

## Voltage Variable PIN Diode Attenuator, 0 to 60 dB, 4 GHz to 8 GHz, SMA, 15-Pin D-Subminiature Control



### PE70A2001

#### Features

- Analog Controlled 60 dB Pin Diode Attenuator
- 4 GHz to 8 GHz Frequency Range
- Insertion Loss 2.5 dB Max
- VSWR 2.0:1 Max
- Input Power 20 dBm Operating
- Input Power 30 dBm Survival
- Switching Time 500 nsec
- Removable SMA Female Connectors
- 15 Pin Micro D Control Connector

#### Applications

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

#### Description

The PE70A2001 is an Analog Controlled 60 dB Pin Diode Attenuator operating from 4 GHz to 8 GHz, and over a temperature range of -55 Deg C to + 85 Deg C. The Input/Output RF Connectors are Removable SMA Female. The control connector is a 15 Pin Micro D, with a mating connector supplied.

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	4		8	GHz
Attenuation Range	0		60	dB
			2.5	dB
VSWR			2:1	
RF Input Power		+20		dBm
Survival Power Rating			+30	dBm
		±0.5		dB
		±0.87		dB
		±1.5		dB
		±1.6		dB
Switching Time			500	ns
Switching Speed			500	ns
Analog Control		10		dB/Volt
Control Voltage	0		6	Volts
DC Power Supply				
12 to 15 VDC			125	mA
-12 to -15 VDC			50	mA
Attenuation Range	0		60	dB

#### Mechanical Specifications

##### Size

Length

2 in [50.8 mm]

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Width	1.8 in [45.72 mm]
Height	0.5 in [12.7 mm]
Weight	0.142 lbs [64.41 g]
Input Connector	SMA Female
Output Connector	SMA Female
Power and Control	15-Pin D-Subminiatur

### Environmental Specifications

<b>Temperature</b>	
Operating Range	-55 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 Cycle	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:

- Values at +25 °C, sea level  
ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

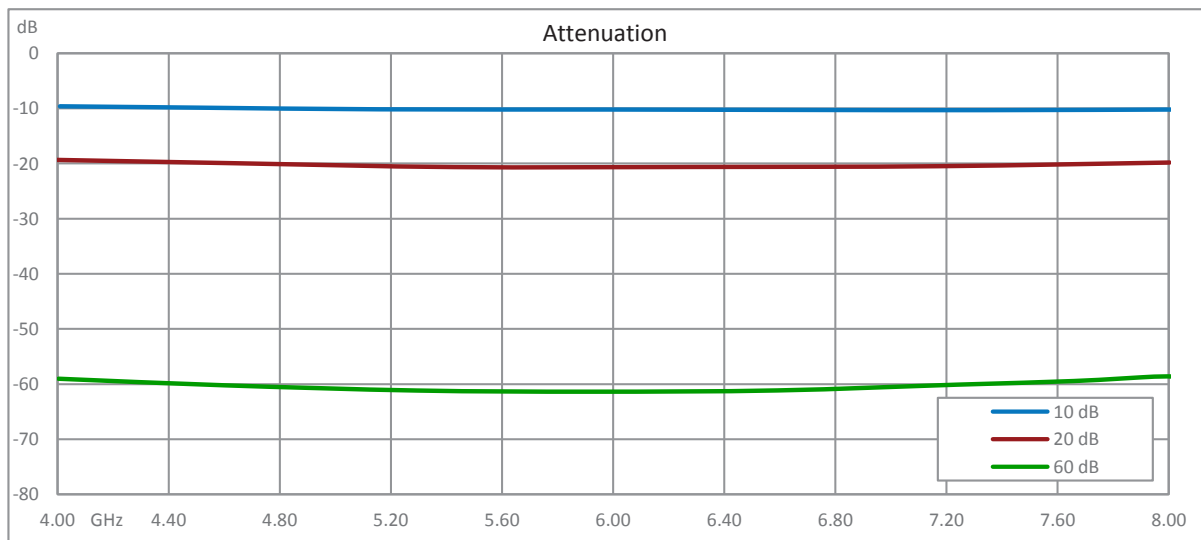
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### Functional Block Diagram

### Performance Data

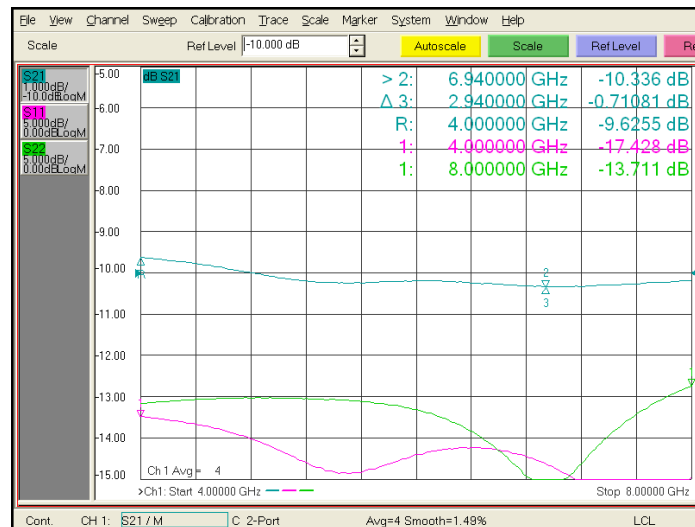


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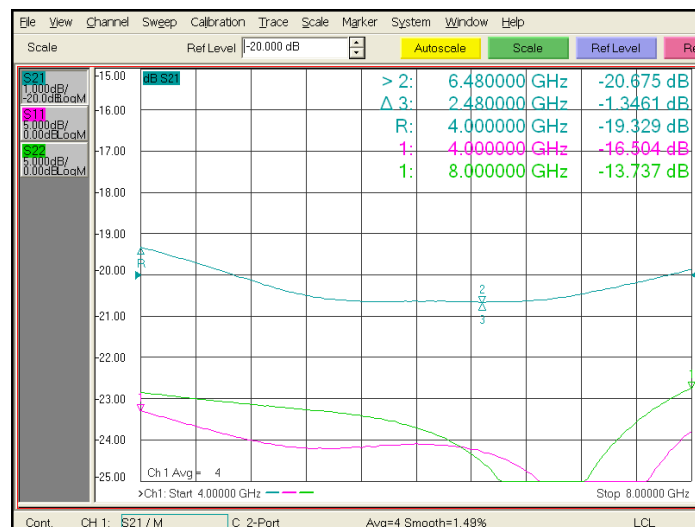


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### 10dB Attenuation



### 20dB Attenuation

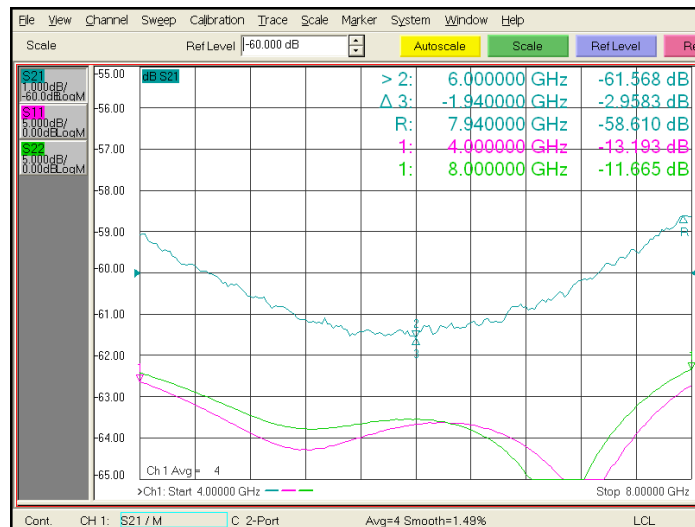


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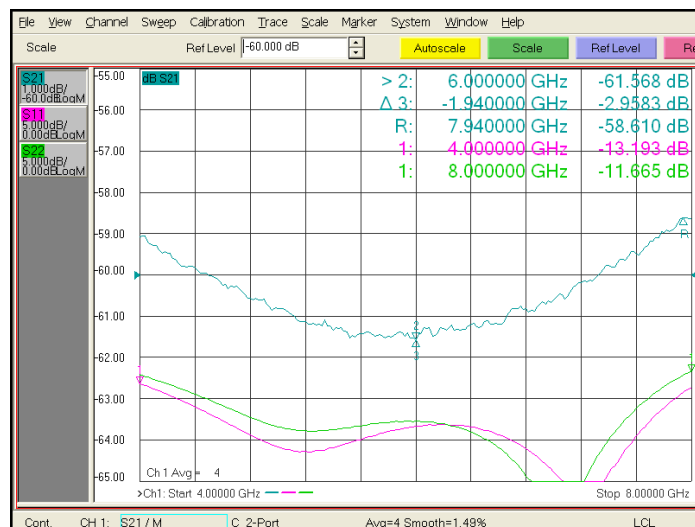


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### 40dB Attenuation



### 60dB Attenuation

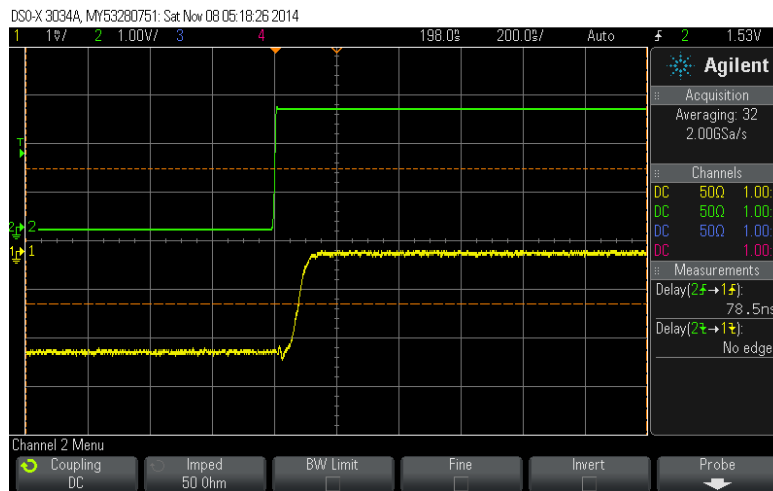


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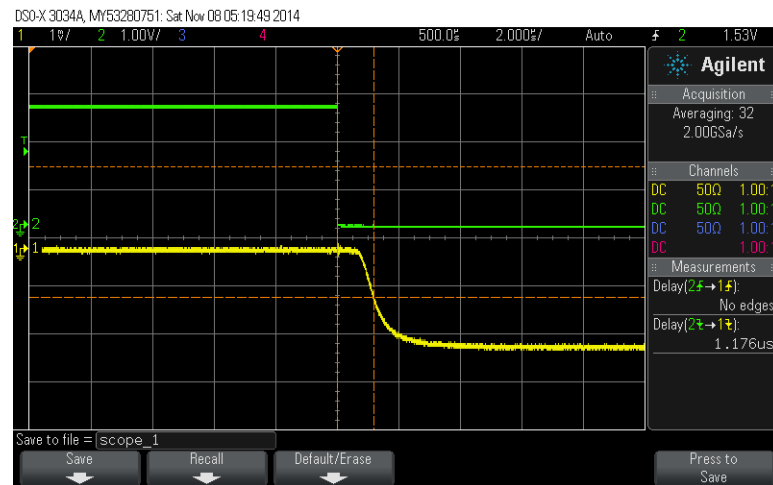


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### Delay 0 to 60 dB



### Delay 60 to 0 dB



**Channel 1 (Yellow):** RF output  
**Channel 2 (Green):** TTL Input from Signal Generator

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Voltage Variable PIN Diode Attenuator, 0 to 60 dB, 4 GHz to 8 GHz, SMA, 15-Pin D-Subminiature Control 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: [Voltage Variable PIN Diode Attenuator, 0 to 60 dB, 4 GHz to 8 GHz, SMA, 15-Pin D-Subminiature Control PE70A2001](https://www.pasternack.com/60db-voltage-variable-attenuator-pin-diode-8-ghz-sma-pe70a2001-p.aspx)

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PE70A2001 CAD Drawing

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