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30 dB With 10 Bit Programmable TTL Controlled Attenuator, 2.4mm Female To 2.4mm Female, 0.03 dB Steps From 18 GHz To 40 GHz

TECHNICAL DATA SHEET PE70A6001

The PE70A6001 is 10 Bit Programmable 30 dB Pin Diode Attenuator with Step Resolution as Low as 0.03 dB over the Operating Frequency Range from 18 GHz to 40 GHz. The PE70A6001 is offered in a slim line housing measuring only 0.5" Height. The RF Input/Output Connectors are 2.4mm Female. Along with a 15 Pin Micro-D Female Control Socket. The unit is shipped with a Micro-D Mating Connector.

Features

- 10 Bit Programmable 30 dB Attenuator
- 18 GHz to 40 GHz Frequency Range
- 30 dB Attenuation Range
- Step Resolution of 0.03 dB
- +10 dBm typ P1dB
- Insertion Loss 6 dB typ
- VSWR 2.5:1 Max
- RF Connectors are 2.4mm Female
- 15 Pin Micro-D Female Connector

Applications

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

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		40	GHz
Mean Attenuation Range	0		30	dB
Input VSWR			2.5:1	
Power Rating			+24	dBm
Input at 1 dB Compression Point		+15		dBm
Survival Power Average			+24	dBm
from -65 to +25 deg C				
Attenuation Flatness				
@ 30 dB		±1.5		dB
Accuracy of Attenuation				dB
0 dB to 30 dB		±2		dB
Step Size	0.03			dB
Switching Time				
On Time			1	us
Off Time			0.5	us
DC Power Supply			15	Volts
DC Current			100	mA
Logic Input				

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 30 dB With 10 Bit Programmable TTL Controlled Attenuator, 2.4mm Female To 2.4mm Female, 0.03 dB Steps From 18 GHz To 40 GHz PE70A6001

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
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Logic “0” (Bit Off) @ 0µA	-0.3	0.8	Volts
Logic “1” (Bit On) @ 0µA	2	5	Volts

Mechanical Specifications

Size

Length	2 in [50.8 mm]
Width	1.8 in [45.72 mm]
Height	0.5 in [12.7 mm]
Weight	0.141 lbs [63.96 g]
Connector 1	2.4mm Female
Connector 2	2.4mm Female

Environmental Specifications

Temperature

Operating Range	-40 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 Cycling	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:

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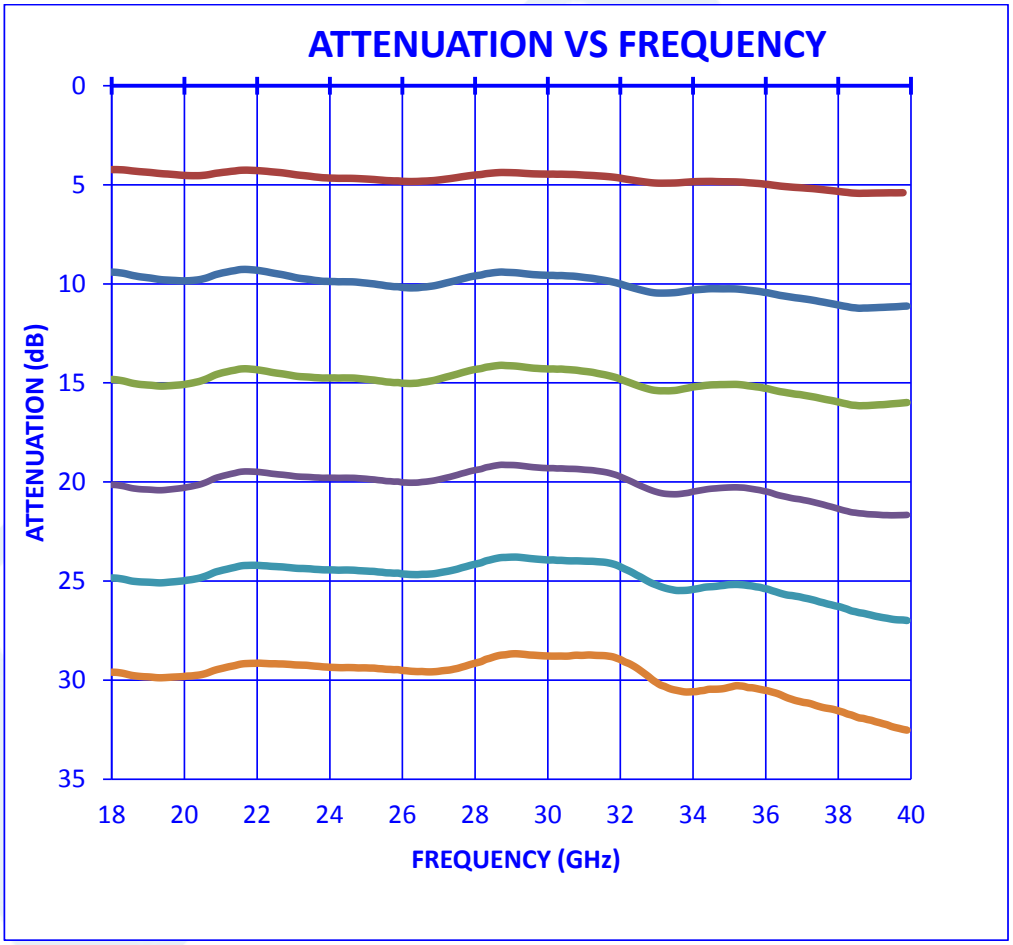
Performance Data

Attenuation vs. Frequency Plot



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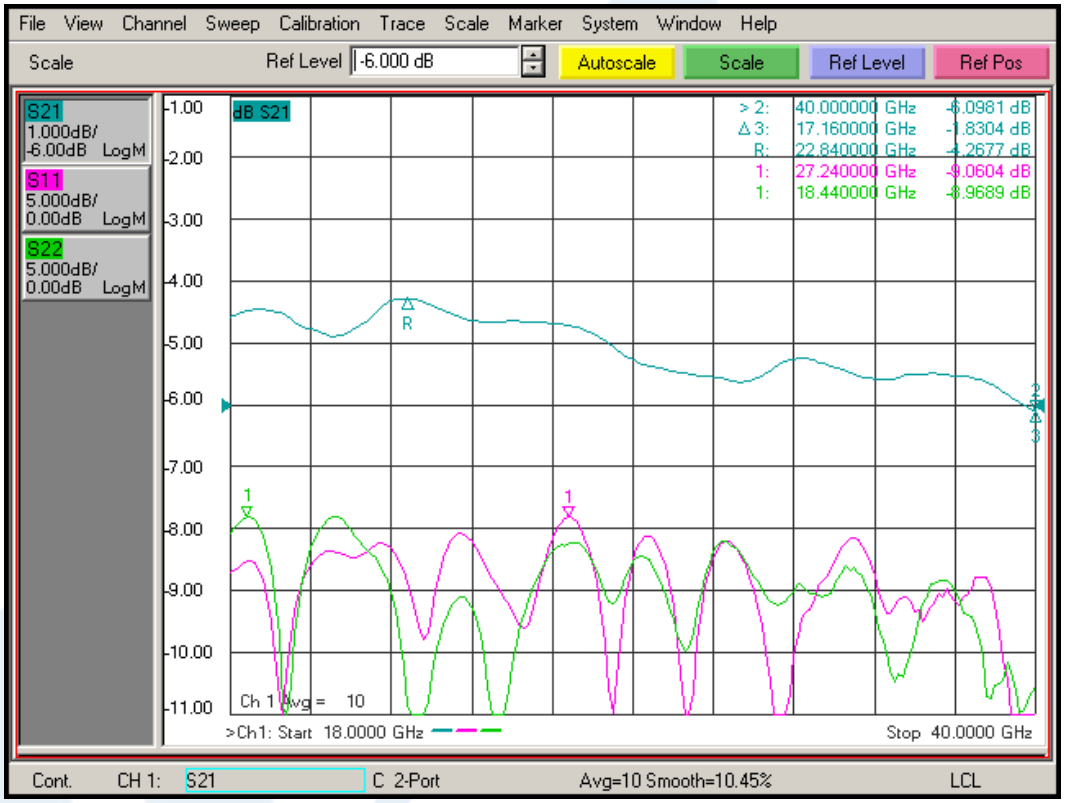
Insertion Loss & Return Loss



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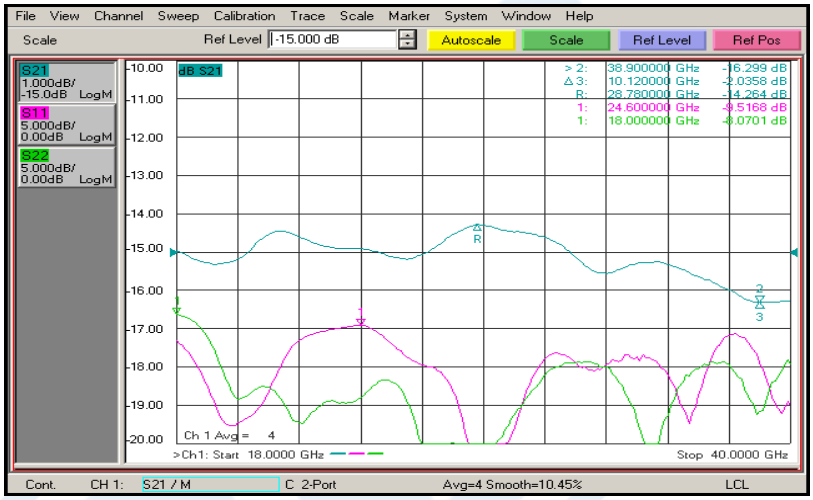
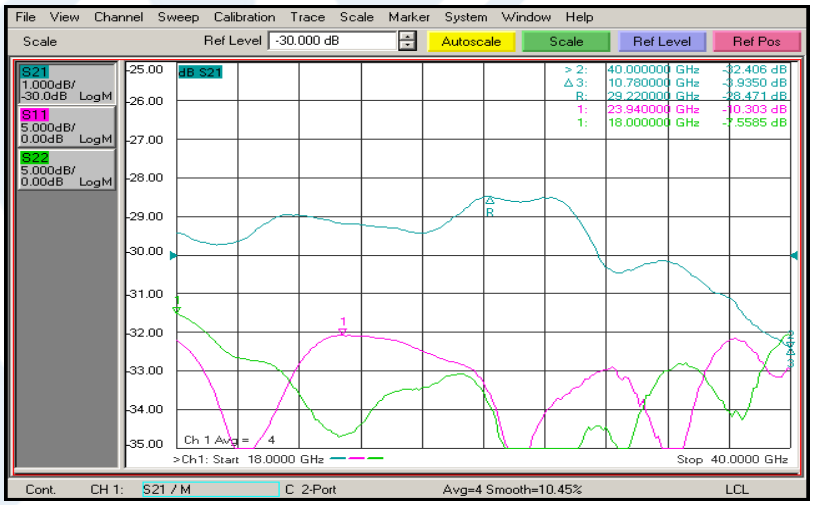
-15dB Attenuation



-30dB Attenuation



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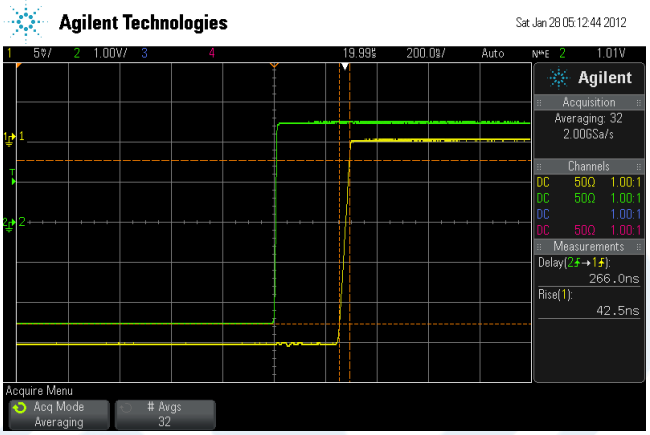
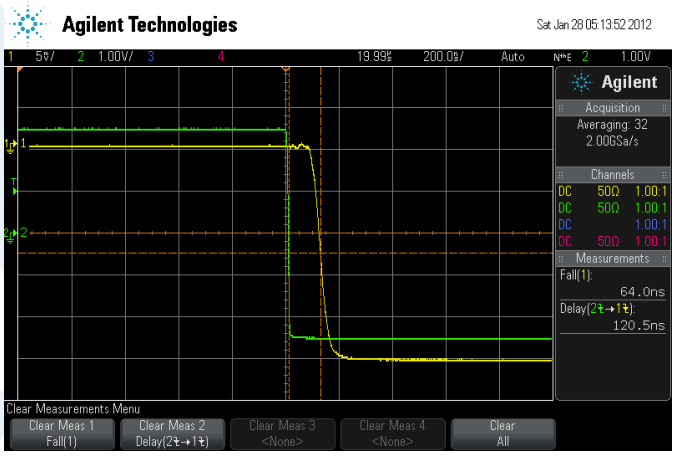
Delay On
Measured with a Tunnel Diode @ 30GHz
Input Power @ -5dBm



Channel 1 (Yellow): Tunnel Diode output
Channel 2 (Green): TTL Input from Signal Generator

Delay Off
Measured with a Tunnel Diode @ 30GHz
Input Power @ -5dBm



Channel 1 (Yellow): Tunnel Diode output
Channel 2 (Green): TTL Input from Signal Generator

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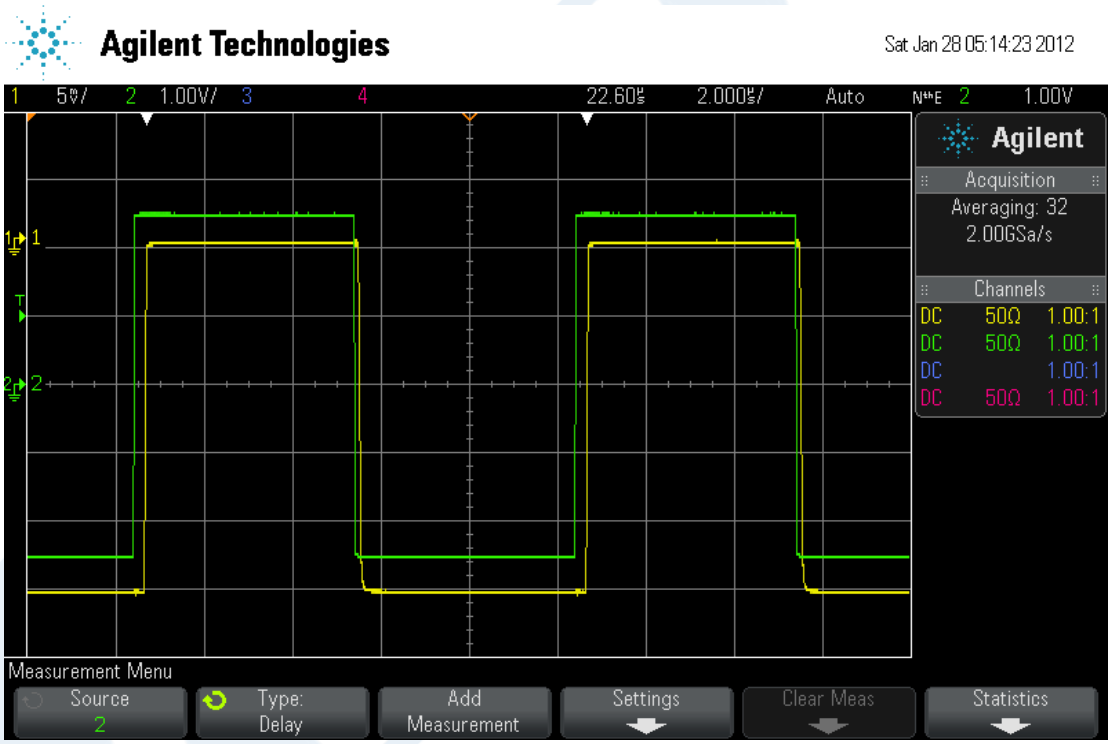
Full Pulse
Measured with a Tunnel Diode @ 30GHz
Input Power @ -5dBm



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URL: https://www.pasternack.com/30db-programmable-2.4mm-female-2.4mm-female-0-watts-attenuator-pe70a6001-p.aspx

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