PASTERNACK®
THE ENGINEER'S RF SOURCE



63.5 dB Programmable TTL Controlled Attenuator, SMA Female to SMA Female, 0.5 dB Steps From 30 MHz to 3 GHz

TECHNICAL DATA SHEET PE70A5005

The PE70A5005 is a 7 Bit Programmable Attenuator which operates over the frequency range of 30 MHz to 3000 MHz. The 50 ohm design supports TTL control logic and has an attenuation range that covers 0 to 63.5 dB in 0.5 dB steps. Attenuation steps are 0.5, 1, 2, 4, 8, 16, and 32 dB. Insertion loss is 3 dB typical with a maximum operating RF input power +20 dBm. Additional typical performance includes +/- 0.5 dB attenuation accuracy and switching speed of 0.7 microseconds. The DC supply is +5 Vdc @ 50 mA. The compact and rugged package design supports SMA female RF input/output connectors, and a 10 pin male connector socket for DC and TTL controls. A mating DC cable connector plug assembly (model PE3C4220-24) is available in stock as an accessory. The PE70A5005 has an operational termperature range of -40°C to +85°C.

Features

- 7 Bit Programmable Attenutor
- 30 to 3000 MHz Bandwidth
- 0-63.5 dB attenuation
- 0.5 dB Step Size
- 50 Ohms
- Swithing Speed: 0.7 microseconds typ
- Insertion Loss: 4.0 dB max
- Attenuation Accuracy: +/- 0.5 dB typ
- DC Bias: +5 Vdc @ 50 mA
- SMA female connectors

Applications

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

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.03		3	GHz
Mean Attenuation Range	0		63.5	dB
Insertion Loss			4	dB
Input VSWR			1.8:1	
Survival Power Average			+25	dBm
Power Handling Capacity			+20 CW	dBm
Accuracy of Attenuation				
0.5 dB to 7.5 dB		±0.2		dB
8 dB to 63.5 dB		±0.5		dB
Step Size	0.5			dB
Switching Time			1	µs
Logic Input				
Logic "0" (Bit Off)	0			Volts
Logic "1" (Bit On)	5			Volts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 63.5 dB Programmable TTL Controlled Attenuator, SMA Female to SMA Female, 0.5 dB Steps From 30 MHz to 3 GHz PE70A5005

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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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.03 to 0.03	0.03 to 3				GHz
Insertion Loss, Typ	2.5	3.7				dB

Electrical Specification Notes:
0.5, 1, 2, 4, 8, 16, and 32 dB bit Steps

Mechanical Specifications

Size

Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-65 to +150 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

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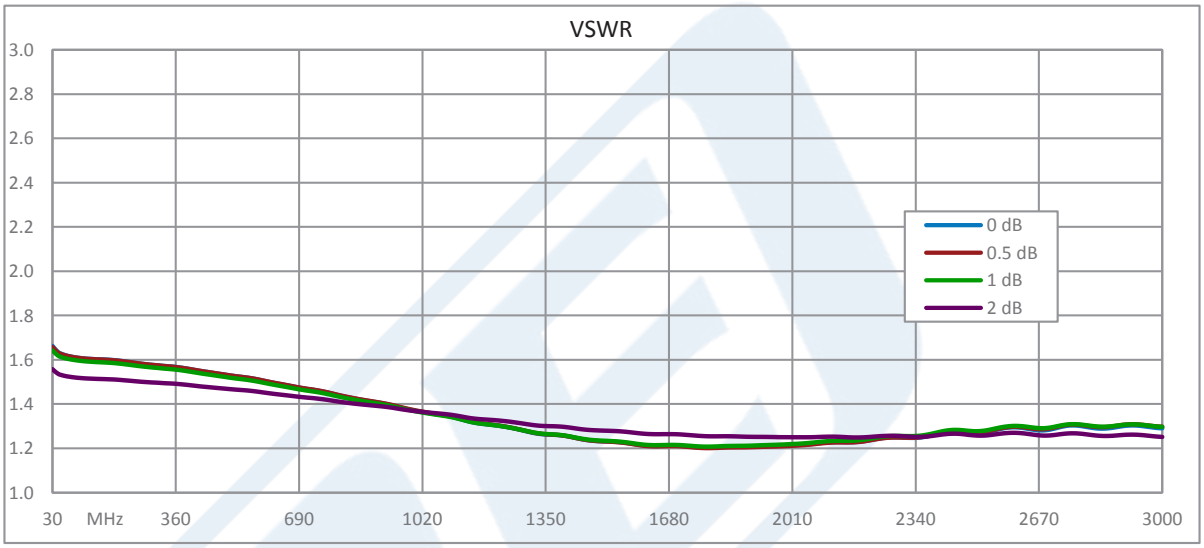
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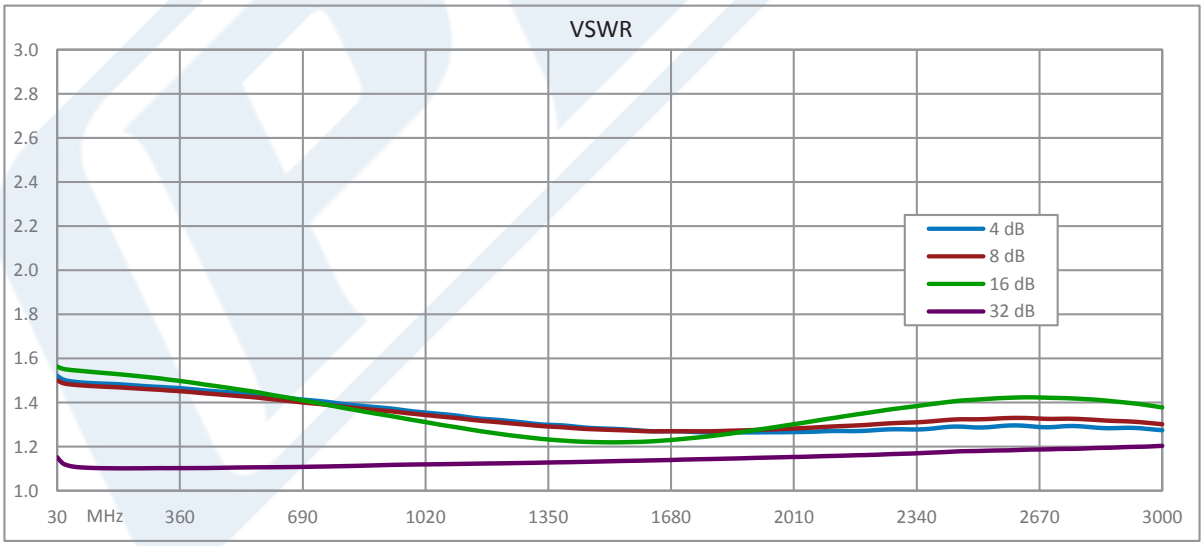


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Performance Data





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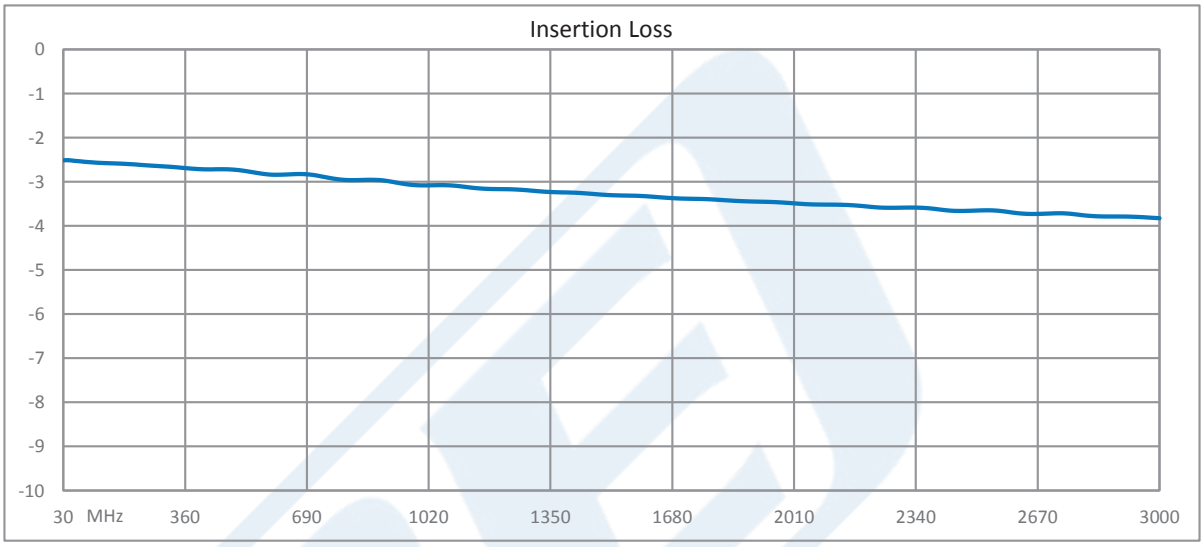
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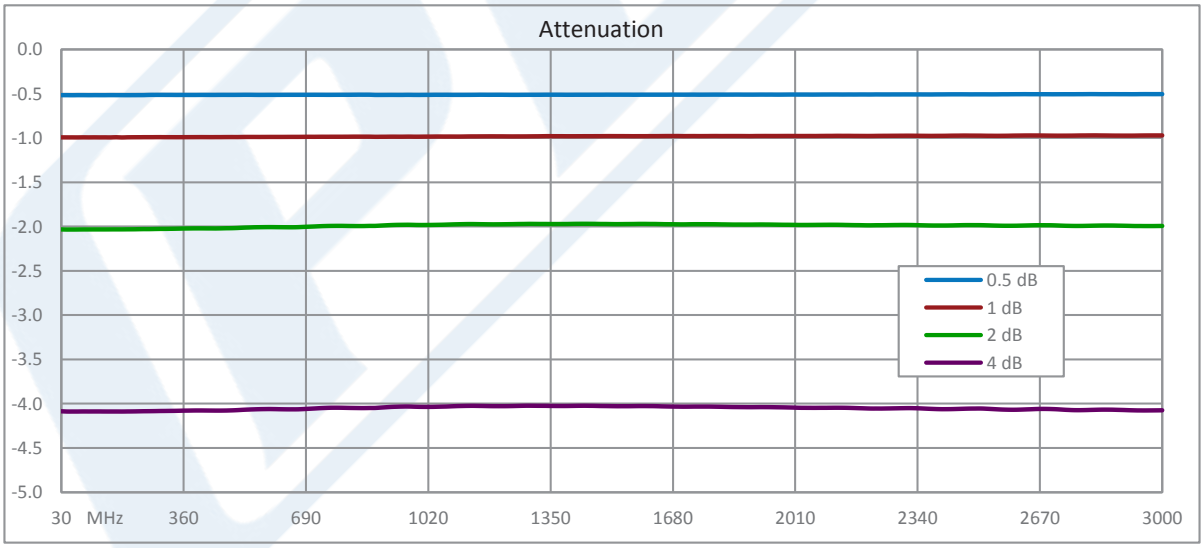
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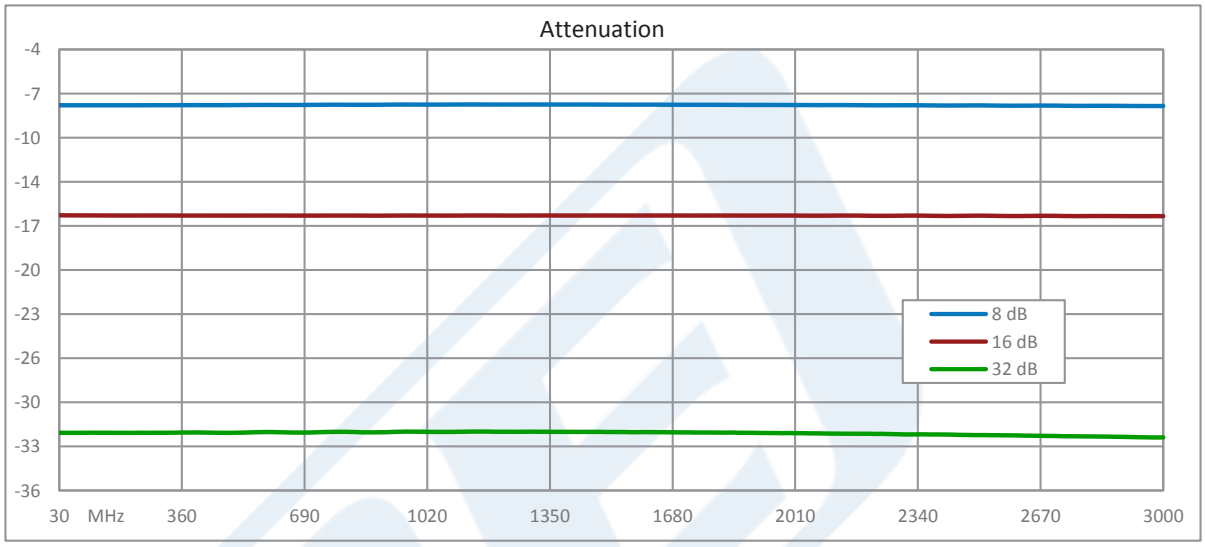
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URL: https://www.pasternack.com/63.5db-ttl-controlled-sma-female-sma-female-0-watts-attenuator-pe70a5005-p.aspx

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.

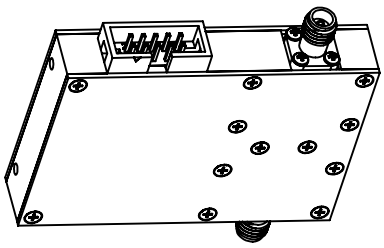
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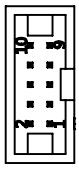
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PE70A5005 CAD Drawing

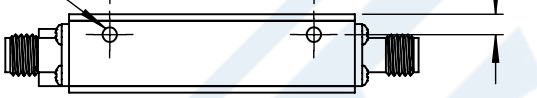
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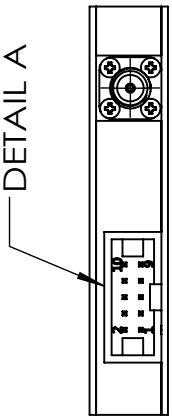


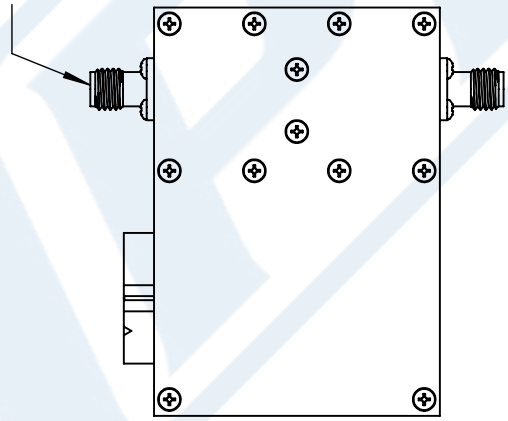


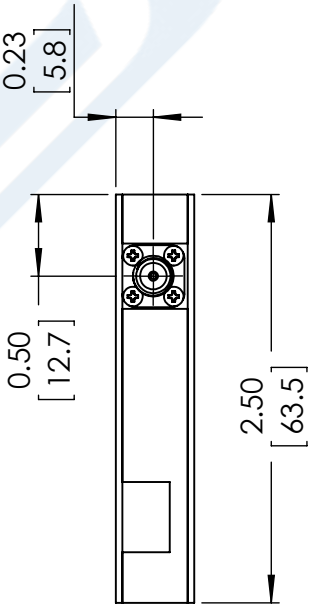
DETAIL A
T&B #609-1057

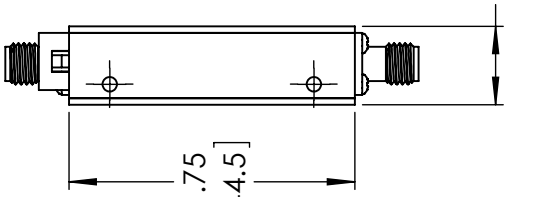
PIN	FUNCTION
1	.5dB TTL CONT.
2	1dB TTL CONT.
3	2dB TTL CONT.
4	4dB TTL CONT.
5	8dB TTL CONT.
6	16dB TTL CONT.
7	32dB TTL CONT.
8	NO CONNECTION
9	DC SUPPLY
10	GROUND











STANDARD TOLERANCES
.XX ±0.01
.XXX ±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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
PE70A5005

CAGE CODE 53919 | CAD FILE 041117 | SCALE N/A | SIZE A | CN_0992

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