PASTERNACK
an INFINITE brand

TTL Controlled Programmable Attenuator, 95 dB, from 200 MHz to 6 GHz, 1 dB Steps, SMA Female

TECHNICAL DATA SHEET PE70A5010

The PE70A5010 is a 7 Bit Programmable Attenuator which operates over the frequency range of 200 MHz to 6000 MHz. The 50 ohm design supports TTL control logic and has an attenuation range that covers 0 to 95 dB in 1 dB steps. Attenuation steps are 1, 2, 4, 8, 16, 32, and 32 dB. Insertion loss is 8 dB maximum with a maximum RF input power up to +20 dBm. Additional typical performance includes +/- 1.0 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 PE70A5010 has an operational termperature range of -40°C to +85°C.

Features

- 7 Bit Programmable Attenutor
- 200 to 6000 MHz Bandwidth
- 0-95 dB attenuation
- 1 dB Step Size
- 50 Ohms
- Swithing Speed: 0.7 microseconds typ
- Insertion Loss: 8.0 dB max
- Attenuation Accuracy: +/-1.0 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	0.2		6	GHz
Mean Attenuation Range	0		95	dB
Insertion Loss			8	dB
Input VSWR			2:1	
Survival Power Average			+25	dBm
Power Handling Capacity			+20 CW	dBm
Accuracy of Attenuation				dB
1 dB to 7 dB		±0.5		dB
8 dB to 11 dB		±1		dB
12 dB to 95 dB is ±1.25 dB or 4% whichever is greater				
Step Size	1			dB
Switching Time			1	us
Logic Input				
Logic “0” (Bit Off) @ 5µA	0		1.5	Volts
Logic “1” (Bit On) @ 800µA	2		5	Volts

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: TTL Controlled Programmable Attenuator, 95 dB, from 200 MHz to 6 GHz, 1 dB Steps, SMA Female PE70A5010

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.2 to 0.2	0.2 to 0.8	0.8 to 2	2 to 6		GHz
Insertion Loss, Typ	3.7	4	4.8	7.5		dB
VSWR, Max	1.9	1.6	1.6	1.6		

Electrical Specification Notes:
1, 2, 4, 8, 16, 32, 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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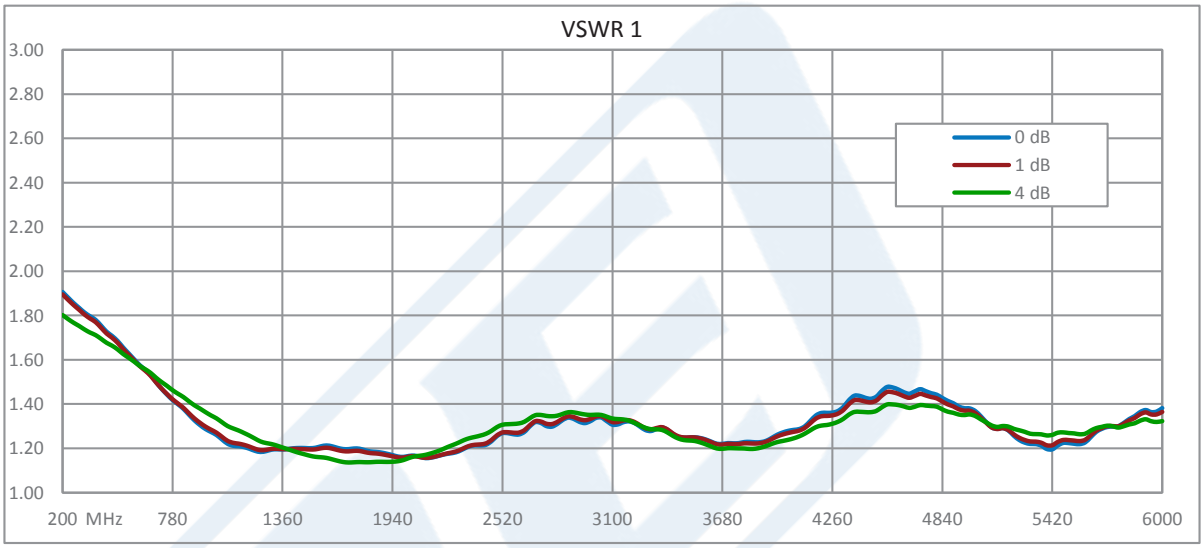
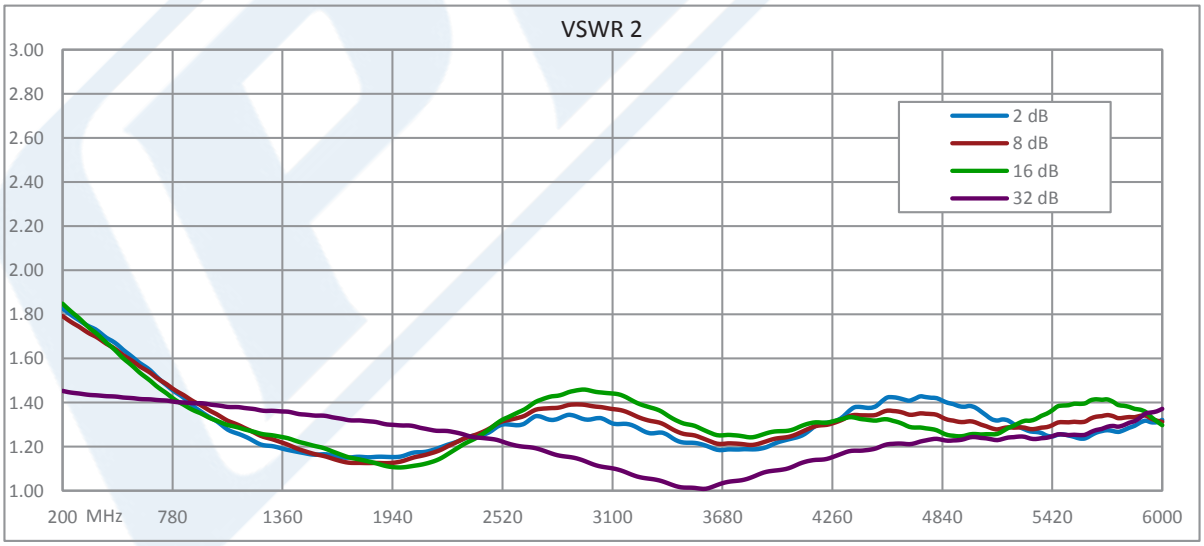
Performance Data





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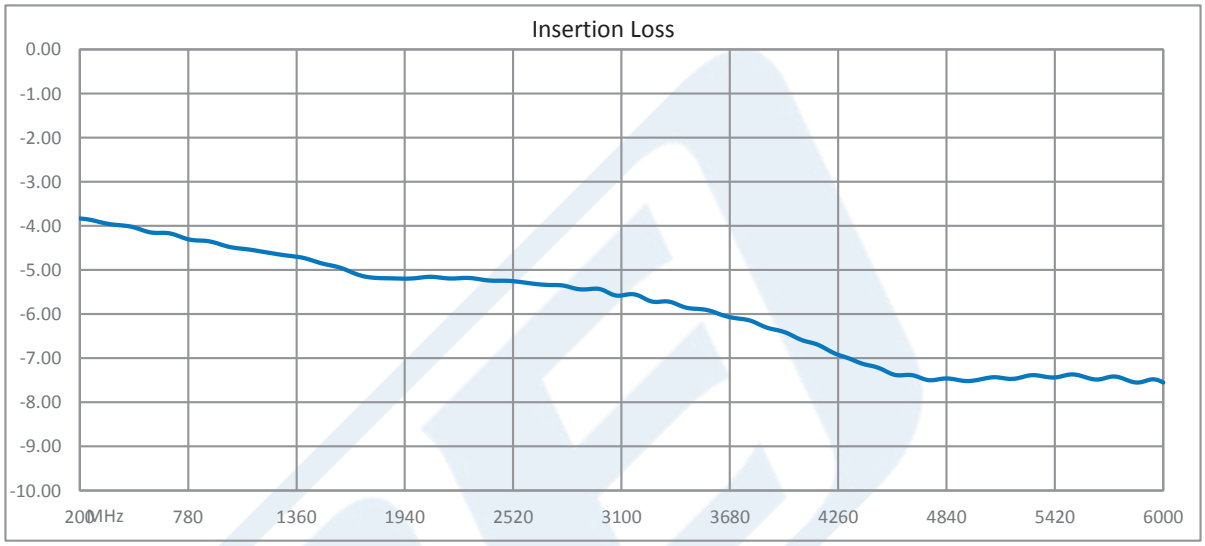

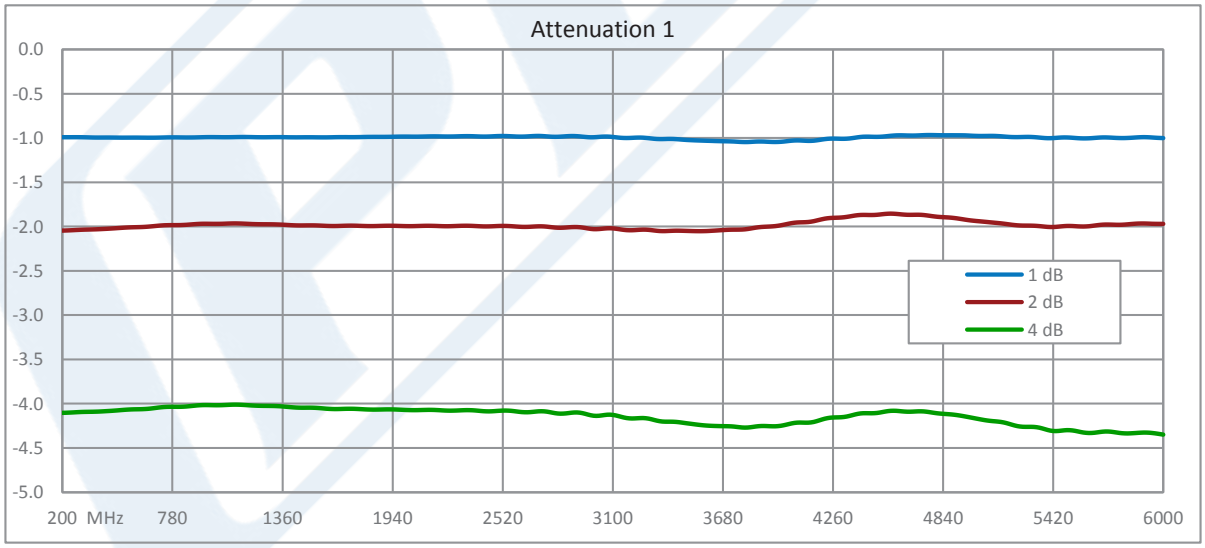

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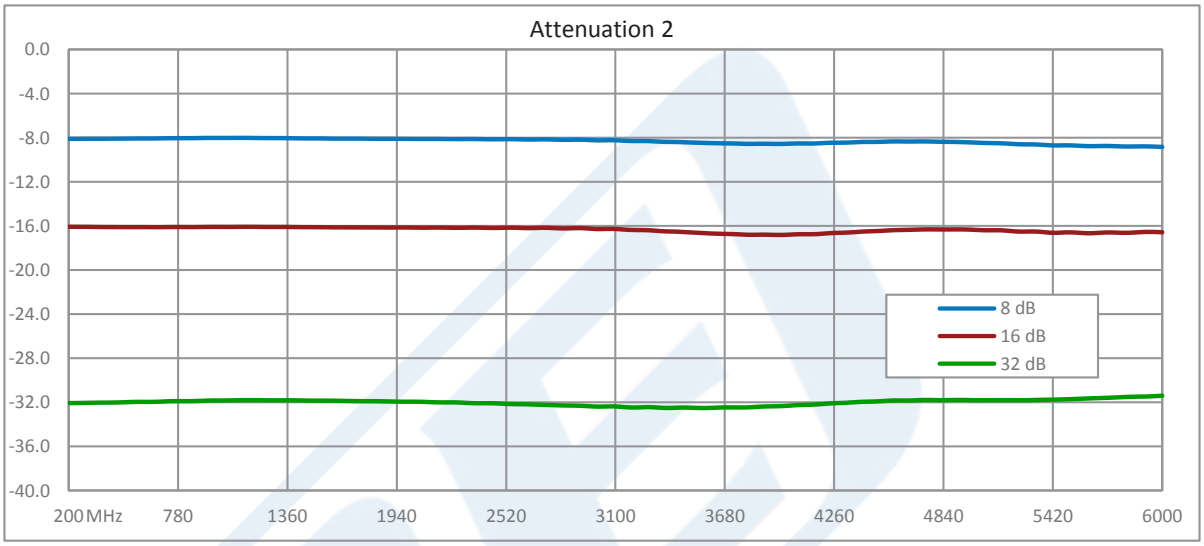

TTL Controlled Programmable Attenuator, 95 dB, from 200 MHz to 6 GHz, 1 dB Steps, SMA Female from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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URL: https://www.pasternack.com/95db-ttl-controlled-sma-female-sma-female-0-watts-attenuator-pe70a5010-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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PE70A5010 CAD Drawing

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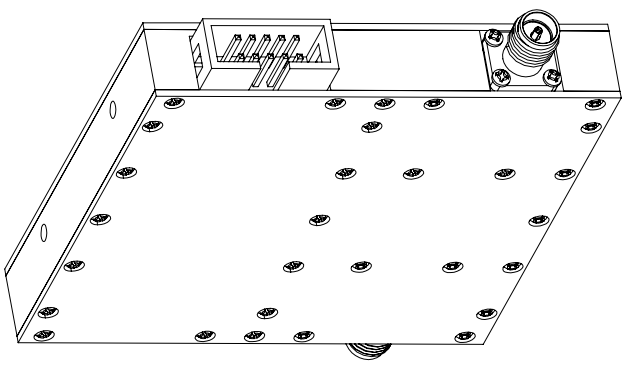
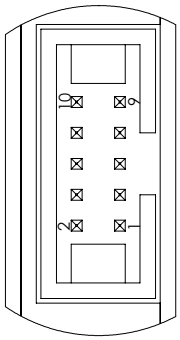
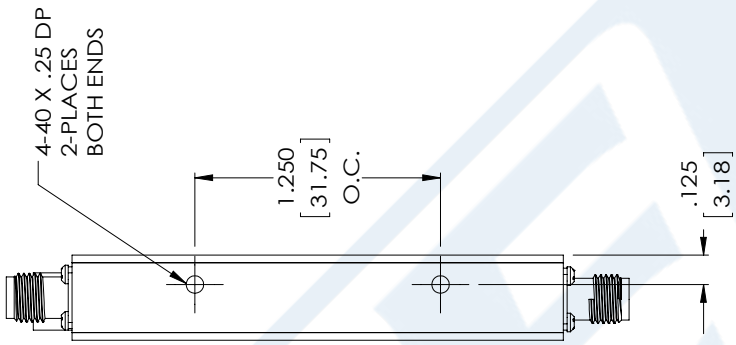
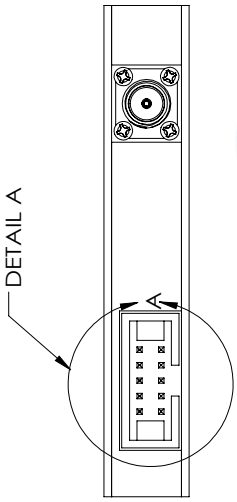


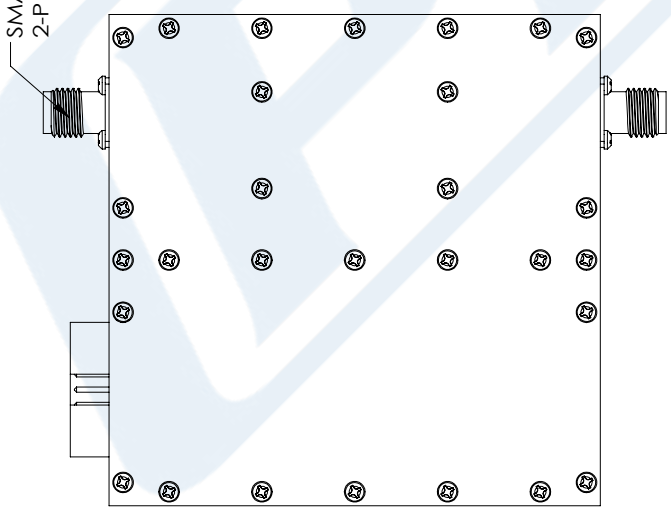


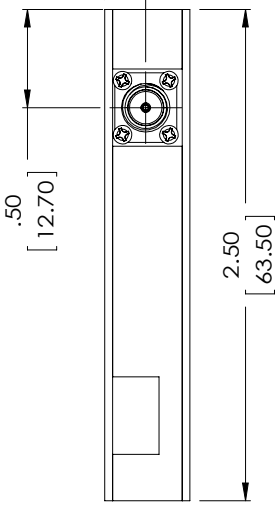
DETAIL A
T&B #609-1057

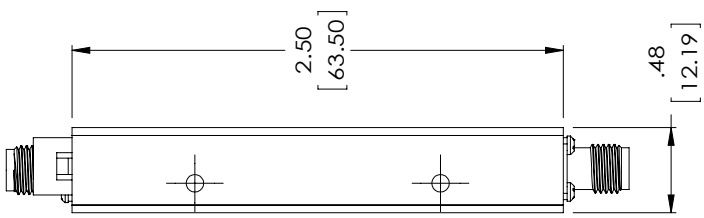
PIN	FOUNCTION
1	1dB TTL CONT.
2	2dB TTL CONT.
3	4dB TTL CONT.
4	8dB TTL CONT.
5	16dB TTL CONT.
6	32dB TTL CONT.
7	32dB TTL CONT.
8	NO CONNECTION
9	+5Vdc
10	GROUND











STANDARD TOLERANCES	
.XX	±0.010
.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
PE70A5010

CAD FILE 041217 | SCALE N/A | SIZE A | CN_1408

CAGE CODE 53919

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