

18 GHz to 26 GHz Absorptive Voltage Control Attenuator, 30 dB, Field Replaceable SMA

The FMAT2008 is a Reflective Analog Voltage Variable Attenuator module that operates across a frequency range from 18 GHz to 26 GHz and supports a single voltage control of 0V to 10V with 20 mA of DC Current. The 50 ohm circuit design uses a reflective topology and offers an attenuation range from 0 to 30 dB across the full frequency band. Impressive typical performance includes 1.5 dB insertion loss, a P0.1dB compression point of +30 dBm, input IP3 of 43 dBm, switching speed of < 2.5 usec, and a maximum RF input power level of +30 dBm. The low profile miniature pin package is Copper with gold plating and supports field replaceable SMA RF connectors and solder pins for DC control. With the connectors removed, the package can be drop mounted onto a PWB. The module has an operational temperature range from -40°C to +85°C and is guaranteed to meet a series of environmental test conditions for Altitude, Vibration, Humidity, and Shock.

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

Description	Min	Typ	Max	Unit
Frequency Range	18		26	GHz
Attenuation Range		30		dB
Insertion Loss		1.5	2.2	dB
VSWR		1.8:1	2:1	
RF Input Power		+30	+30	dBm
Input at 0.1 dB Compression Point		+30		dBm
Switching Time			2.5	us
Switching Speed			2.5	us
Control Voltage		0 to 10		Volts
DC Current		20		mA
Impedance		50		Ohms
Input IP3		43		dBm
IL Temperature Coefficient		0.003		dB/deg C

Absolute Maximum Rating

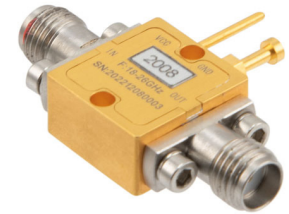
Parameter	Rating
Control Voltage	0~ 13V
RF Input power	+30dBm



ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

Mechanical Specifications

Size	
Length	0.55 in [13.97 mm]
Width	0.28 in [7.11 mm]
Height	0.51 in [12.95 mm]
Weight	0.002 lbs [0.91 g]
Input Connector	Field Replaceable SMA Female



Features:

- Reflective Voltage Controlled Attenuator
- 18 GHz to 26 GHz
- Attenuation Range 0 to 30 dB typ
- Insertion Loss 1.5 dB- typ
- P0.1 dB Compression Power +30 dBm typ
- Input IP3 43 dBm typ
- Switching Speed < 2.5 usec
- Max RF Input Power +30 dBm
- Control Voltage 0V to 10V
- 50 Ohm Circuit Design uses a Reflective Topology
- Field Replaceable SMA Female RF Connectors
- Solder Pins for DC Control
- Operational Temperature Range -40°C to +85°C
- Rugged and Compact Aluminum Gold Plated Package Design
- Guaranteed Environmental Test Conditions Altitude, Vibration, Humidity, Shock
- Single Control Voltage

Applications:

- Test & Measurement
- Military and Commercial Communications
- Military Electronic Systems
- Research & Development

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Output Connector
 Power and Control

Field Replaceable SMA Female
 Solder Pin

Environmental Specifications

Temperature

Operating Range -40 to +85 deg C
 Storage Range -50 to +105 deg C

Humidity 100% RH at 35°C, 95% RH at 40°C
 Shock 20G for 11 msec half sine wave, 3 axis both directions
 Vibration 25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
 Altitude 30,000 Feet

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

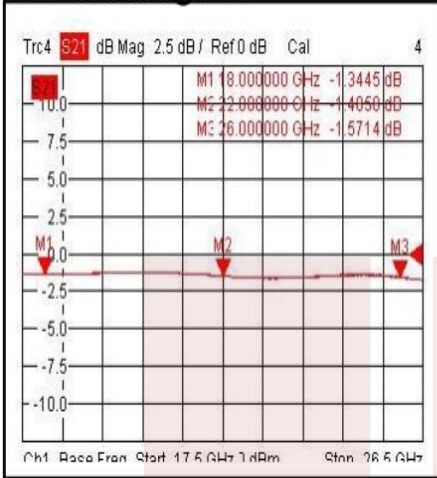
Plotted and Other Data

Notes:
 • Values at 25 °C, sea level

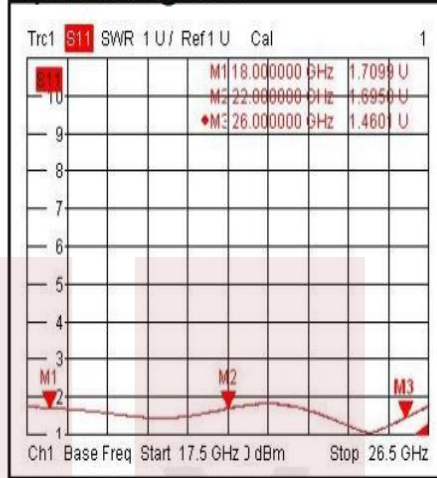


Typical Performance Data

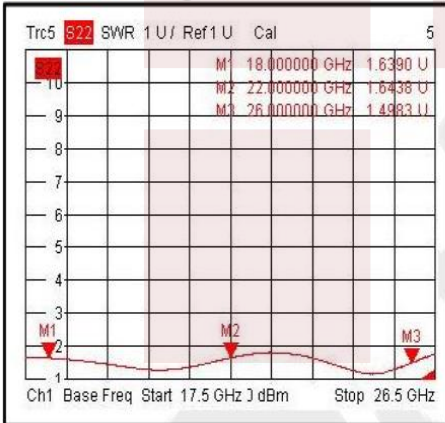
Insertion Loss @+25°C



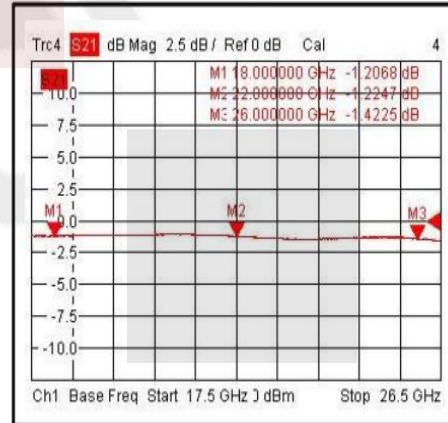
Input VSWR @+25°C



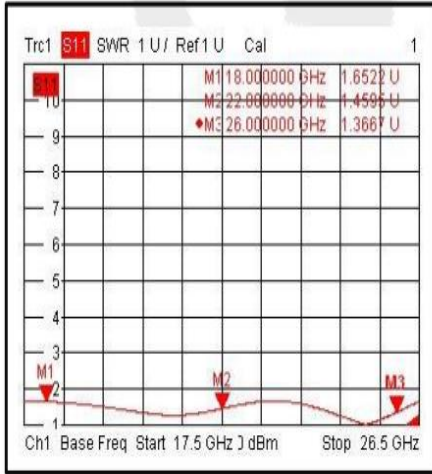
Output VSWR @+25°C



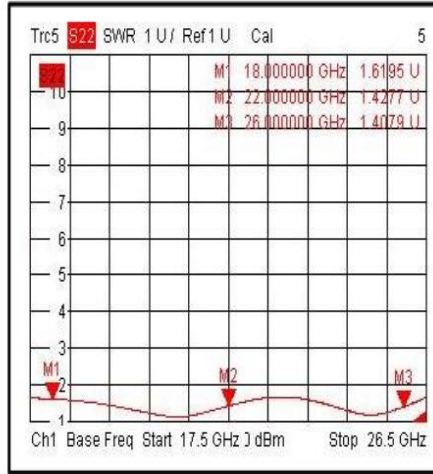
Insertion Loss @-40°C



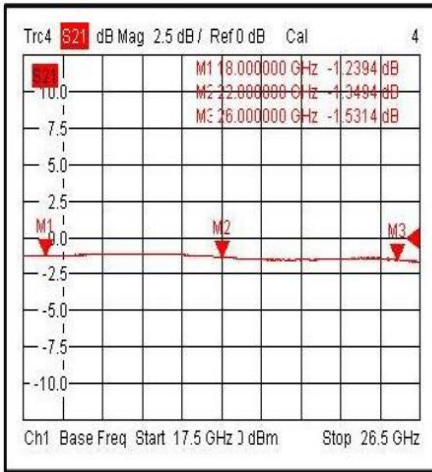
Input VSWR @-40°C



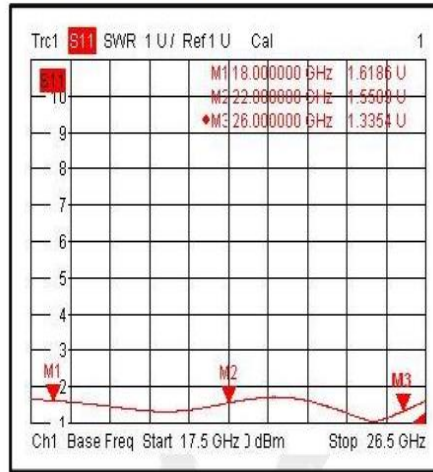
Output VSWR @-40°C



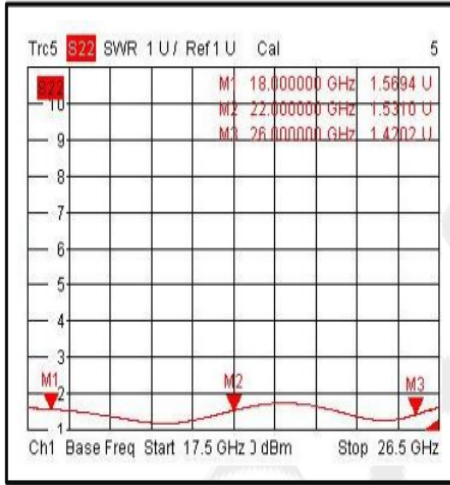
Insertion Loss@+85°C



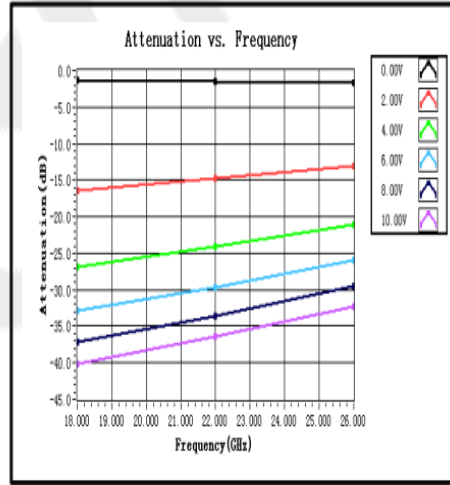
Input VSWR @+85°C



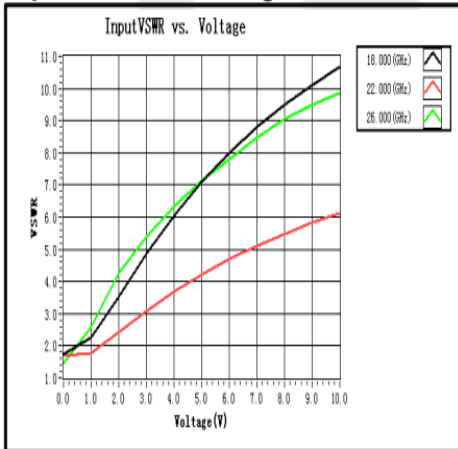
Output VSWR @+85°C



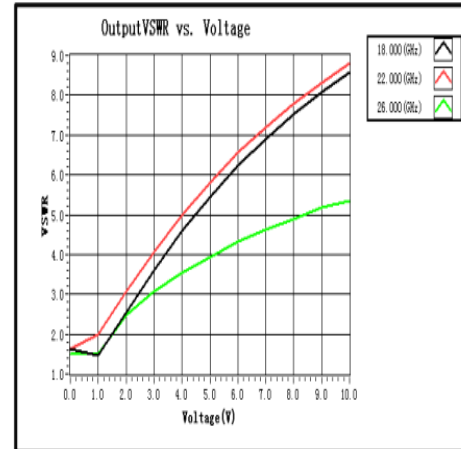
Attenuation vs. Frequency



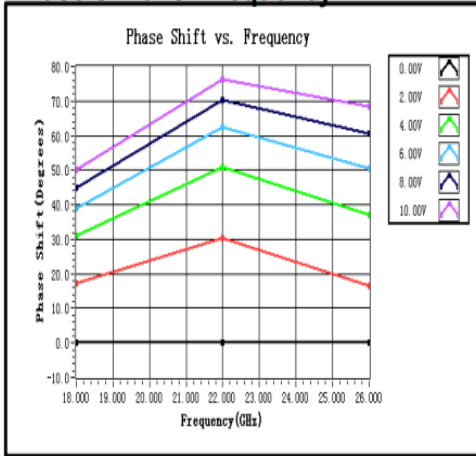
Input VSWR vs. Voltage



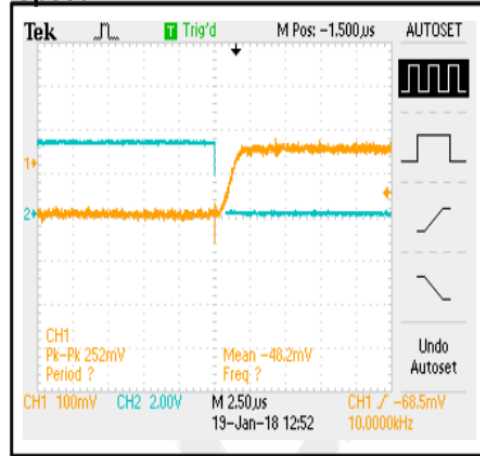
Output VSWR vs. Voltage



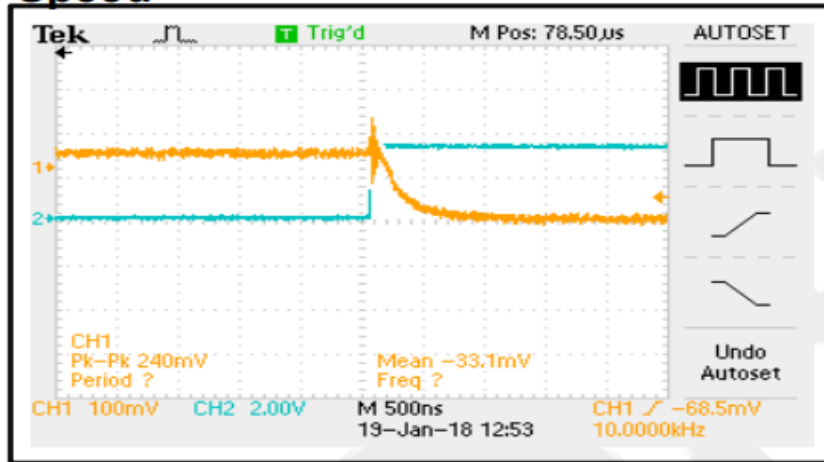
Phase Shift vs. Frequency



Speed



Speed



18 GHz to 26 GHz Absorptive Voltage Control Attenuator, 30 dB, Field Replaceable SMA 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: [18 GHz to 26 GHz Absorptive Voltage Control Attenuator, 30 dB, Field Replaceable SMA FMAT2008](https://www.fairviewmicrowave.com/30db-voltage-variable-30-dbm-attenuator-pin-diode-26-ghz-fmat2008-p.aspx)

URL: <https://www.fairviewmicrowave.com/30db-voltage-variable-30-dbm-attenuator-pin-diode-26-ghz-fmat2008-p.aspx>

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