

0 to 31.5 dB 6 Bit Programmable Relay Controlled Step Attenuator With a 0.5 dB Step SMA Female Rated To 1 Watt Up To 1,000 MHz

The FMAT8001 is a 6 Bit Relay Programmable Attenuator which operates over the frequency range of DC to 1000 MHz. The 50 ohm design has an attenuation range that covers 0 to 31.5 dB in 0.5 dB steps. Attenuation steps are 0.5, 1, 2, 4, 8, and 16 dB. Insertion loss is 1.5 dB max with a maximum RF input power 1 Watt average. Additional typical performance includes +/- 0.2 dB attenuation accuracy and switching speed of 6 milliseconds. The DC supply is +12 Vdc @ 15 mA per relay (6 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		1,000	MHz
Mean Attenuation Range	0		31.5	dB
Insertion Loss			1.5	dB
Input VSWR			1.25:1	
Power Rating			+30	dBm
Accuracy of Attenuation ±0.2 dB or 2% whichever is greater				dB
Step Size	0.5			dB
Switching Time			6	ms
DC Power Supply 15 mA		12		Volts

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Freq. Range	DC-0.5	0.5-1				GHz
Insertion Loss, Max	0.8	1.5				dB

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

Mechanical Specifications

Size

Weight	0.49 lbs [222.26 g]
Connector 1	SMA Female
Connector 2	SMA Female



Features:

- 6 Bit Relay Programmable Attenuator
- DC to 1000 MHz Frequency Range
- 0-31.5 dB Attenuation Range
- Step Resolution of 0.5 dB
- Insertion Loss 1.5 dB max
- SMA 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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Environmental Specifications

Temperature

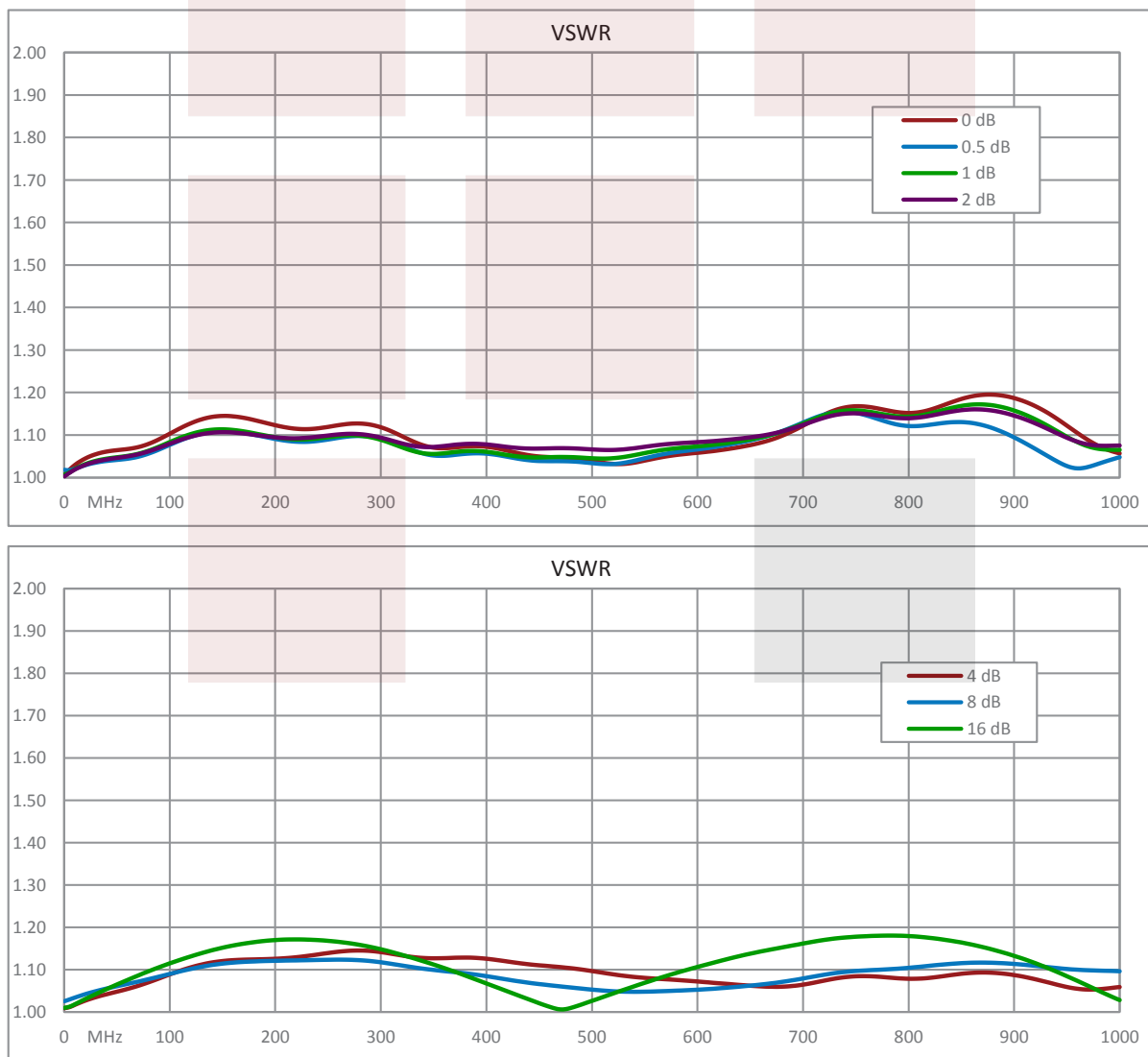
Operating Range -20 to +85 deg C

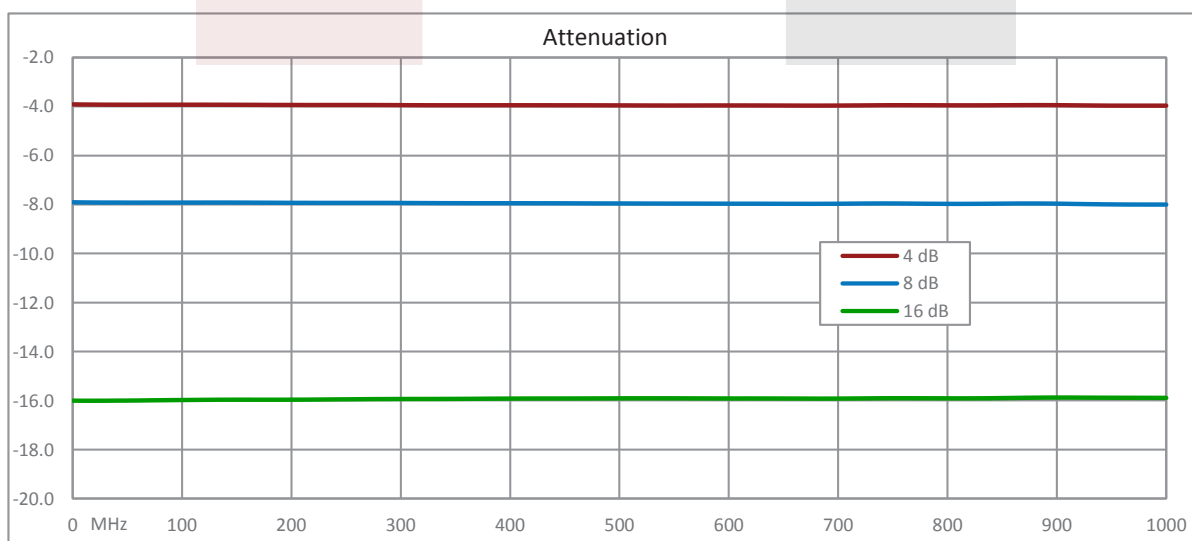
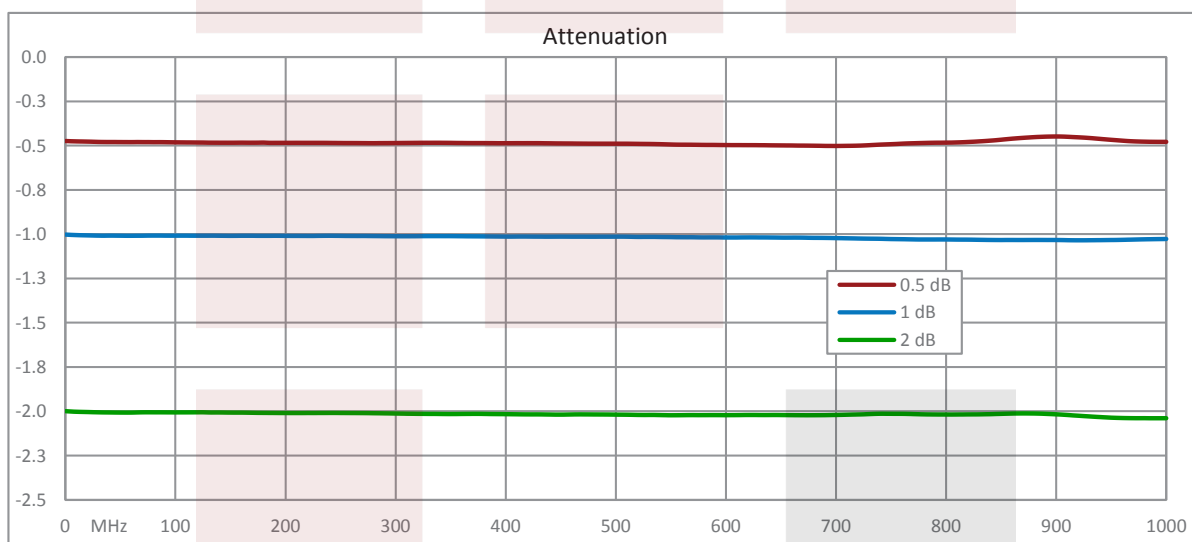
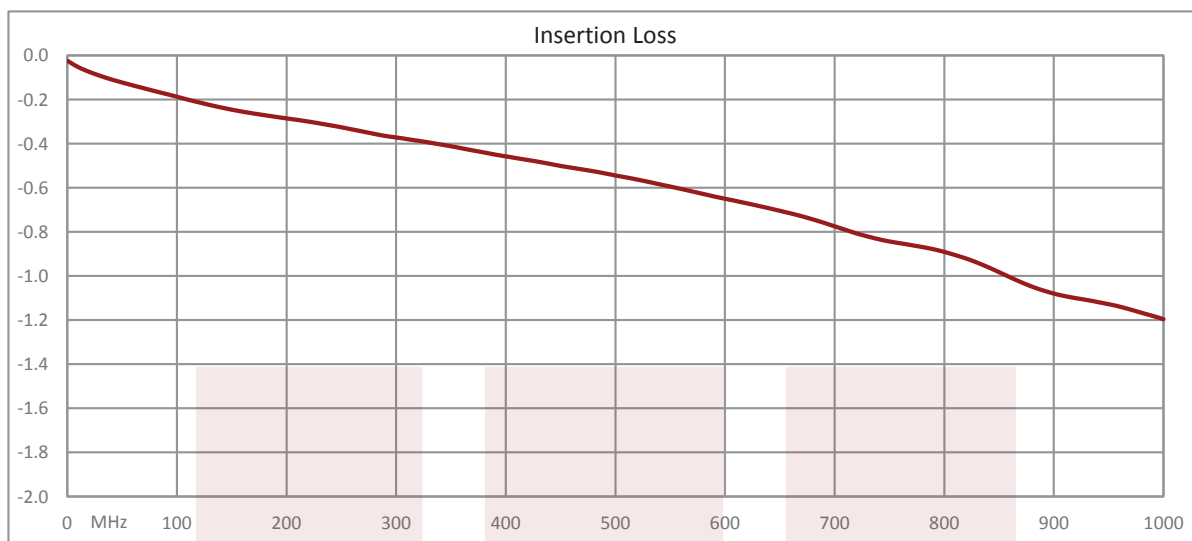
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



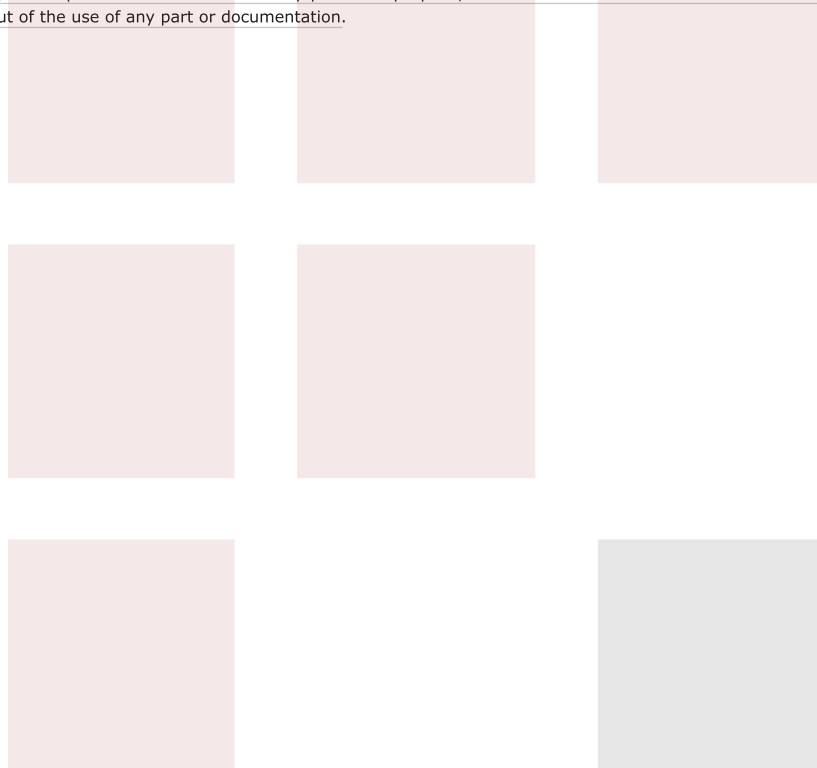


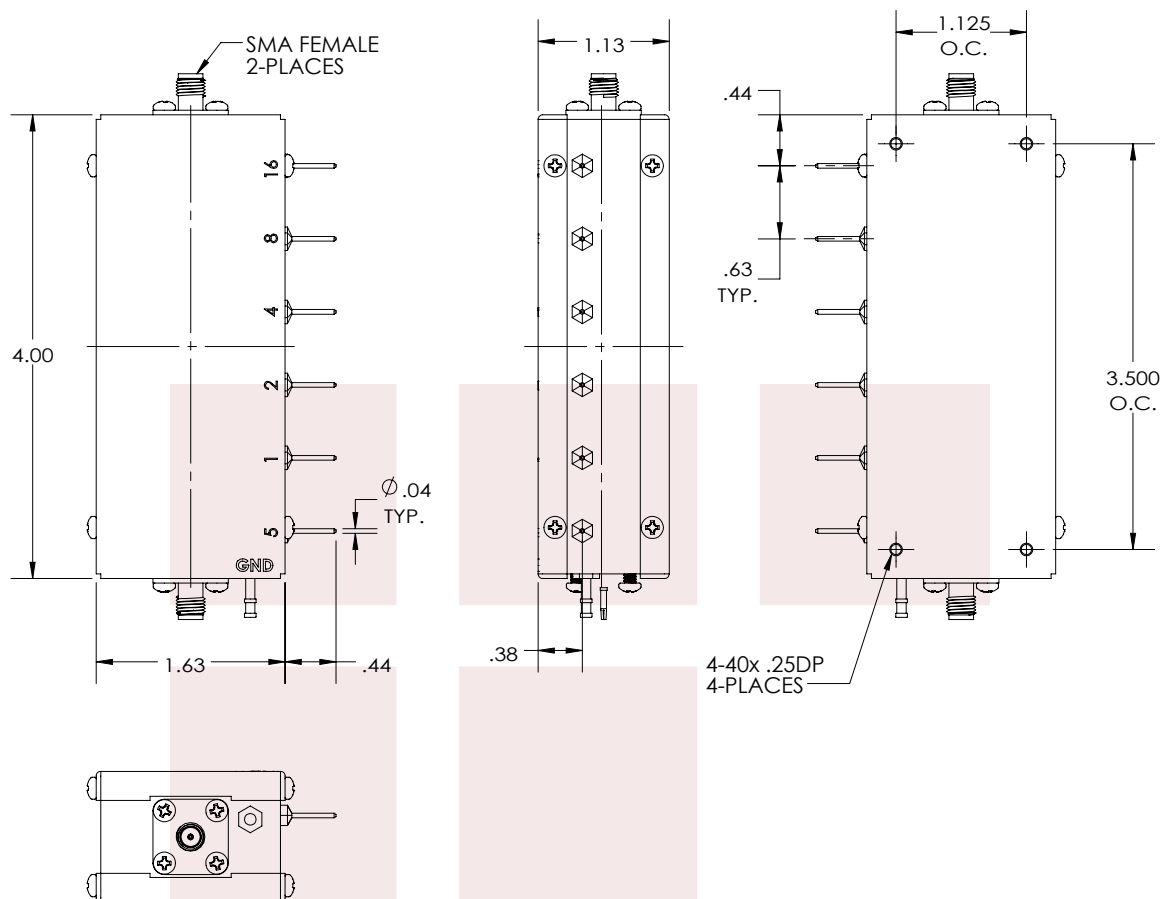
0 to 31.5 dB 6 Bit Programmable Relay Controlled Step Attenuator With a 0.5 dB Step SMA Female Rated To 1 Watt Up To 1,000 MHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [0 to 31.5 dB 6 Bit Programmable Relay Controlled Step Attenuator With a 0.5 dB Step SMA Female Rated To 1 Watt Up To 1,000 MHz FMAT8001](#)

URL: <https://www.fairviewmicrowave.com/31.5-db-relay-controlled-step-attenuator-sma-female-fmat8001-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.

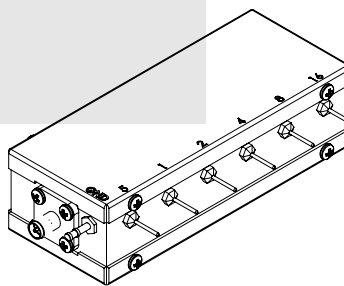




STANDARD TOLERANCES

.X ±0.2
.XX ±0.01
.XXX ±0.005

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES



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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

0 to 31.5 dB 6 Bit Programmable Relay Controlled
Step Attenuator With a 0.5 dB Step SMA Female
Rated To 1 Watt Up To 1,000 MHz

DWG NO

FMAT8001

CAGE CODE

3FKR5

CAD FILE

040817

SHEET

SCALE N/A

SIZE A

0157