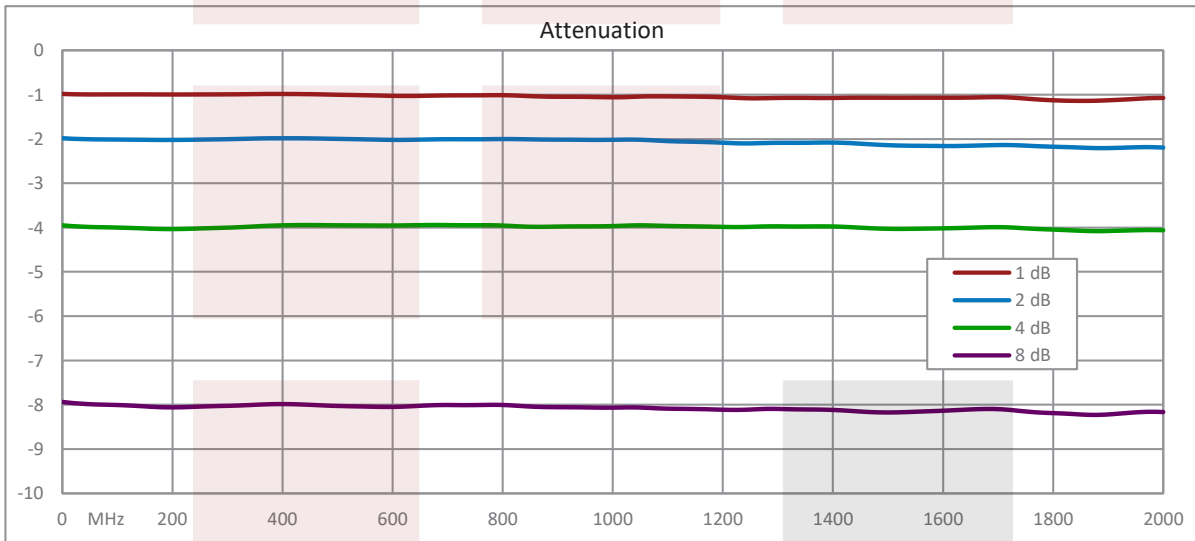
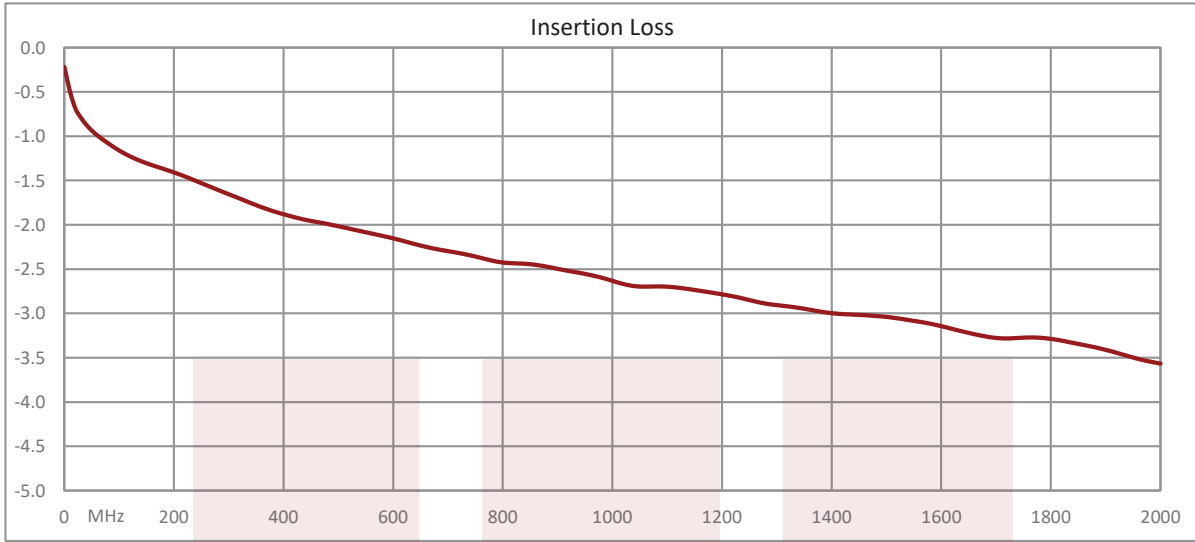
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



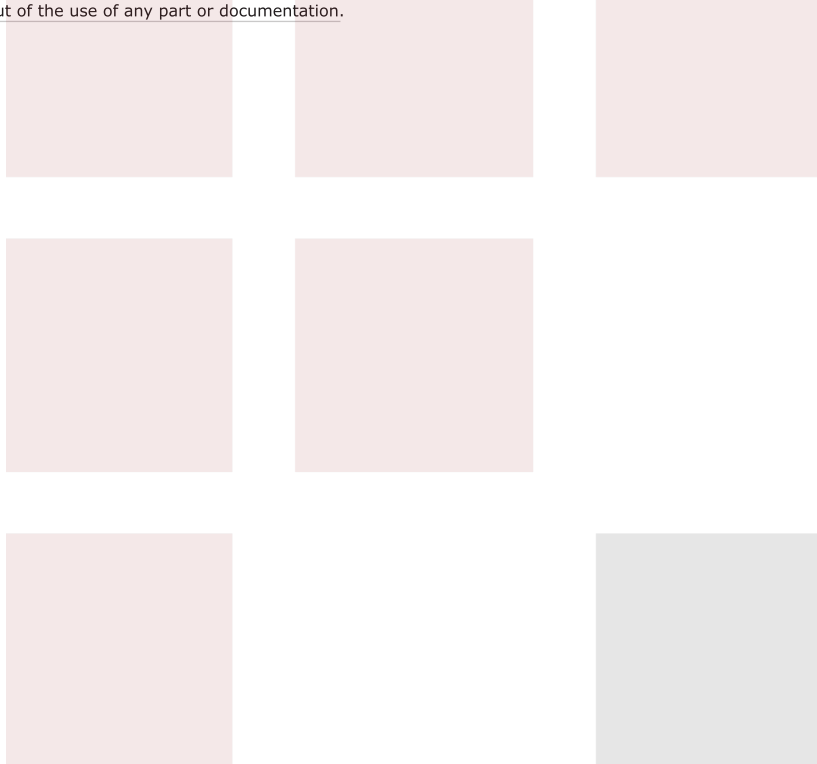


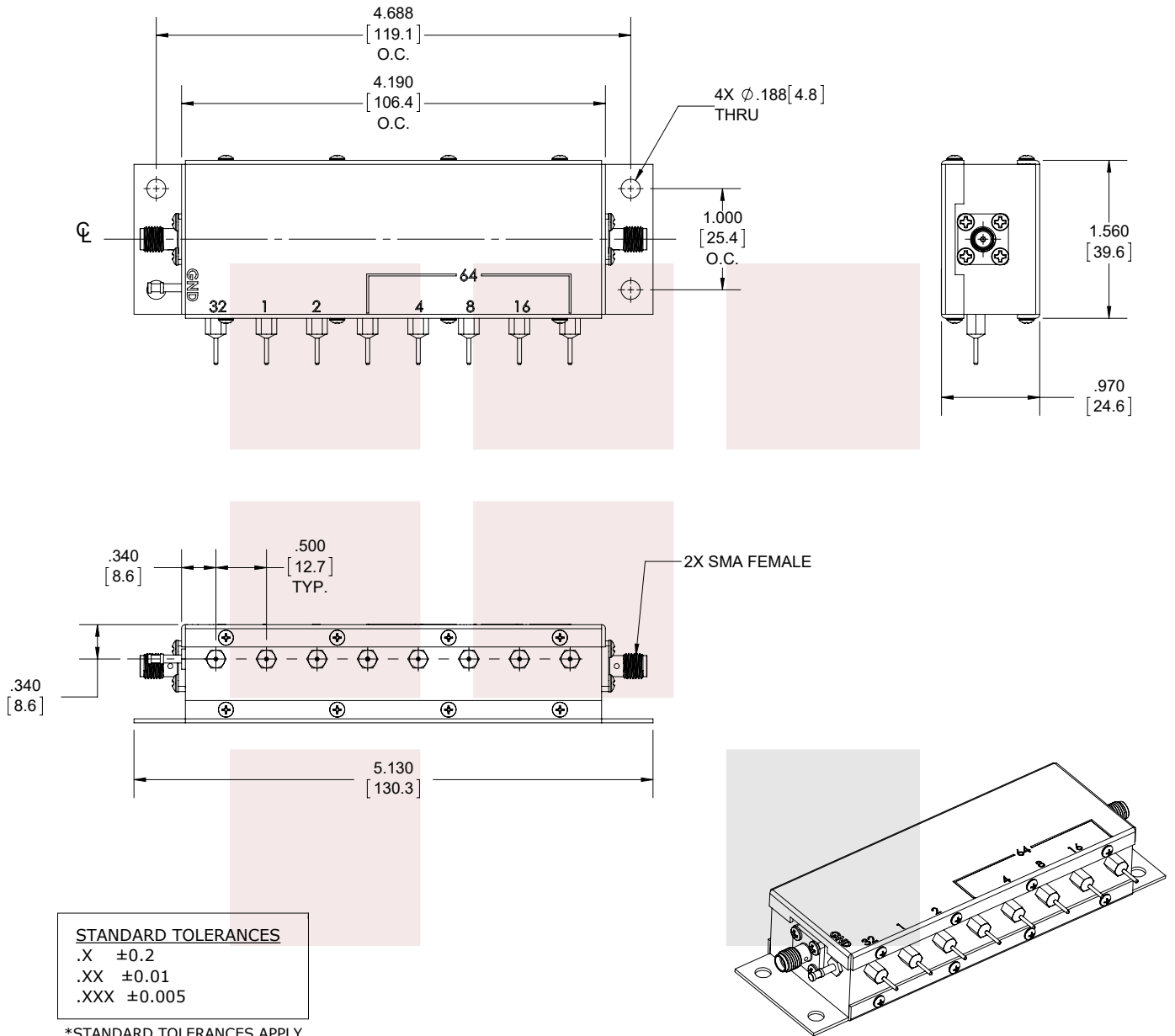
0 to 127 dB 7 Bit Programmable Relay Controlled Step Attenuator With a 1 dB Step SMA Female Rated To 1 Watt Up To 1.5 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [0 to 127 dB 7 Bit Programmable Relay Controlled Step Attenuator With a 1 dB Step SMA Female Rated To 1 Watt Up To 1.5 GHz FMAT8005](#)

URL: <https://www.fairviewmicrowave.com/127-db-relay-controlled-step-attenuator-sma-female-fmat8005-p.aspx>

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TITLE 0 to 127 dB 7 Bit Programmable Relay Controlled Step Attenuator With a 1 dB Step SMA Female Rated To 1 Watt Up To 1.5 GHz		DWG NO FMAT8005		CAGE CODE 3FKR5	
CAD FILE	062717	SHEET	1 OF 1	SCALE	N/A
		SIZE	A		9999