



60 dB With 8 Bit Programmable TTL Controlled Attenuator, SMA Female To SMA Female, 0.25 dB Steps From 30 MHz To 6 GHz

TECHNICAL DATA SHEET

PE70A5000

The PE70A5000 is a 8 Bit Programmable 60 dB Pin Diode Attenuator with Step Resolution as Low as 0.25 dB over the Operating Frequency Range from 0.03 GHz to 6 GHz. The RF Input/Output Connectors are SMA Female. Along with a 15 Pin Micro-D Female Control Socket. The unit is shipped with a Micro-D Mating Connector.

Features

- 8 Bit Programmable 60 dB Pin Diode Attenuator
- 0.03 GHz to 6 GHz Frequency Range
- 60 dB Attenuation Range
- Step Resolution of 0.25 dB
- Insertion Loss 4 dB Max
- RF Connectors are SMA 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	0.03		6	GHz
Mean Attenuation Range	0		60	dB
Insertion Loss			4	dB
Return Loss			-8.5	dB
Input VSWR			2.2:1	
Power Rating		20	+20	dBm
Attenuation Flatness				
@ 10 dB		±1		dB
@ 20 dB		±1.5		dB
@ 40 dB		±3		dB
@ 60 dB		±5		dB
Accuracy of Attenuation				dB
0 dB to 30 dB		±1		dB
30 dB to 50 dB		±1.3		dB
50 dB to 60 dB		±1.5		dB
Step Size	0.25			dB
Switching Time			50	us
DC Power Supply			13.2	Volts
DC Power Supply @ 155 mA		12		Volts
DC Power Supply	10.8		13.2	Volts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [60 dB With 8 Bit Programmable TTL Controlled Attenuator, SMA Female To SMA Female, 0.25 dB Steps From 30 MHz To 6 GHz PE70A5000](#)



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Logic Input			
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	0.147 lbs [66.68 g]
Connector 1	SMA Female
Connector 2	SMA 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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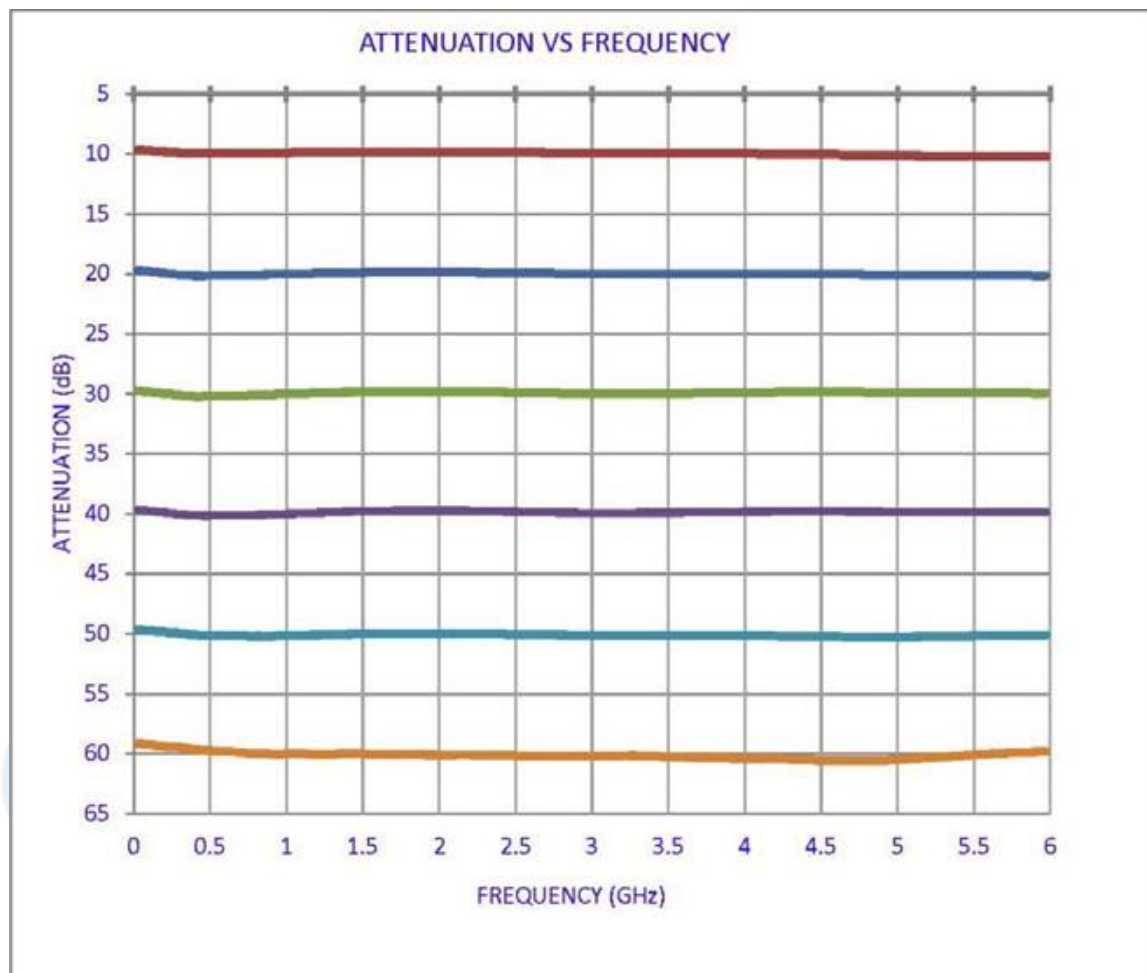


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Performance Data



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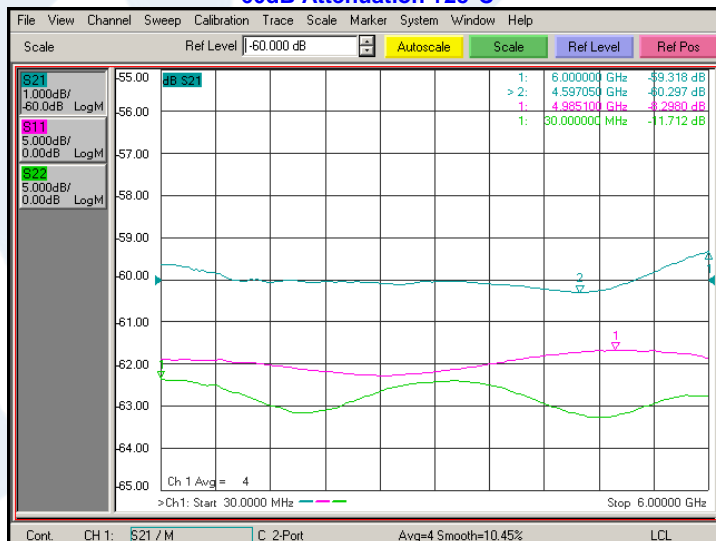
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Insertion Loss and VSWR @ 0dB Attenuation +25°C



60dB Attenuation +25°C



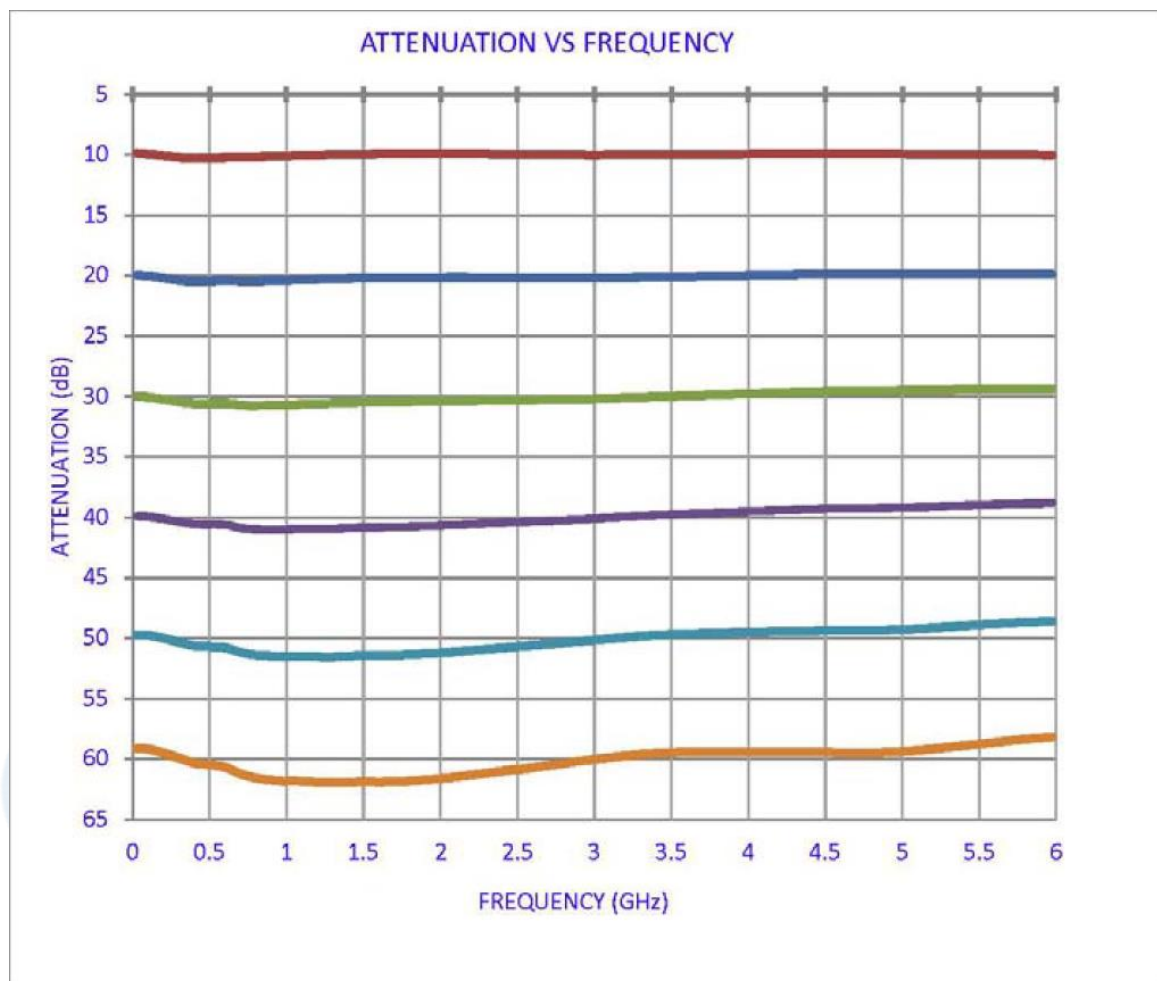
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-40°C @ 5dBm

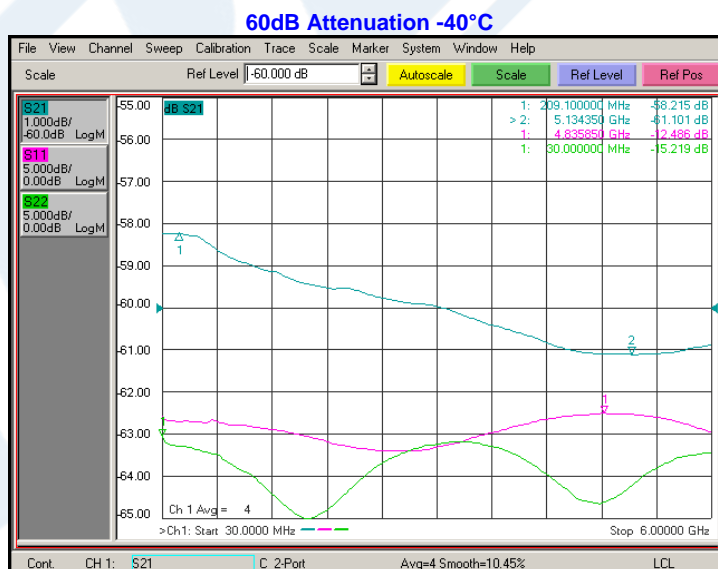
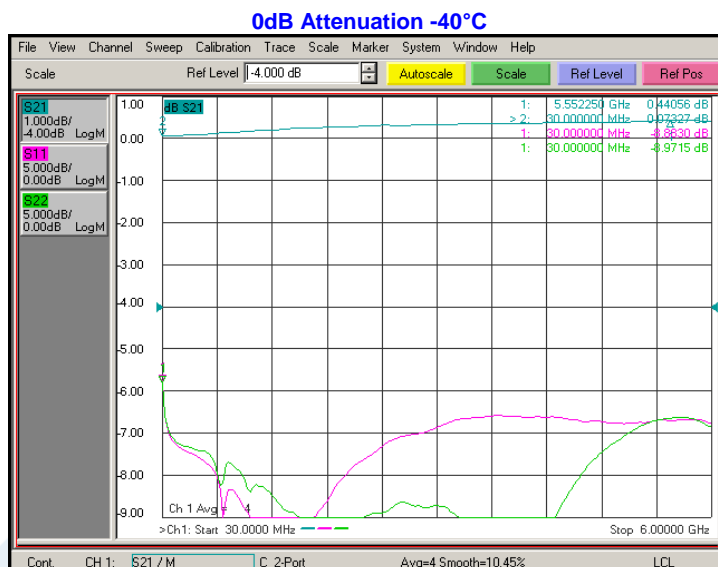
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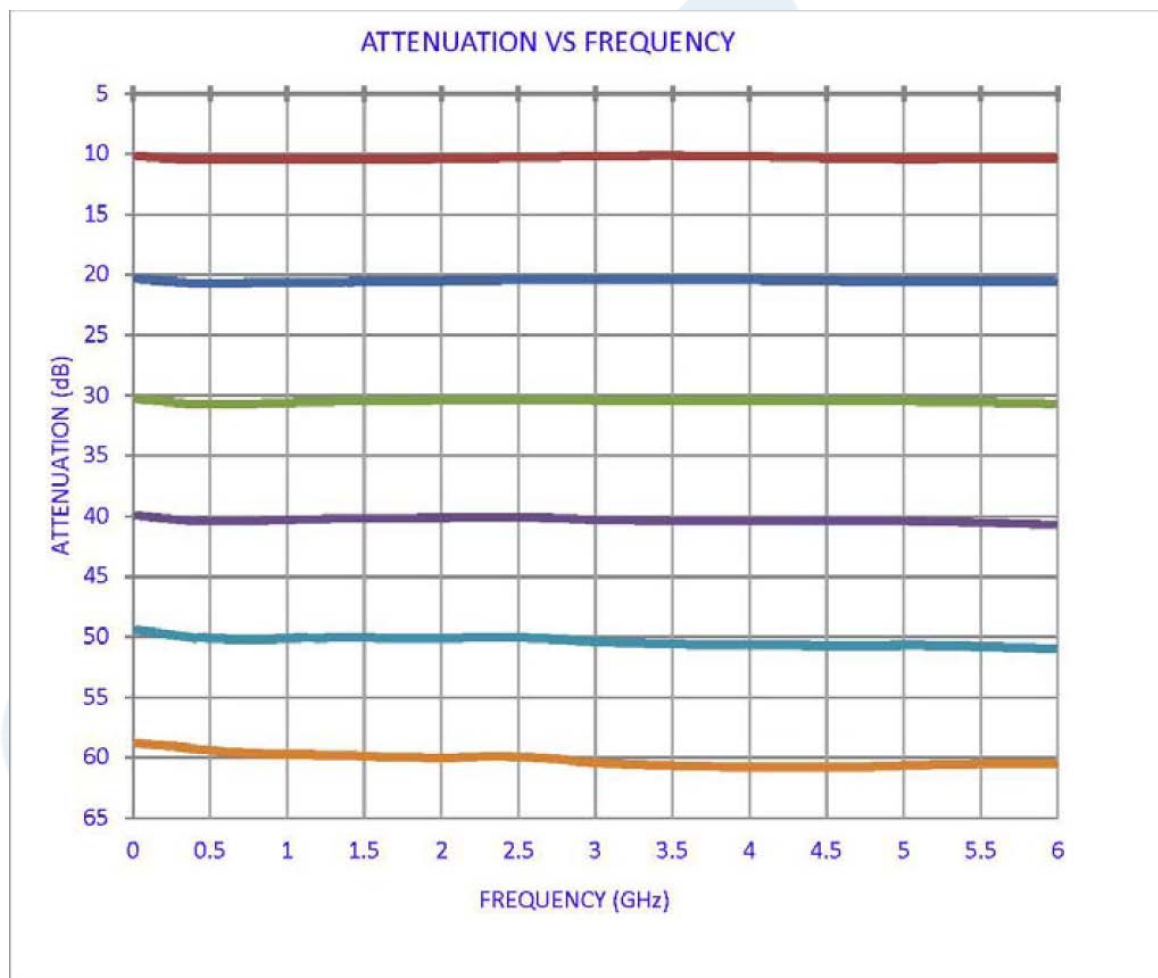


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+85°C @ 5dBm



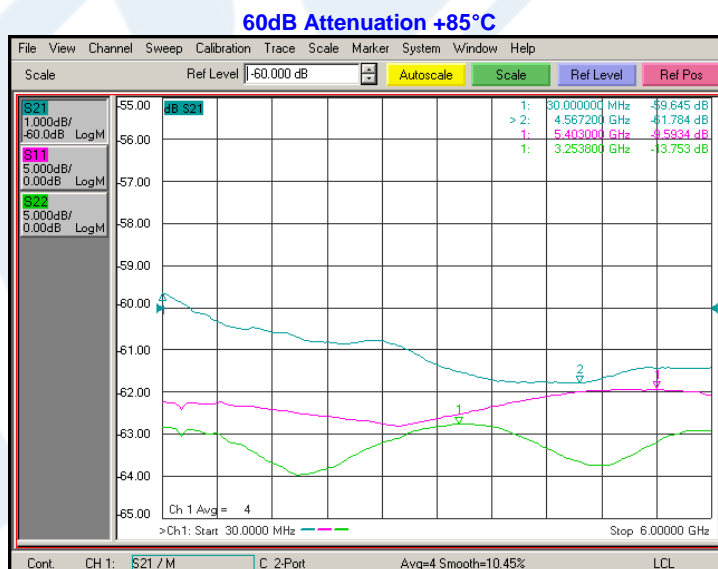
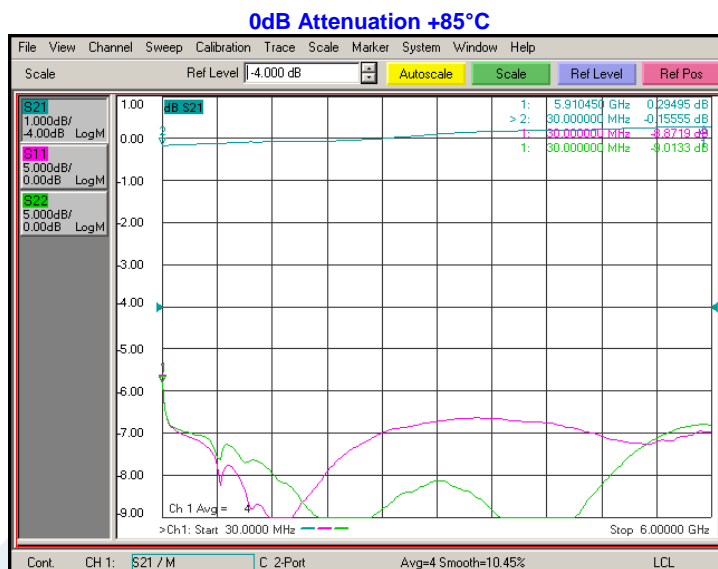
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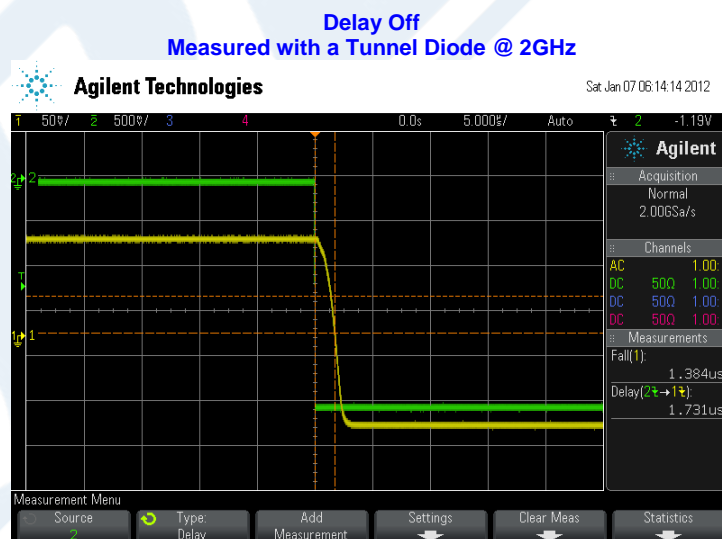
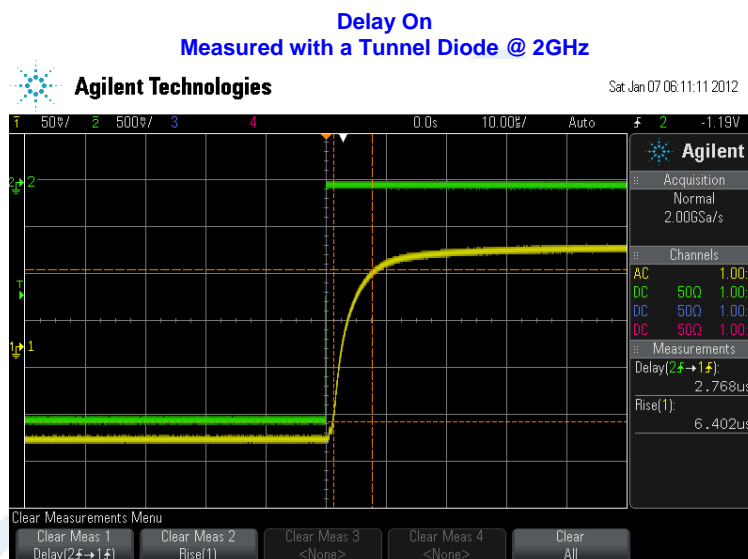
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Channel 1 (Yellow): Tunnel Diode output
Channel 2 (Green): TTL Input from Signal Generator

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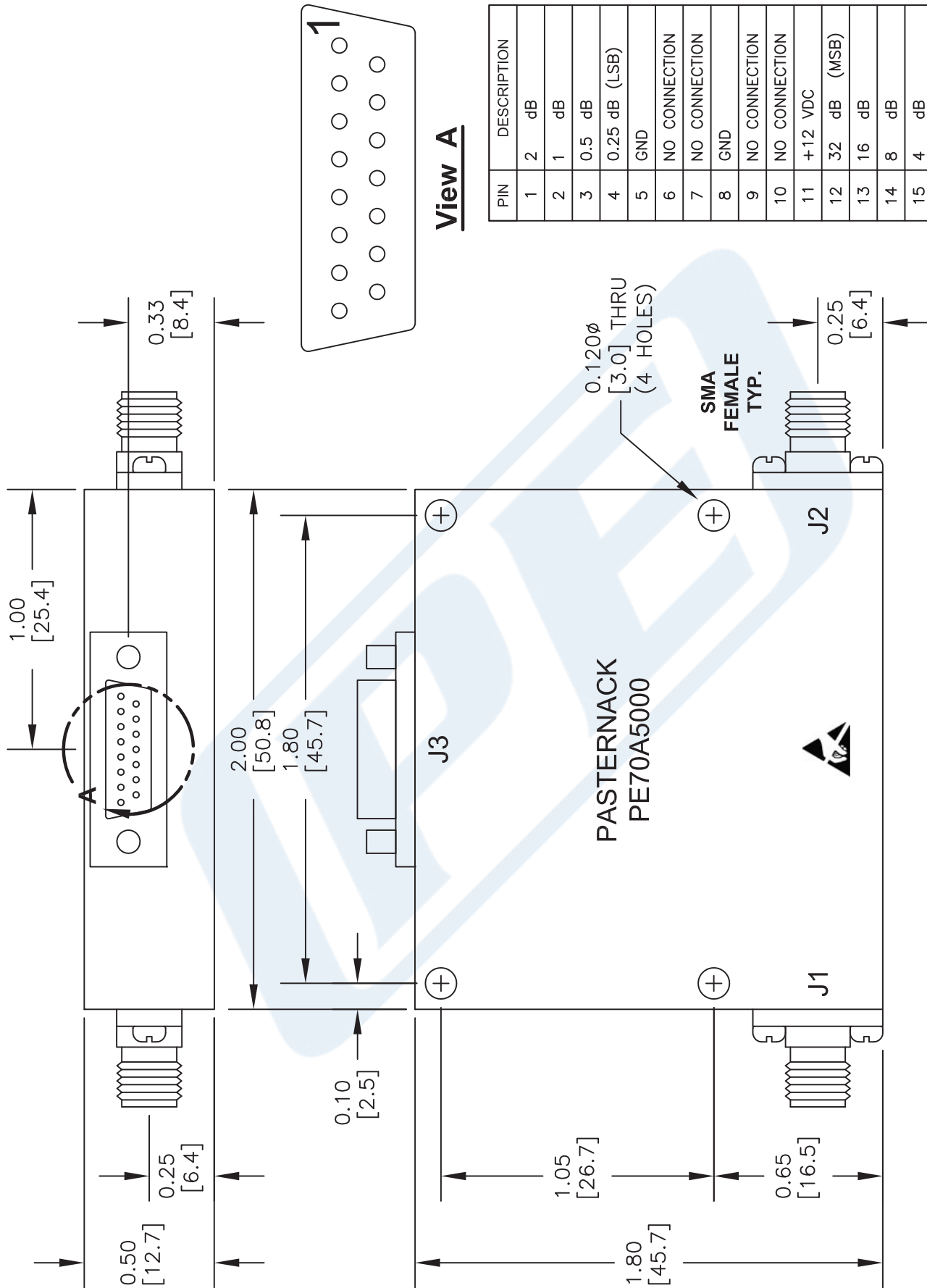
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PE70A5000 CAD Drawing

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To SMA Female, 0.25 dB Steps From 30 MHz To 6 GHz



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
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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

FSCM NO. 53919

CAD FILE 052715

SCALE N/A

SIZE A

2233