

## 5 Bit TTL Controlled Programmable Attenuator, 30 dB, from 100 MHz to 18 GHz, 1 dB Steps, 2.92mm Female



### PE70A5001

#### 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

#### Description

The PE70A5001 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
Impedance		50		Ohms
Attenuation Range	0		30	dB
Insertion Loss		5		dB
VSWR		2.5:1		
Power Rating		24	24	dBm
Input at 1 dB Compression Point		+20		dBm
Survival Power Average -50 to +85 deg C				
Accuracy of Attenuation 0 dB to 30 dB		±2.5		dB
Step Size		1		dB
Switching Time			1	
Off Time			0.5	us
DC Voltage			15	
DC Current			50	mA
Control Bits		5		Bits
Logic Input "0" (Bit Off)	0		0.8	Volts
Logic Input "1" (Bit On)	2		5	Volts

#### Mechanical Specifications

##### Size

Length

2 in [50.8 mm]

Width

1.8 in [45.72 mm]

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Height	0.5 in [12.7 mm]
Weight	0.15 lbs [68.04 g]
Connector 1	2.92mm Female
Connector 2	2.92mm Female

### Environmental Specifications

<b>Temperature</b>	
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 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.

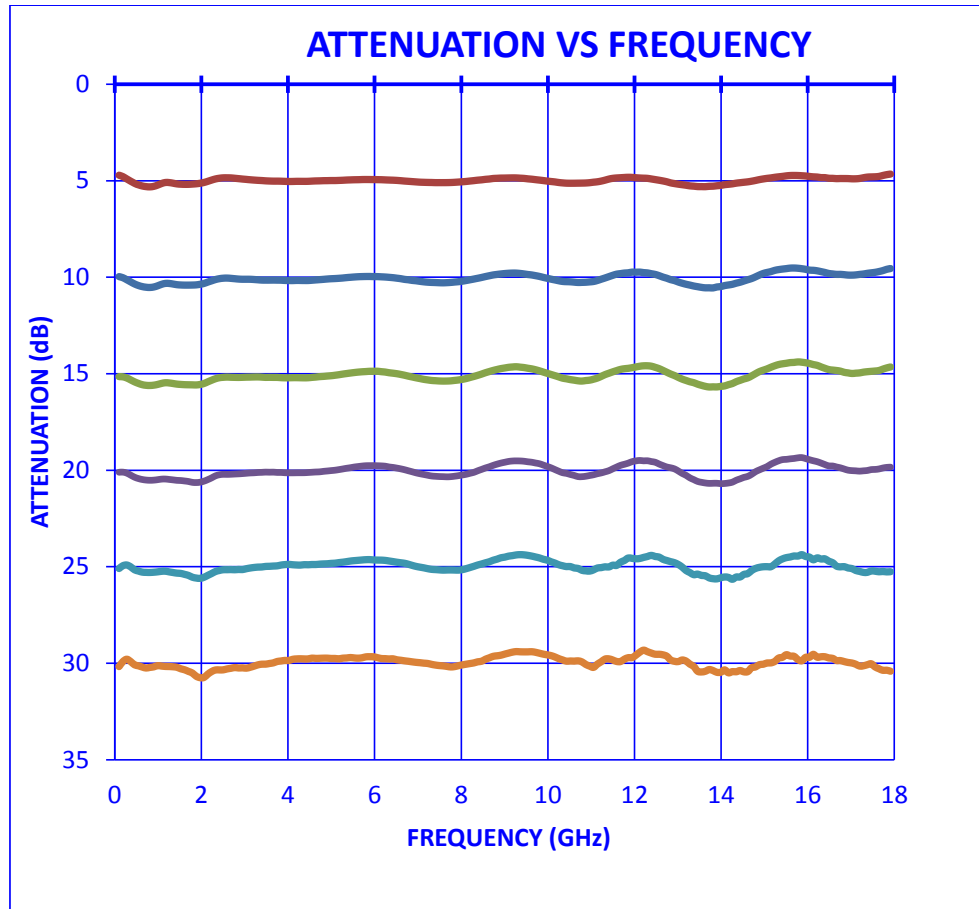
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### Typical Performance Data

#### Attenuation vs. Frequency Plot

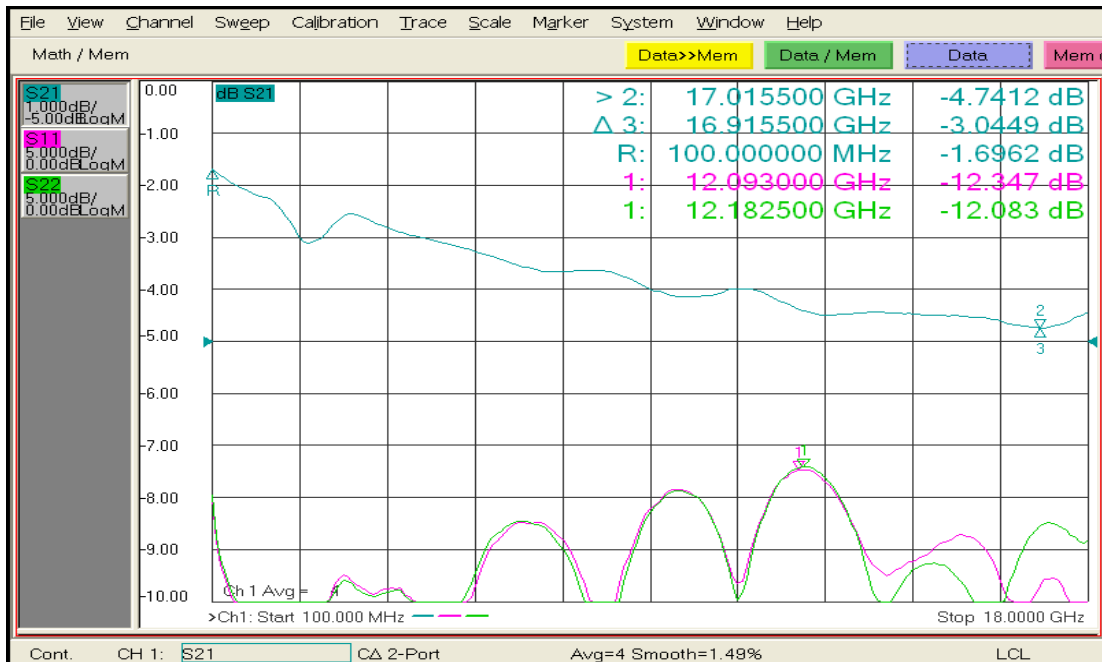


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## Insertion Loss & Return Loss

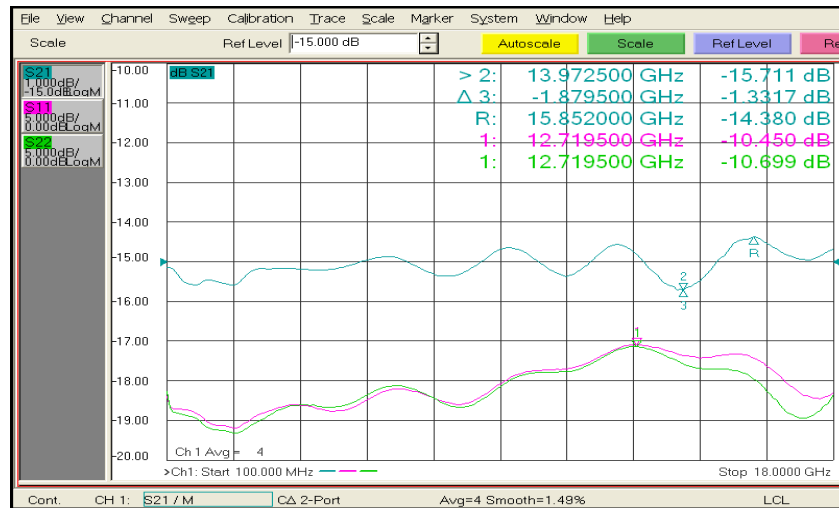


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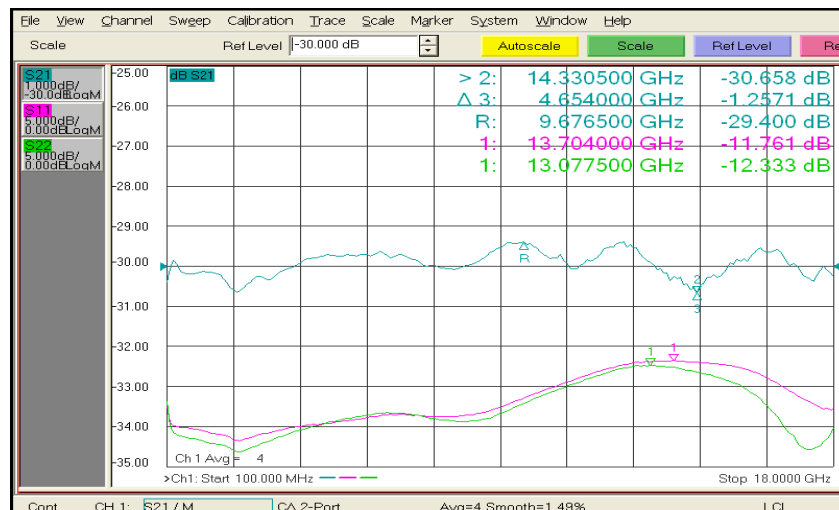
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### -15dB Attenuation



### -30dB Attenuation



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5 Bit TTL Controlled Programmable Attenuator, 30 dB, from 100 MHz to 18 GHz, 1 dB Steps, 2.92mm Female 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: [5 Bit TTL Controlled Programmable Attenuator, 30 dB, from 100 MHz to 18 GHz, 1 dB Steps, 2.92mm Female PE70A5001](#)

URL: <https://www.pasternack.com/30db-programmable-2.92mm-female-2.92mm-female-0-watts-attenuator-pe70a5001-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

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