

### Negative Slope Equalizer, 1 GHz to 4 GHz, 6 dB Fixed Equalizing Value, 0.6 dB Loss, Max Pin 250 mW, SMA

The FMAT9020 is a Negative Slope Equalizer module that covers a frequency range from 1 GHz to 4 GHz and exhibits a fixed attenuation response that decreases linearly with frequency. The 50 Ohm design has an equalizing value of 6 dB typical at 4 GHz. Negative slope equalizers are particularly useful in compensating the gain slope in systems where large amounts of cabling may cause excessive loss at higher frequencies over the operating band. Impressive typical performance includes low insertion loss of 0.6 dB, 1.8:1 VSWR, +/- 0.5 dB linearity, and maximum RF input power handling of +24 dBm. The rugged and compact package design supports field replaceable SMA female connectors, operates across a wide temperature range of -55°C to +95°C, and meets MIL-E-5400 and MIL-E-16400 environmental requirements.



#### Features:

- Negative Slope Equalizer Module
- Frequency Range 1 GHz to 4 GHz
- 6 dB Fixed Equalizing Value
- Insertion loss 0.6 dB typ
- VSWR 1.8:1 typ
- Linearity +/- 0.8 dB
- Maximum RF Input Power +24 dBm
- Operational Temperature Range -55°C to +95°C
- Field Replaceable SMA Female Connectors
- Rugged Mil Grade Aluminum Package Design
- Designed to meet MIL-E-5400 and MIL-E 16400 environmental requirements

Description	Min	Typ	Max	Units
Frequency Range	1		4	GHz
Small Signal Insertion Loss		0.6		dB
Equalizing Type		Negative		
Input VSWR		1.8:1		
Output VSWR		1.8:1		
Impedance(IN/Out)		50		Ohms
RF Input Power			24	dBm
Linearity		+/-0.8		dB

#### Mechanical Specifications

Input Connector	SMA Female (Field Replaceable)
Output Connector	SMA Female (Field Replaceable)
Length	0.59in 14.99mm
Width	0.63in 16mm
Height	0.39in 9.91mm
Weight	0.03lbs

#### Environmental

Temperature Operating Range	-55 to +95 deg C
Storage Range	-65 to +125 deg C

#### Compliance Certifications (see for current document)

#### Plotted and Other Data

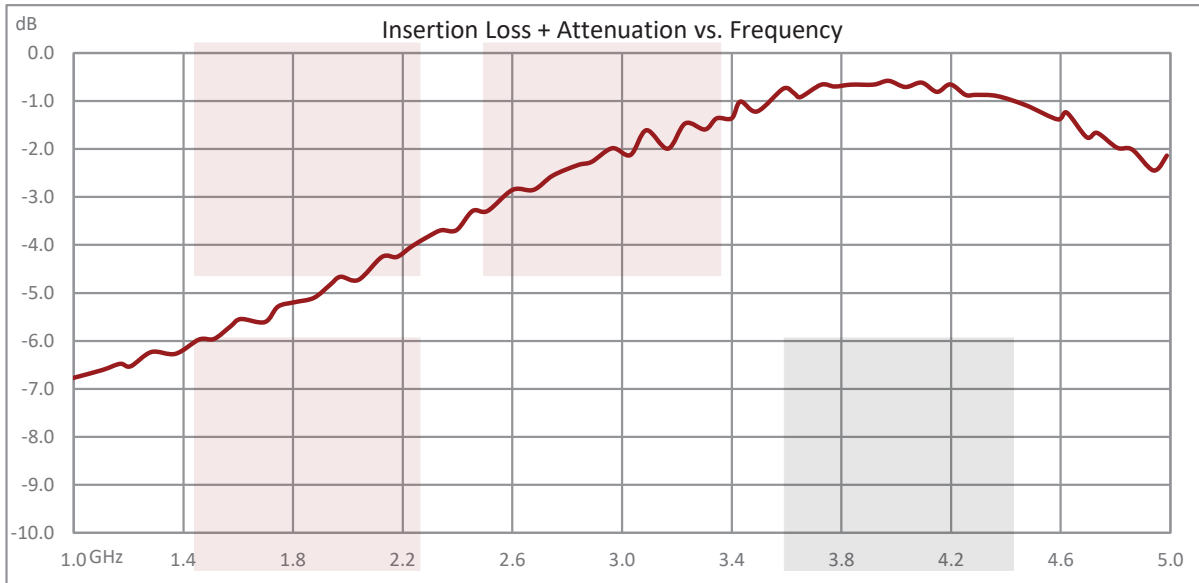
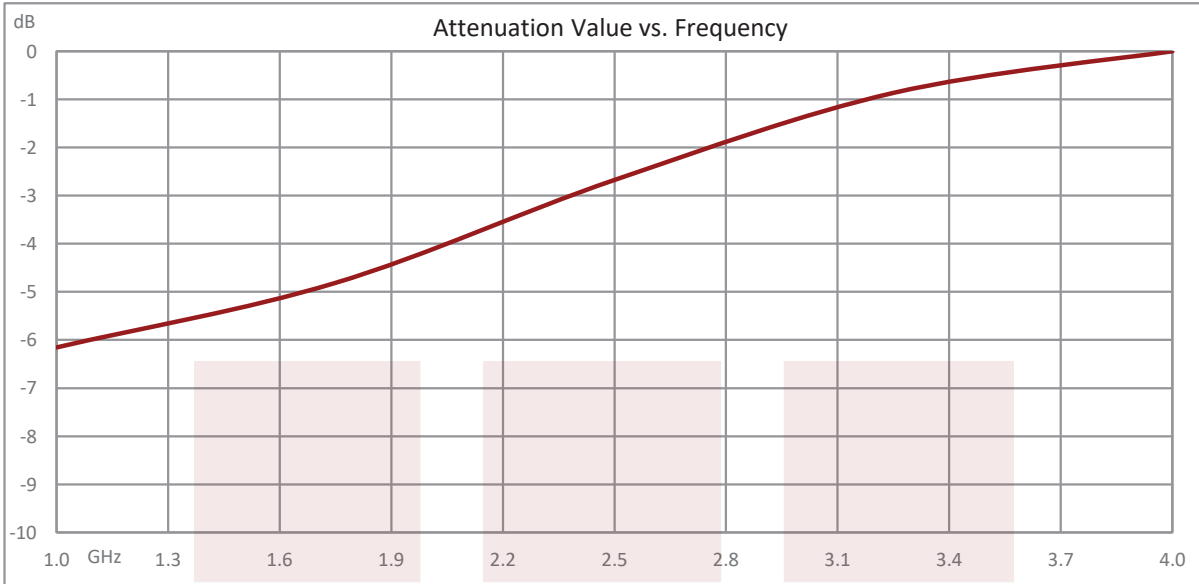
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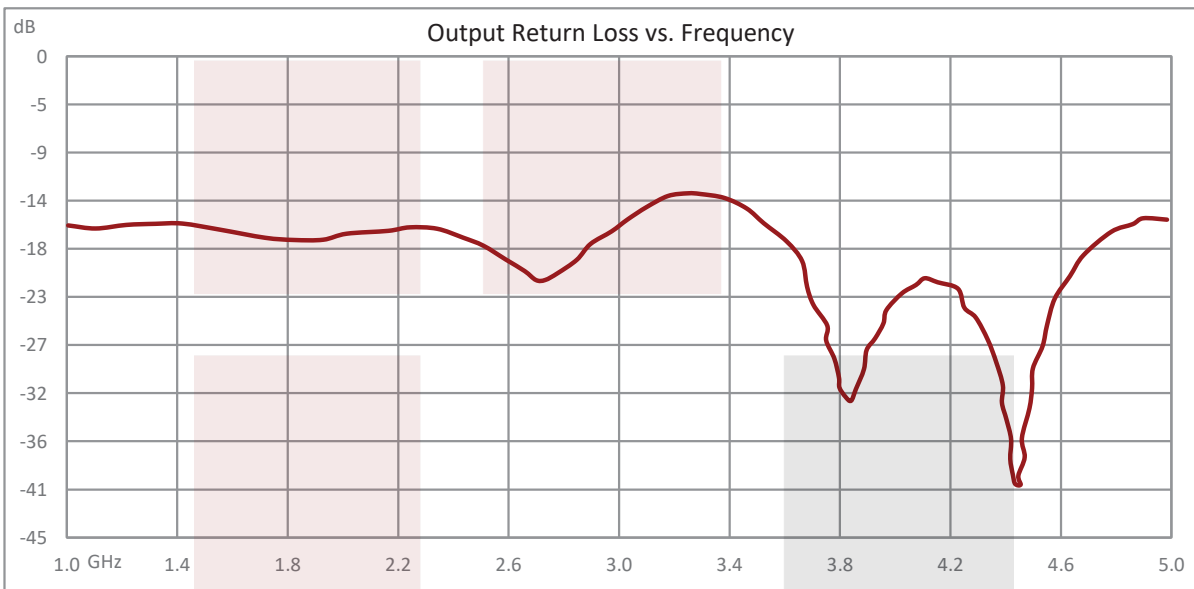
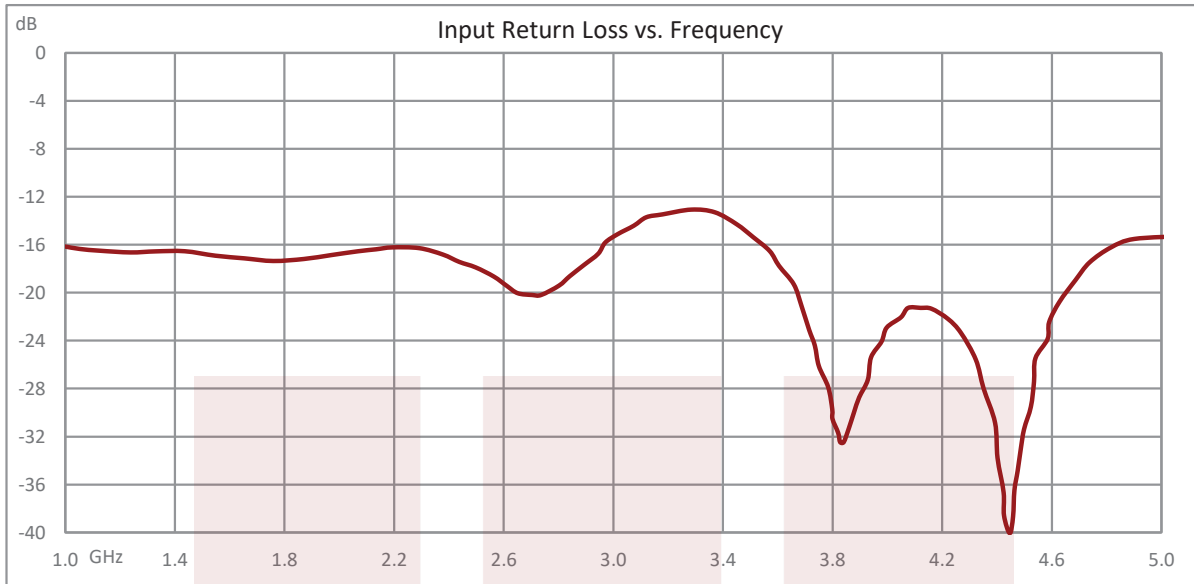
- Values at +25 °C, sea level

#### Applications:

- Gain Slope Compensation in Systems with excessive loss at higher frequencies over the Operating Band
- Aerospace & Defense
- Test & Measurement
- Microwave Radio Systems
- Military & Commercial Communication Systems
- Research & Development
- SATCOM
- Wireless Communications

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Negative Slope Equalizer, 1 GHz to 4 GHz, 6 dB Fixed Equalizing Value, 0.6 dB Loss, Max Pin 250 mW, SMA from Pasternack Enterprises has same day shipment for domestic and International orders Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

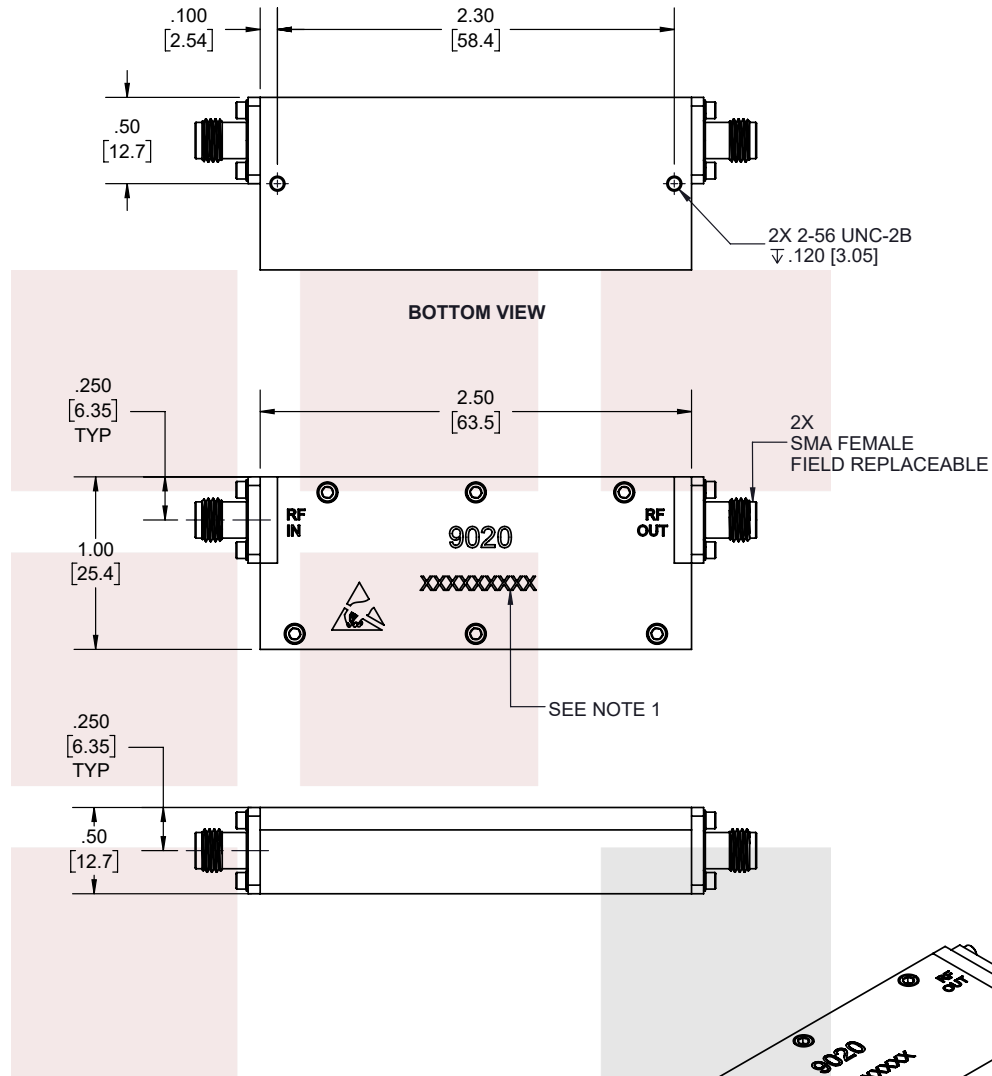
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Negative Slope Equalizer, 1 GHz to 4 GHz, 6 dB Fixed Equalizing Value, 0.6 dB Loss, Max Pin 250 mW, SMA FMAT9020](#)

URL: <https://www.fairviewmicrowave.com/1-ghz-to-4-ghz-field-replaceable-sma-Aegative-slope-equalizer-fmat9020-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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	3/4/2022	T. GALLA



**NOTES:**

- SERIAL NUMBER AND DATE CODE ARE COMBINED.  
EX: 221891396

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TITLE  
Negative Slope Equalizer, 1 GHz to 4 GHz, 6 dB Fixed Equalizing Value, 0.6 dB Loss, Max Pin 250 mW, SMA

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
.X = ±.2 [5.08]	FRACTIONS ± 1/32	L ≤ 12 [305] = +1 [25] / -0	
.XX = ±.02 [.51]		12 [305] < L ≤ 60 [1524] = +2 [51] / -0	
.XXX = ±.005 [.13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0	
		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0	
		300 [7620] < L = +5%L / -0	

THIRD-ANGLE PROJECTION  
  
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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	ITEM NO. FMAT9020	REV A
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T-Rev.D