



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

## TECHNICAL DATA SHEET

PE70A9020

The PE70A9020 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

### 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

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	1		4	GHz
Small Signal Insertion Loss		0.6		dB
Equalizing Type		Negative		
Equalizing Value		6		
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

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 PE70A9020](#)



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Height 0.39in 9.91mm  
Weight 0.03lbs

**Environmental**

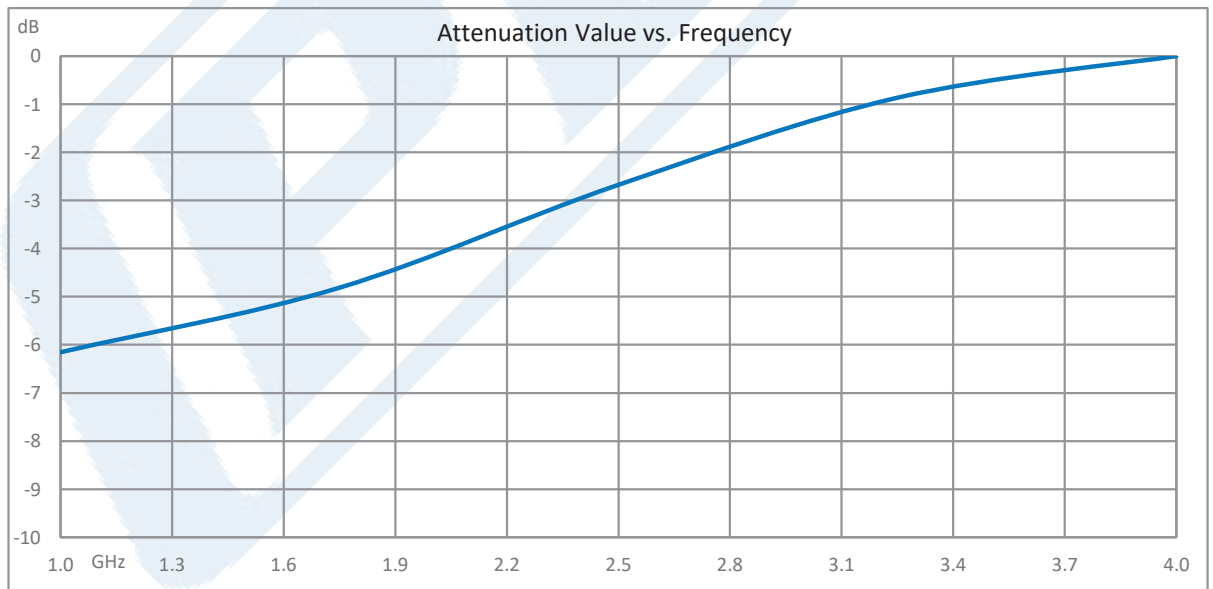
Temperature  
Operating Range -55 to +95 deg C  
Storage Range -65 to +125 deg C

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

**Plotted and Other Data**

Notes:

- Values at +25 °C, sea level



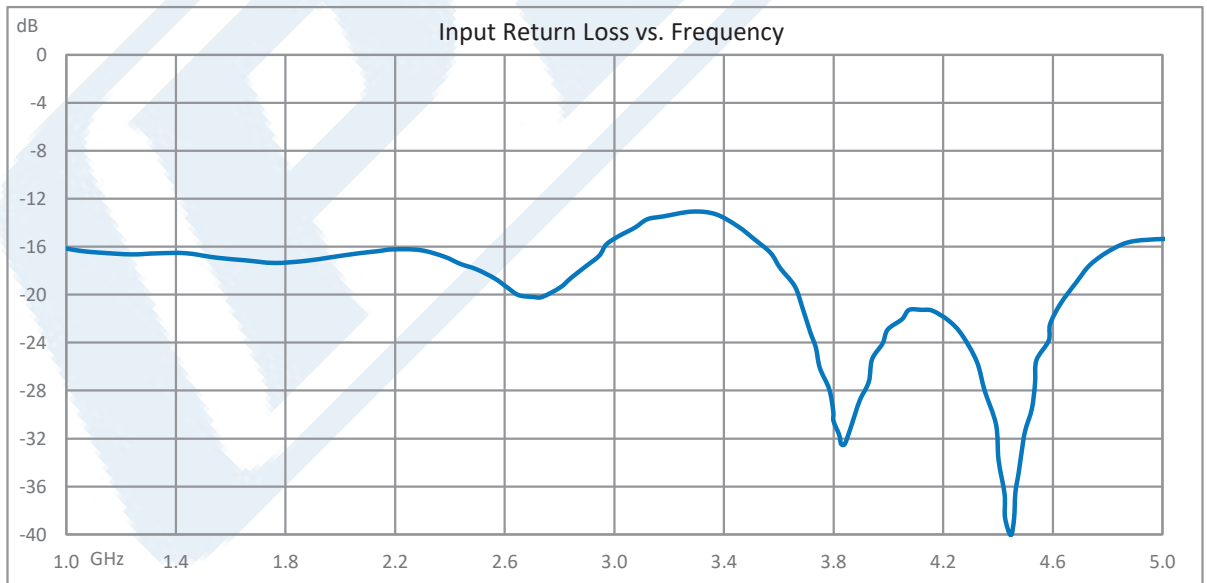
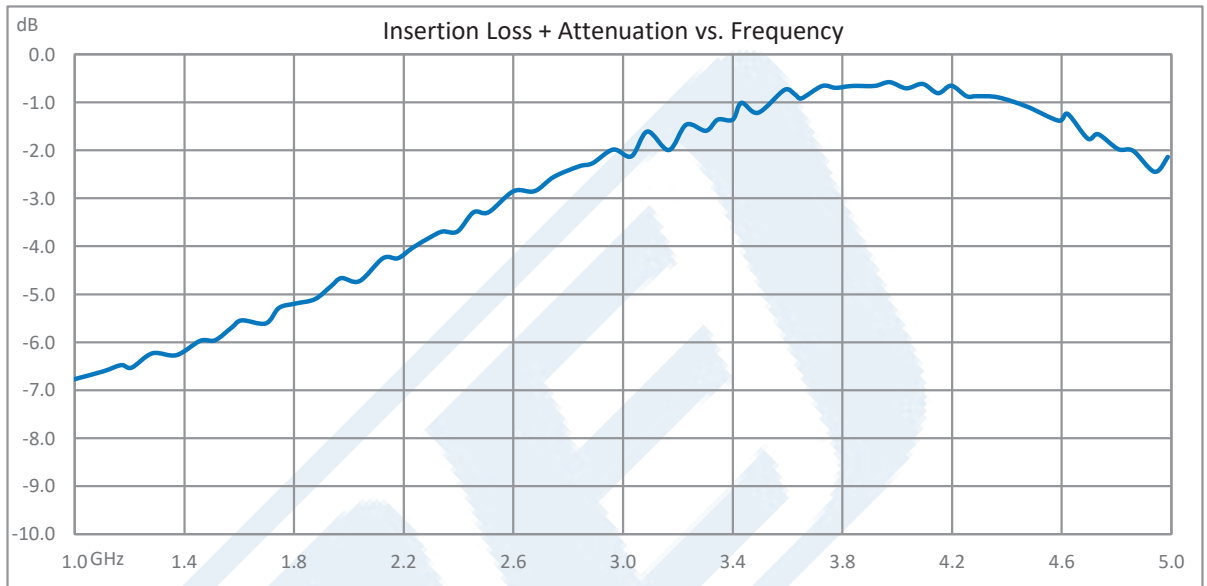
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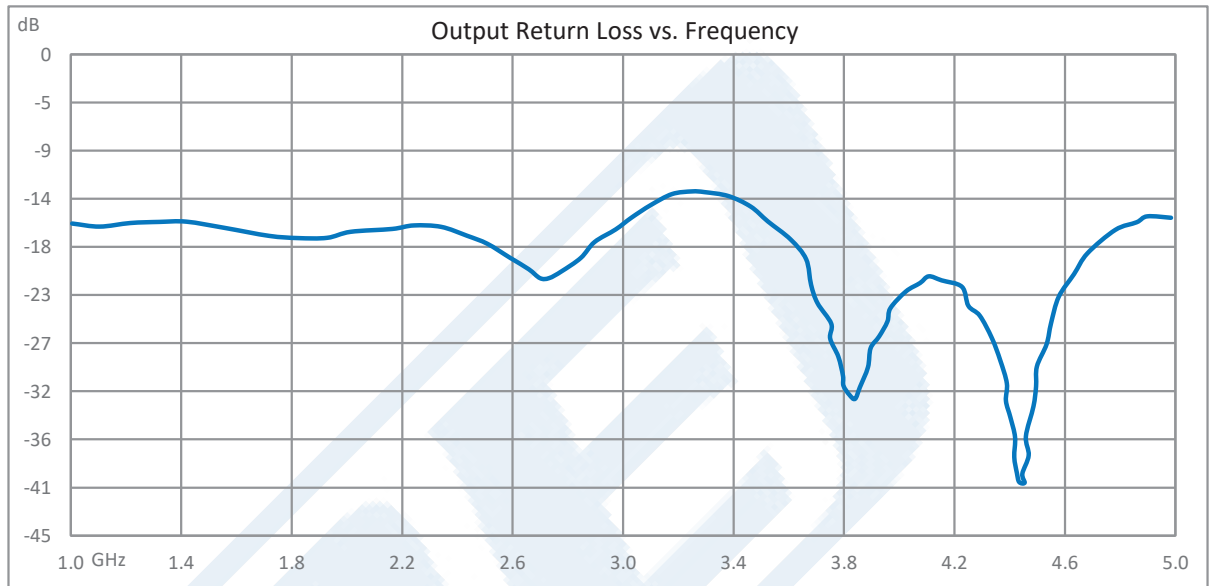
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Negative Slope Equalizer, 1 GHz to 4 GHz, 6 dB Fixed Equalizing Value, 0.6 dB Loss, Max Pin 250 mW, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain 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 PE70A9020](https://www.pasternack.com/Negative-slope-equalizer-1-ghz-to-4-ghz-field-replaceable-sma-pe70a9020-p.aspx)

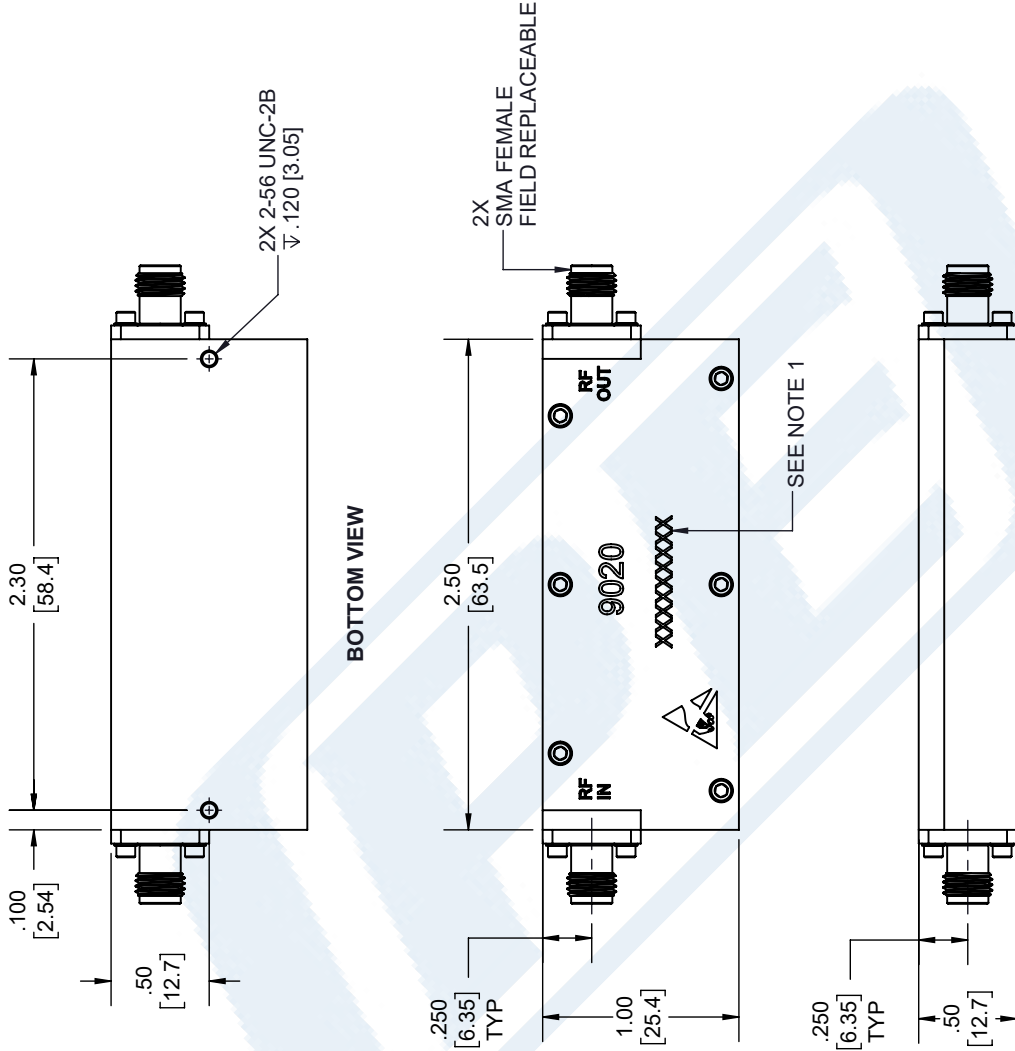
URL: <https://www.pasternack.com/Negative-slope-equalizer-1-ghz-to-4-ghz-field-replaceable-sma-pe70a9020-p.aspx>

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# PE70A9020 CAD Drawing

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



**PE PASTERNAK**  
an INFINITE brand

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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

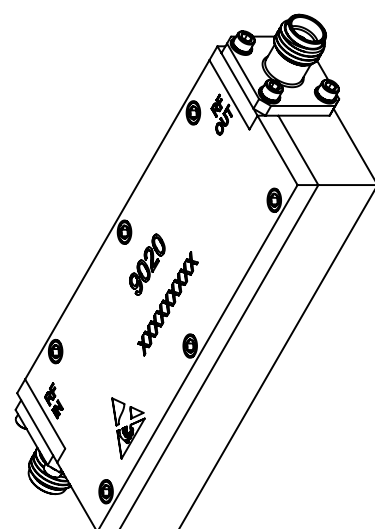
TOLERANCES:

.X = ±.2	[.008]	FRACTIONS	± 1/32
.XX = ±.02	[.51]	ANGLES	± 1°
.XXX = ±.005	[.13]		

CABLE LENGTH (L), TOLERANCES:

L ≤ 12	[305]	= +1 [25] / -0
12 [305] < L ≤ 60	[1524]	= +2 [51] / -0
60 [1524] < L ≤ 120	[3048]	= +4 [102] / -0
120 [3048] < L ≤ 300	[7620]	= +6 [152] / -0
300 [7620] < L		= +5% / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.



NOTES:

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

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