



0 to 60 dB Voltage Variable Attenuator, PIN Diode, 500 MHz To 18 GHz, Rated To 0.1 Watts, SMA

TECHNICAL DATA SHEET

PE70A2900

The PE70A2900 is an Broadband Analog Controlled 60 dB Pin Diode Attenuator/Modulator operating from 0.5 GHz to 18 GHz with a rise and fall time of 3 us maximum, a VSWR of 2.2:1 maximum, and an over temperature range of -55 Deg C to + 95 Deg C. The Input/Output RF Connectors are Field Replaceable SMA Female. The control is an analog voltage that is applied to a CTL pin.

Features

- Analog Controlled 60 dB Pin Diode Attenuator
- 0.5 GHz to 18 GHz Frequency Range
- Insertion Loss 5.2 dB Max
- VSWR 2.2:1 Max
- Input Power 20 dBm CW Max Operating
- Input Power 30 dBm CW Max Survival
- SMA Female Replacable Connectors

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	0.5		18	GHz
Mean Attenuation Range	0		60	dB
Insertion Loss				
0.5 to 12		3.5	4.5	dB
12 to 18			5.2	dB
VSWR		2:1	2.2:1	
Power Rating			+20	dBm
Power Rating (0.3 GHz or BELOW)			+10	dBm
Survival Power Rating			+30	dBm
Survival Power Rating (0.3 GHz or BELOW)			+27	dBm
Attenuation Flatness				
0 dB to 30 dB		±0	±2.5	dB
30 dB to 40 dB		±3	±3.5	dB
40 dB to 50 dB		±4	±4.5	dB
50 dB to 60 dB		±5	±5.5	dB
Accuracy of Attenuation				
0 dB to 10 dB			±2	dB
10 dB to 20 dB			±1	dB
20 dB to 40 dB			±1.5	dB
40 dB to 60 dB			±2	dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [0 to 60 dB Voltage Variable Attenuator, PIN Diode, 500 MHz To 18 GHz, Rated To 0.1 Watts, SMA PE70A2900](#)



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Switching Time	1.8	3	μs
Analog Control	10		dB/Volt
DC Power Supply			
to 12 VDC	210	250	mA
to -12 VDC	30	50	mA

Mechanical Specifications

Size

Length	2 in [50.8 mm]
Width	1.8 in [45.72 mm]
Height	0.5 in [12.7 mm]
Weight	0.2 lbs [90.72 g]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-55 to +95 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 107D COND. A

Compliance Certifications (visit www.Pasternack.com for current document)

Not RoHS Compliant

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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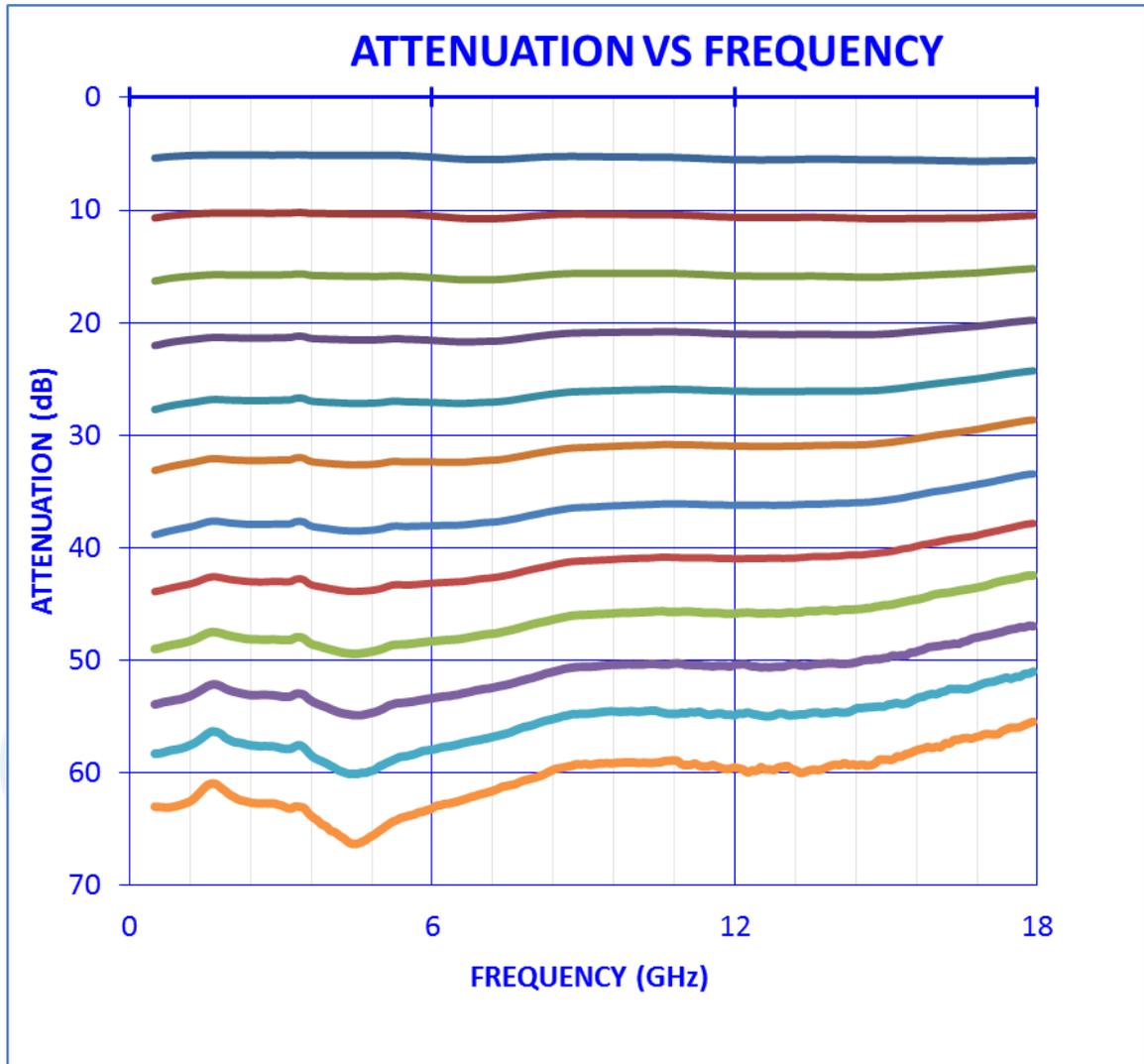


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Performance Data



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Insertion Loss and Return Loss



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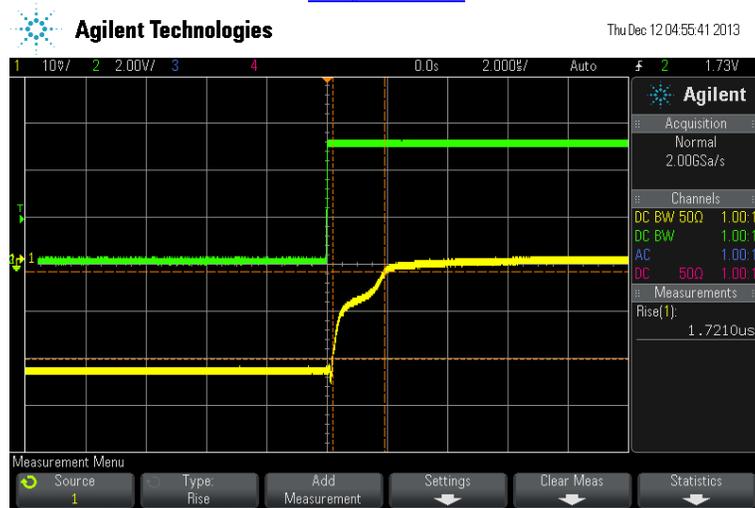


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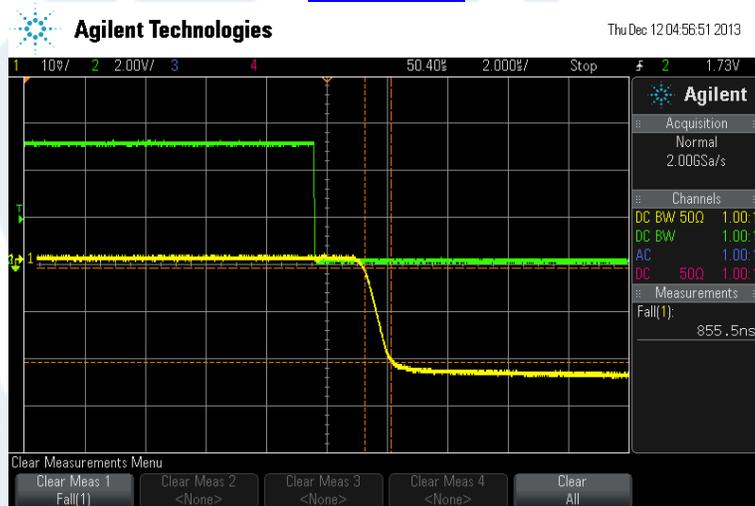
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Delay 0 to 60 dB



Delay 60 to 0 dB



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

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0 to 60 dB Voltage Variable Attenuator, PIN Diode, 500 MHz To 18 GHz, Rated To 0.1 Watts, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

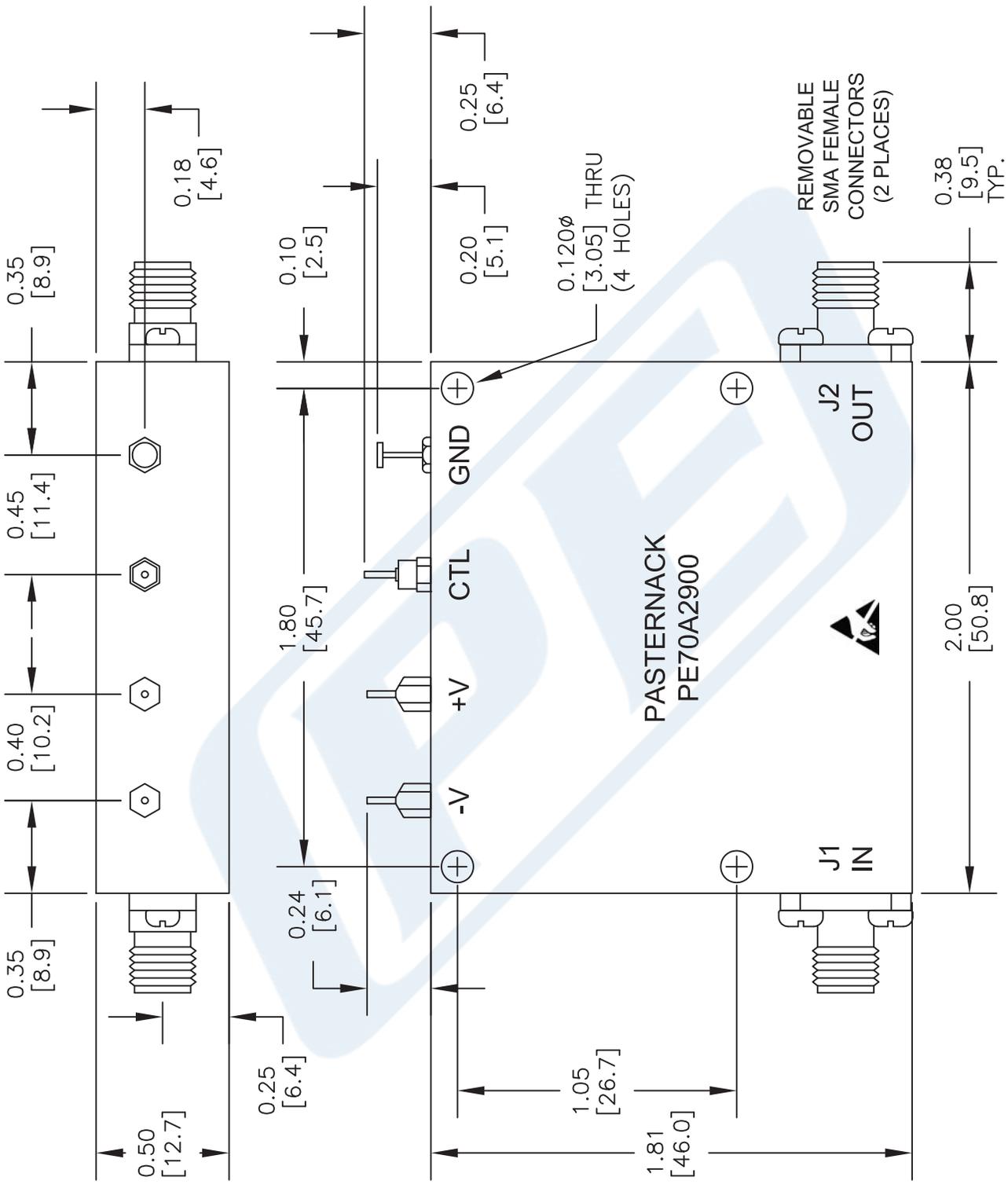
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

PE70A2900 CAD Drawing

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To 18 GHz, Rated To 0.1 Watts, SMA



NOTES:
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
 3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE
PE70A2900

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FSCM NO. 53919

CAD FILE 052115 SCALE N/A SIZE A 2233