

0 to 30 dB 5 Bit Programmable TTL Controlled Step Attenuator with a 1 dB Step 2.92mm Female to 2.92mm Female Rated to 0.25 Watts from 100 MH

FMAT5001 is a 5 Bit Programmable 30 dB Pin Diode Attenuator with Step Resolution as Low as 1 dB over the Operating Frequency Range from 0.1 GHz to 18 GHz. The RF Input/Output Connectors are 2.92mm Female. Along with a 15 Pin Micro-D Female Control Socket. The unit is shipped with a Micro-D Mating Connector.



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

Description	Min	Typ	Max	Unit
Frequency Range	0.1		18	GHz
Mean Attenuation Range	0		30	dB
Insertion Loss		5		dB
Input VSWR		2.5:1		
Power Rating		24	+24	dBm
Input at P1dB		+20		dBm
Accuracy of Attenuation				dB
0 dB to 30 dB		±2.5		dB
Step Size	1			dB
Switching Time				
On Time			1	us
Off Time			0.5	us
DC Power Supply			15	Volts
DC Current			50	mA
Logic Input				
Logic "0" (Bit Off) @ 0μA	0		0.8	Volts
Logic "1" (Bit On) @ 0μA	2		5	Volts

Mechanical Specifications

Size	
Length	2 in [50.8 mm]
Width	1.8 in [45.72 mm]
Height	0.5 in [12.7 mm]
Weight	0.1545 lbs [70.08 g]
Connector 1	2.92mm Female
Connector 2	2.92mm Female

Features:

- 5 Bit Programmable 30 dB Pin Diode Attenuator
- 0.1 GHz to 18 GHz Frequency Range
- 30 dB Attenuation Range
- Step Resolution of 1 dB
- Insertion Loss 5 dB Typ
- RF Connectors are 2.92mm Female
- 15 Pin Micro-D Female Connector

Applications:

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

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Environmental Specifications

Temperature

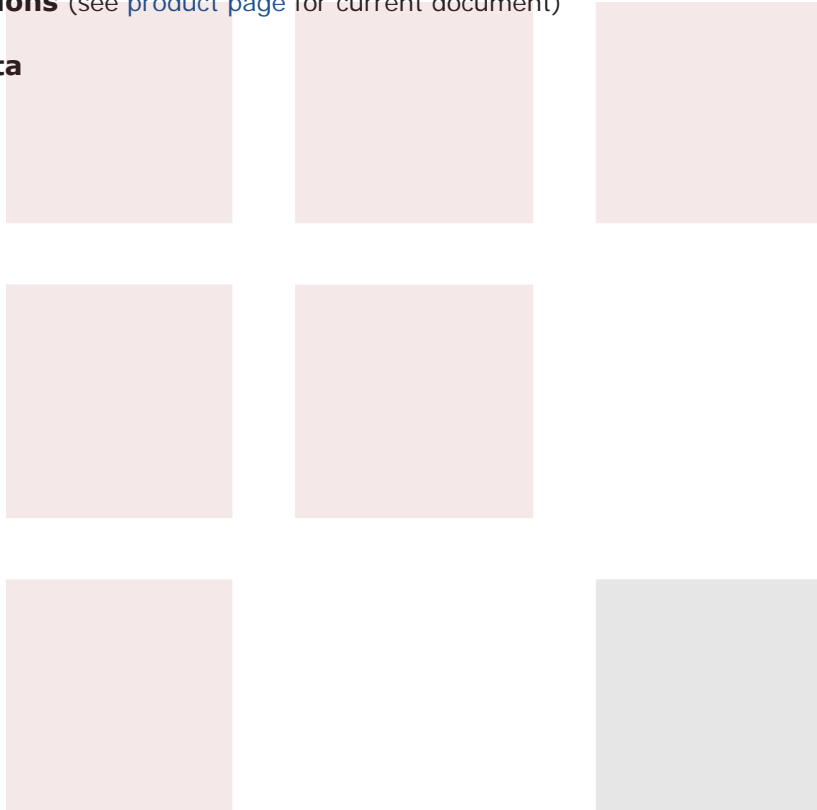
Operating Range -50 to +85 deg C
Storage Range -65 to +125 deg C

Humidity MIL-STD-202F, METHOD 103B COND. B
Shock MIL-STD-202F, METHOD 213B COND. B
Vibration MIL-STD-202F, METHOD 204D COND. B
Altitude MIL-STD-202F, METHOD 105C COND. B
Temperature Cycling MIL-STD-202F, METHOD 107
Salt Spray MIL-STD-202F, METHOD 105C COND. B

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

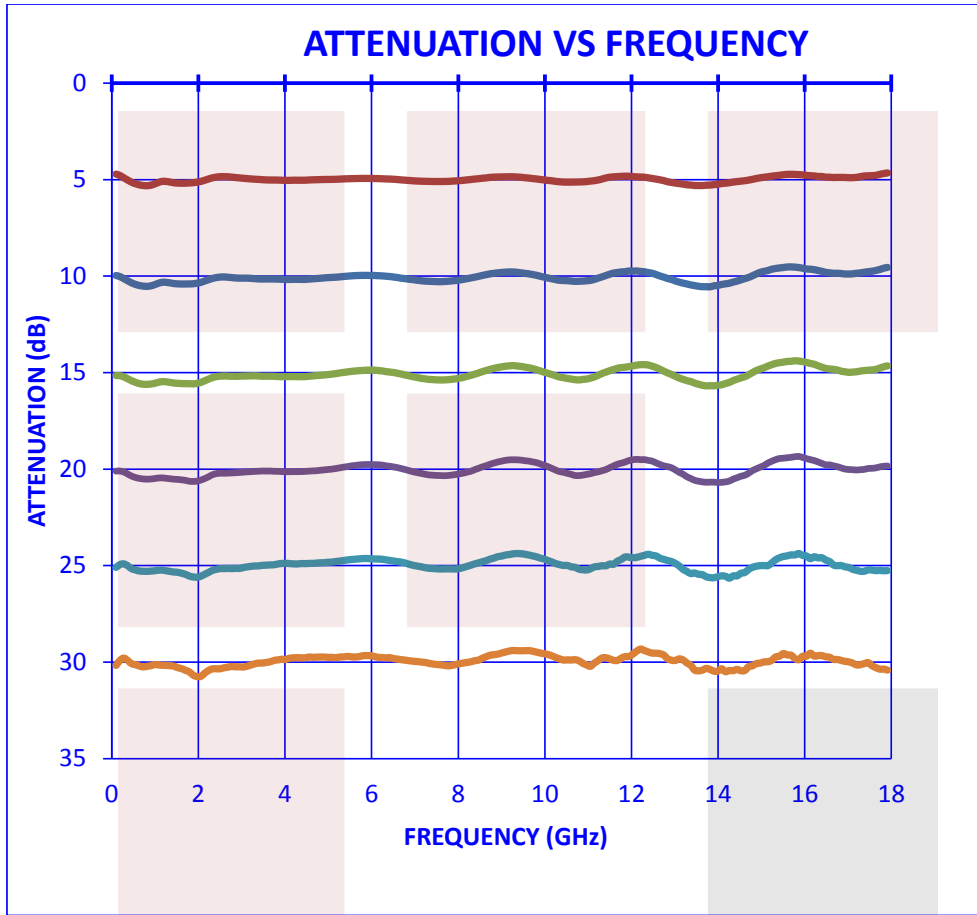
Plotted and Other Data

Notes:

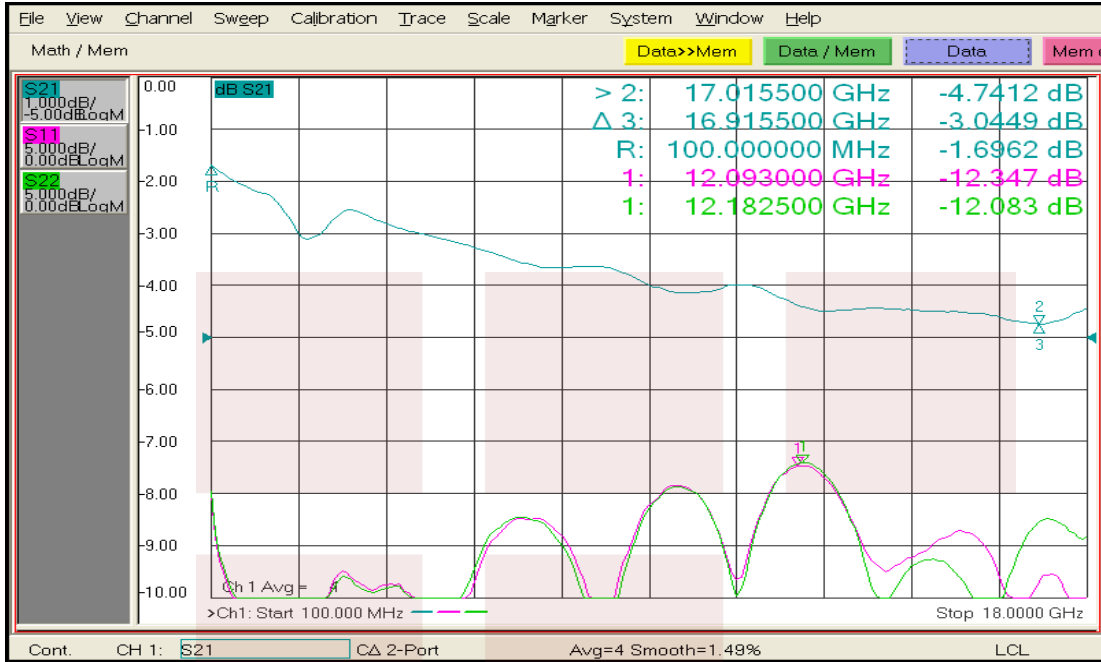


Typical Performance Data

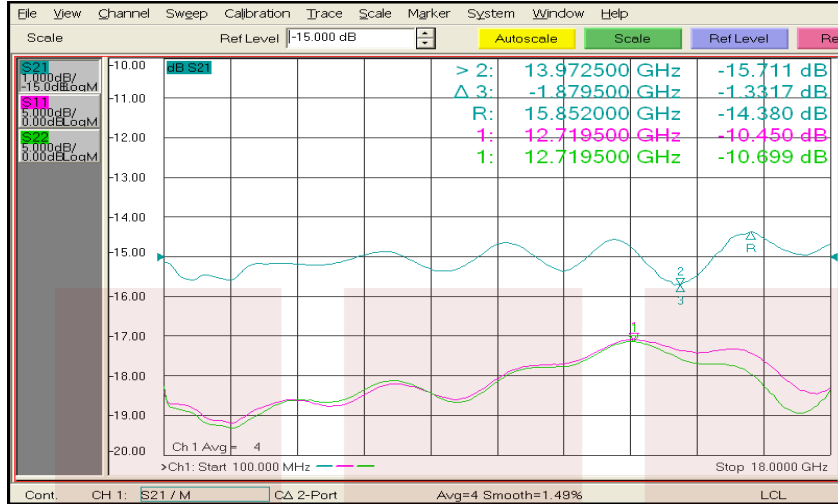
Attenuation vs. Frequency Plot



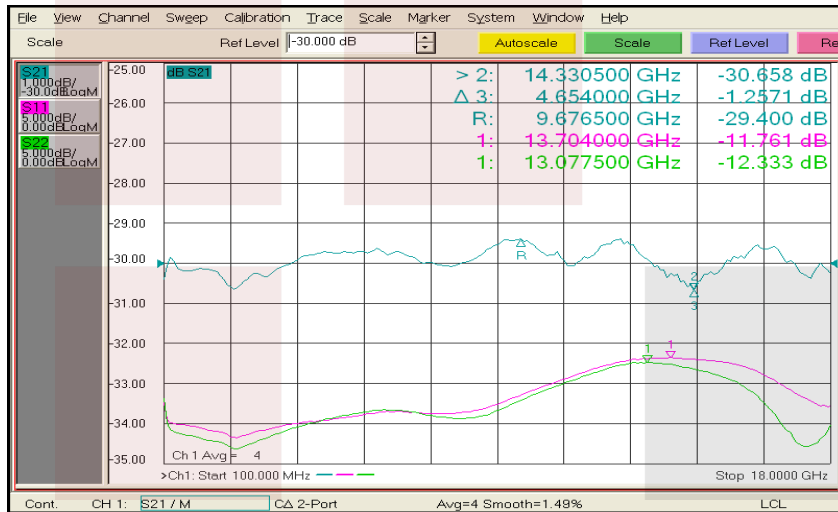
Insertion Loss & Return Loss



-15dB Attenuation



-30dB Attenuation



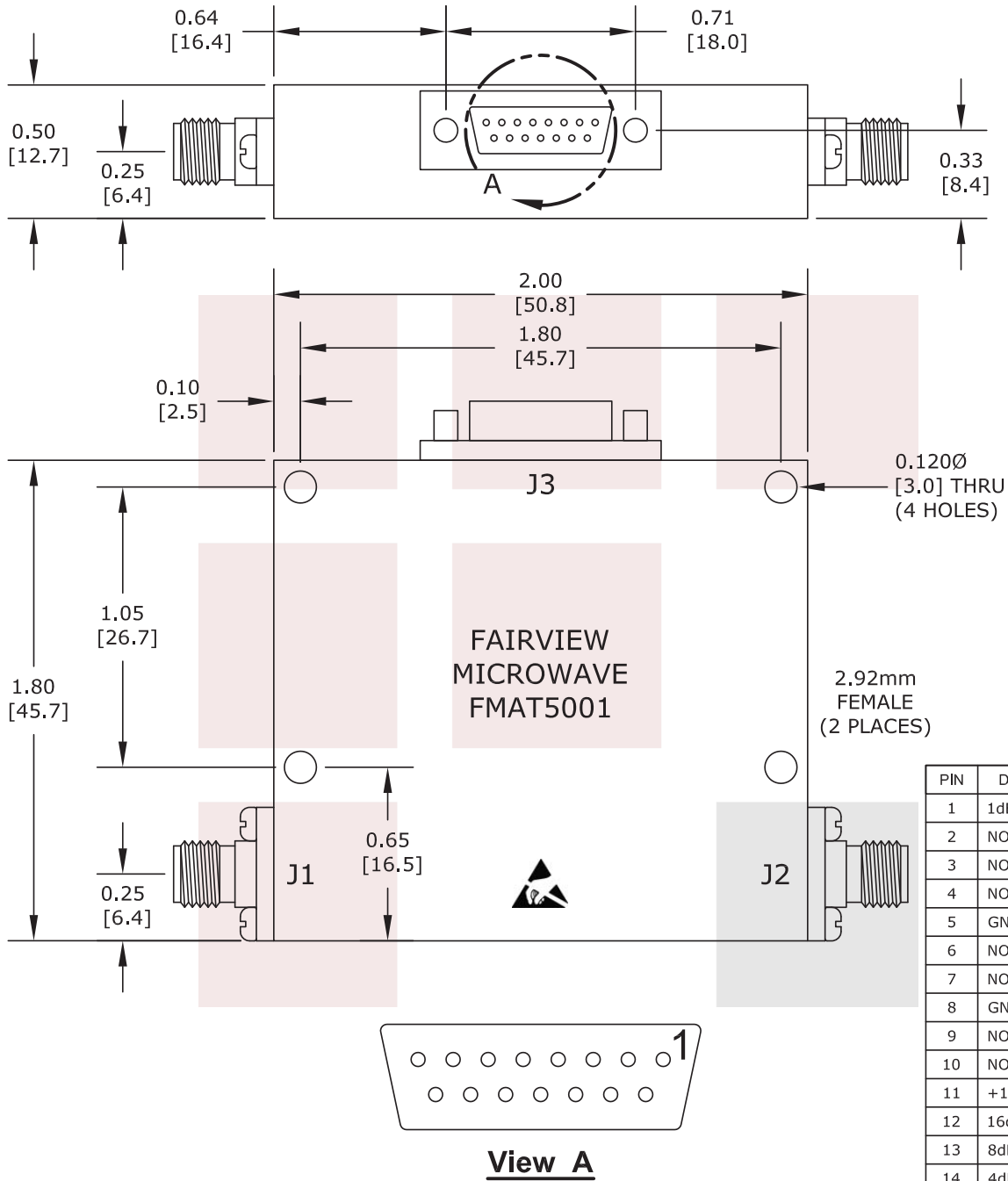
0 to 30 dB 5 Bit Programmable TTL Controlled Step Attenuator with a 1 dB Step 2.92mm Female to 2.92mm Female Rated to 0.25 Watts from 100 MH from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [0 to 30 dB 5 Bit Programmable TTL Controlled Step Attenuator with a 1 dB Step 2.92mm Female to 2.92mm Female Rated to 0.25 Watts from 100 MH FMAT5001](#)

URL: <https://www.fairviewmicrowave.com/30-db-ttl-controlled-step-attenuator-2.92mm-female-fmat5001-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.





PIN	DESCRIPTION
1	1dB
2	NO CONNECTION
3	NO CONNECTION
4	NO CONNECTION
5	GND
6	NO CONNECTION
7	NO CONNECTION
8	GND
9	NO CONNECTION
10	NO CONNECTION
11	+15 VDC
12	16dB
13	8dB
14	4dB
15	2dB

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 30 dB 5 Bit Programmable TTL Controlled Step Attenuator with a 1 dB Step 2.92mm Female to 2.92mm Female Rated to 0.25 Watts from 100 MH		DWG NO FMAT5001		CAGE CODE 3FKR5	
CAD FILE	082916	SHEET	SCALE	N/A	SIZE A 2233