



## 0 to 60 dB Voltage Variable Attenuator, PIN Diode, 2 GHz To 4 GHz, SMA

### TECHNICAL DATA SHEET

PE70A2000

The PE70A2000 is an Analog Controlled 60 dB Pin Diode Attenuator operating from 2 GHz to 4 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.

#### Features

- Analog Controlled 60 dB Pin Diode Attenuator
- 2 GHz to 4 GHz Frequency Range
- Insertion Loss 2.0 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

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	2		4	GHz
Mean Attenuation Range	0		60	dB
Insertion Loss			2	dB
VSWR			2:1	
Power Rating		+20		dBm
Survival Power Rating			+30	dBm
Attenuation Flatness				
10 dB		±0.45		dB
20 dB		±0.8		dB
40 dB		±1.5		dB
60 dB		±1.6		dB
Switching Time			500	ns
Analog Control		10		dB/Volt
DC Power Supply				
12 to 15 VDC			125	mA
-12 to -15 VDC			50	mA

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, 2 GHz To 4 GHz, SMA PE70A2000](#)



0 to 60 dB Voltage Variable Attenuator, PIN  
Diode, 2 GHz To 4 GHz, SMA

TECHNICAL DATA SHEET

PE70A2000

**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 +85 deg C
Storage Range	-65 to +125 deg C

**Environment**

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

**Compliance Certifications** (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

Not RoHS Compliant

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, 2 GHz To 4 GHz, SMA PE70A2000](#)



0 to 60 dB Voltage Variable Attenuator, PIN  
Diode, 2 GHz To 4 GHz, SMA

TECHNICAL DATA SHEET

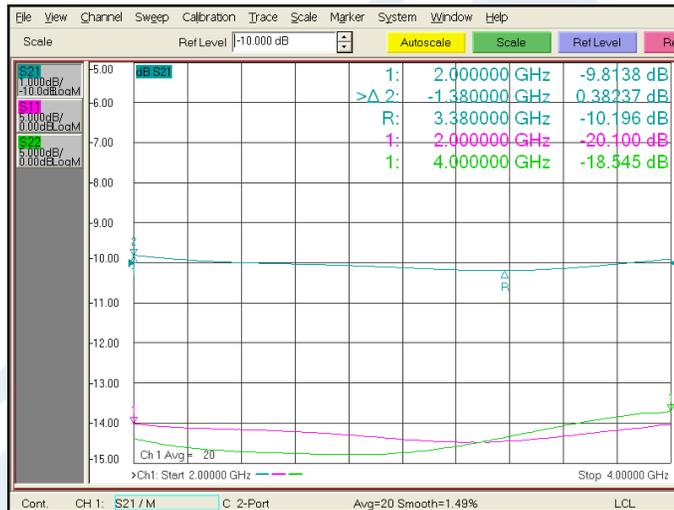
PE70A2000

**Plotted and Other Data**

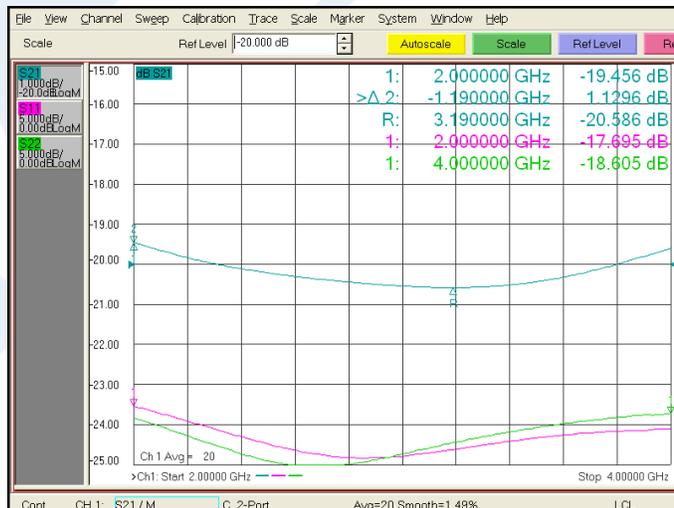
Notes:

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

10dB Attenuation



20dB Attenuation



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, 2 GHz To 4 GHz, SMA PE70A2000](#)



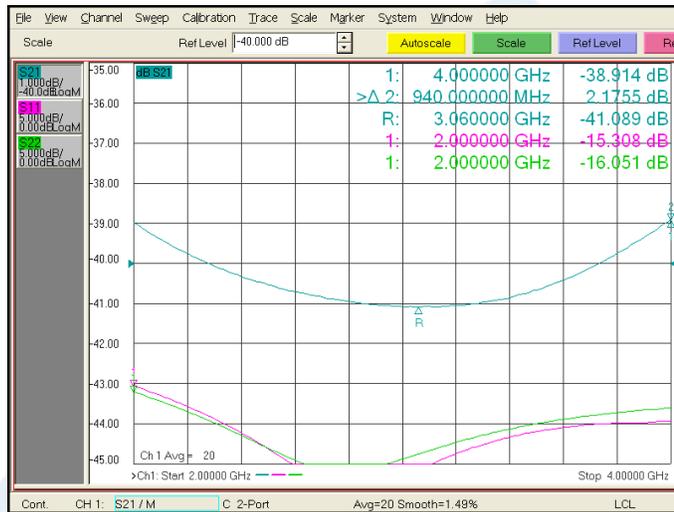


0 to 60 dB Voltage Variable Attenuator, PIN  
Diode, 2 GHz To 4 GHz, SMA

TECHNICAL DATA SHEET

PE70A2000

**40dB Attenuation**



**60dB Attenuation**



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, 2 GHz To 4 GHz, SMA PE70A2000](#)



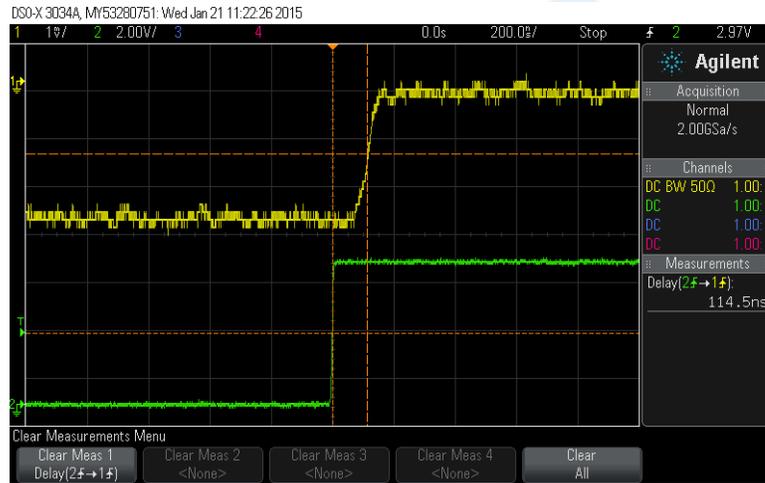


0 to 60 dB Voltage Variable Attenuator, PIN  
Diode, 2 GHz To 4 GHz, SMA

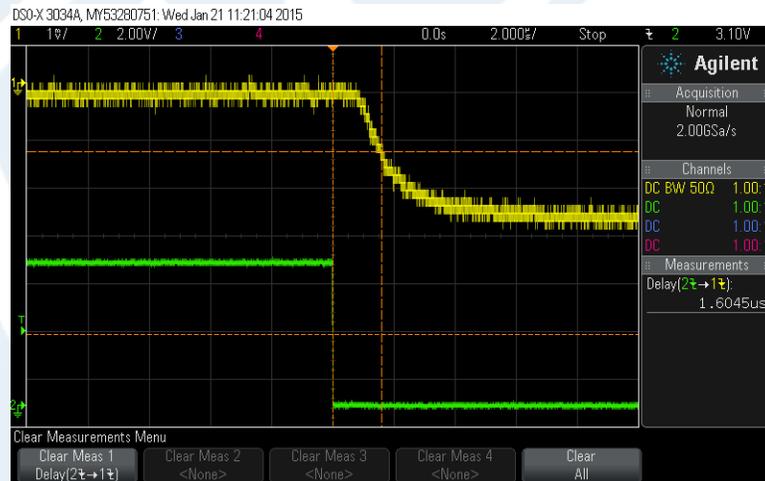
TECHNICAL DATA SHEET

PE70A2000

Delay 0 to 60 dB



Delay 60 to 0 dB



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

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, 2 GHz To 4 GHz, SMA PE70A2000](#)





## 0 to 60 dB Voltage Variable Attenuator, PIN Diode, 2 GHz To 4 GHz, SMA

### TECHNICAL DATA SHEET

PE70A2000

0 to 60 dB Voltage Variable Attenuator, PIN Diode, 2 GHz To 4 GHz, 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.

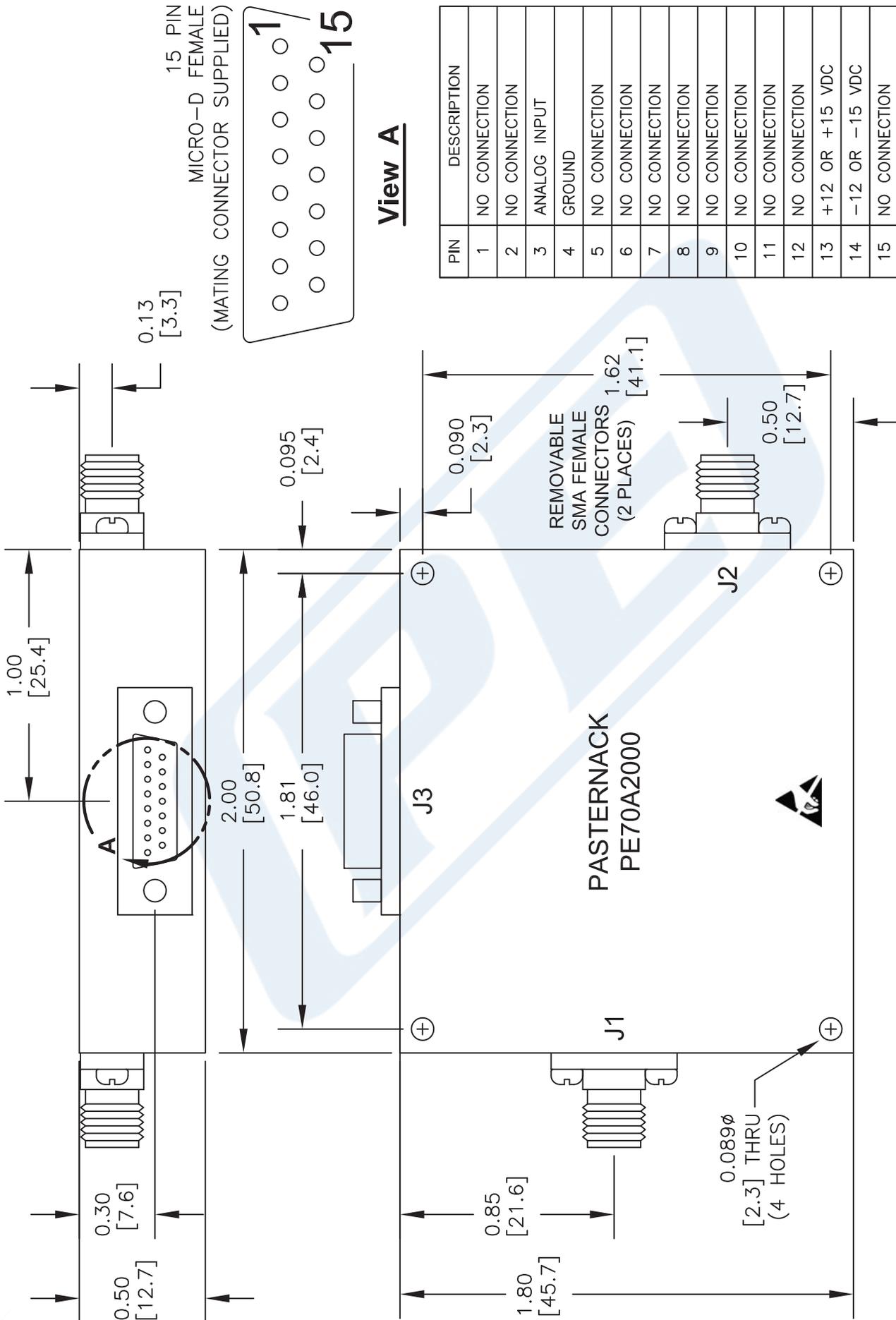
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [0 to 60 dB Voltage Variable Attenuator, PIN Diode, 2 GHz To 4 GHz, SMA PE70A2000](http://www.pasternack.com/60db-voltage-variable-attenuator-pin-diode-4-ghz-sma-pe70a2000-p.aspx)

URL: <http://www.pasternack.com/60db-voltage-variable-attenuator-pin-diode-4-ghz-sma-pe70a2000-p.aspx>

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.

# PE70A2000 CAD Drawing

0 to 60 dB Voltage Variable Attenuator, PIN Diode, 2 GHz To 4 GHz, SMA



**NOTES:**

- UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
- ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
- DIMENSIONS ARE IN INCHES [mm].

DWG TITLE  
**PE70A2000**

FSCM NO. 53919

CAD FILE 051815

SCALE N/A

SIZE A

2233

**PE PASTERNAK**  
 THE ENGINEER'S RF SOURCE  
 Pasternack Enterprises, Inc.  
 P.O. Box 16759 | Irvine | CA | 92623  
 Phone: (949) 261-1920 | Fax: (949) 261-7451  
 Website: www.pasternack.com | E-Mail: sales@pasternack.com