



TTL Controlled Programmable Attenuator, 63 dB, from 200 MHz to 6 GHz, 1 dB Steps, SMA Female

TECHNICAL DATA SHEET

PE70A5009

The PE70A5009 is a 6 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 63 dB in 1 dB steps. Attenuation steps are 1, 2, 4, 8, 16, and 32 dB. Insertion loss is 5.5 dB maximum with a maximum RF input power +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 PE70A5009 has an operational temperature range of -40°C to +85°C.

Features

- 6 Bit Programmable Attenuator
- 200 to 6000 MHz Bandwidth
- 0-63 dB attenuation
- 1 dB Step Size
- 50 Ohms
- Switching Speed: 0.7 microseconds typ
- Insertion Loss: 5.5 dB max
- Attenuation Accuracy: +/- 1 dB typ
- DC Bias: +5 Vdc @ 50 mA
- SMA female connectors

Applications

- Electronic Warfare
- Electronic Countermeasures
- Microwave Radio
- VSAT
- Radar
- Fiber Optic
- Space Systems
- Test Instrumentation
- Telecom Infrastructure

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.2		6	GHz
Mean Attenuation Range	0		63	dB
Insertion Loss			5.5	dB
Input VSWR			1.8:1	
Survival Power Average			+25	dBm
Power Handling Capacity			+20 CW	dBm
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, 63 dB, from 200 MHz to 6 GHz, 1 dB Steps, SMA Female PE70A5009](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.2 to 0.8	0.8 to 2	2 to 6			GHz
Insertion Loss, Typ	3	3.6	5			dB
VSWR, Max	1.8	1.5	1.5			

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

Mechanical Specifications

Size

Connector 1
Connector 2

SMA Female
SMA Female

Environmental Specifications

Temperature

Operating Range

-40 to +85 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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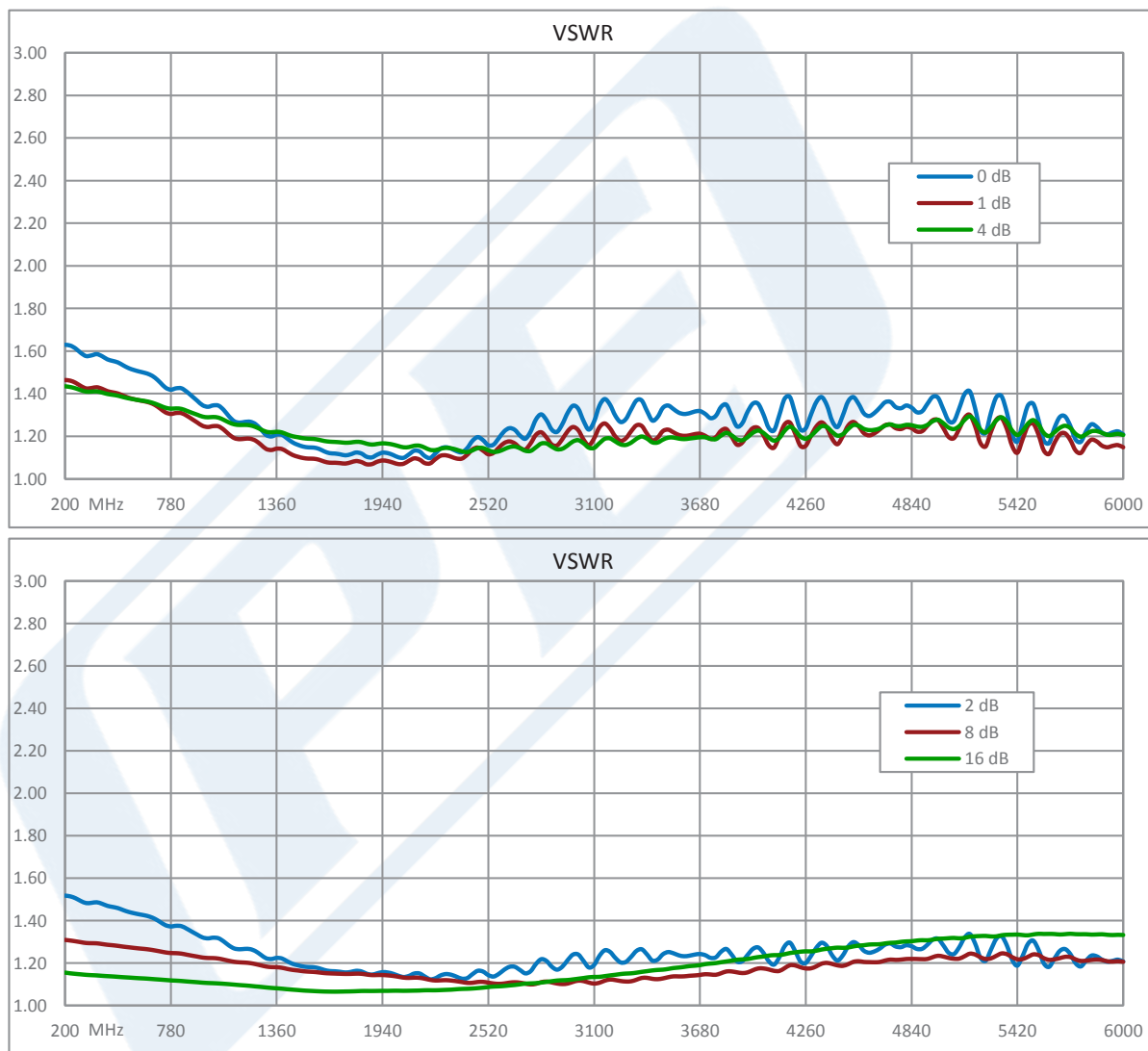


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Performance Data



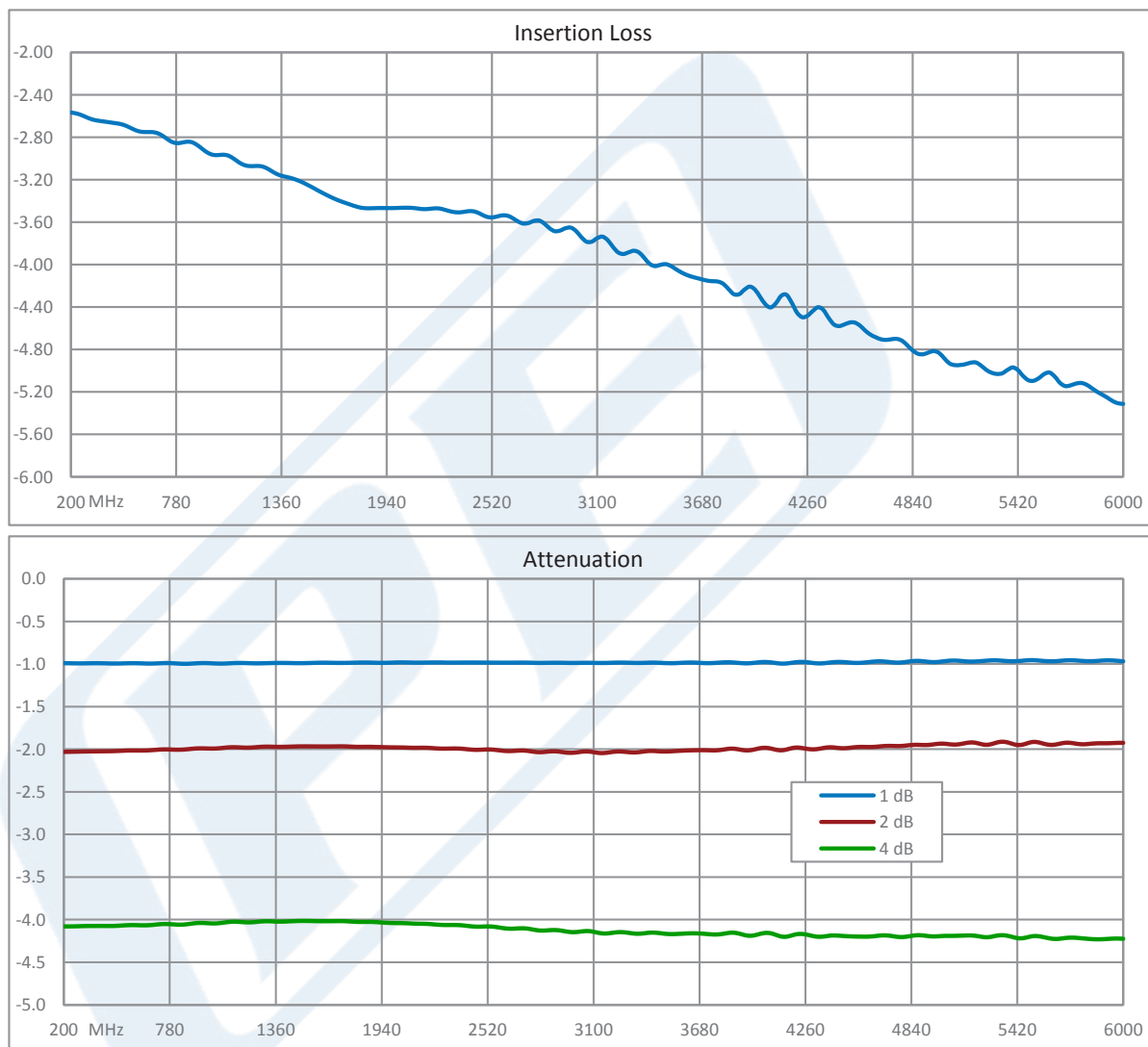
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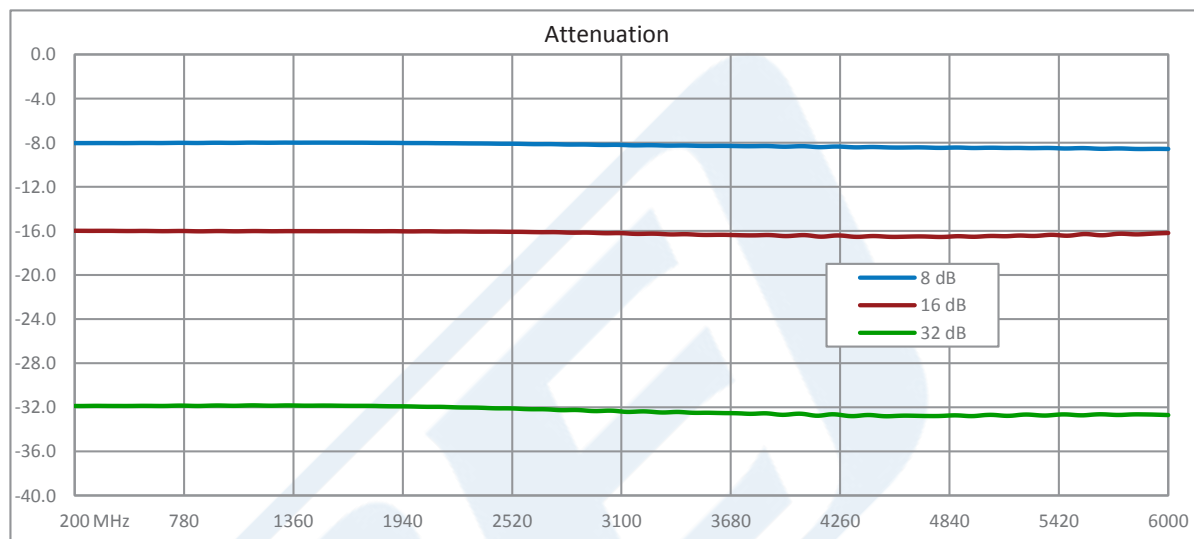
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TTL Controlled Programmable Attenuator, 63 dB, from 200 MHz to 6 GHz, 1 dB Steps, SMA Female from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

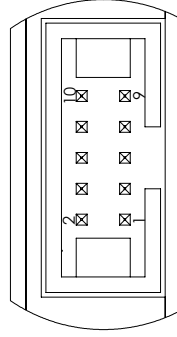
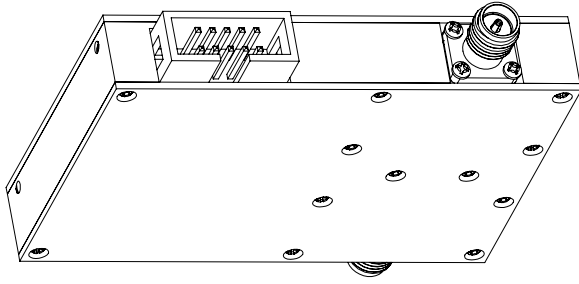
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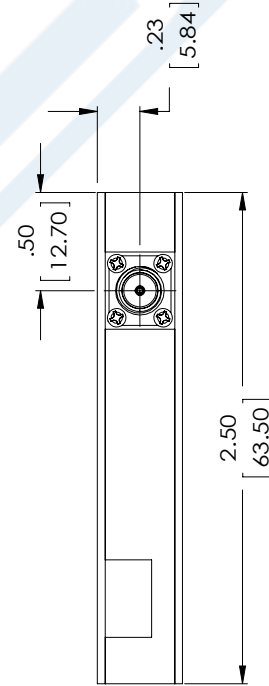
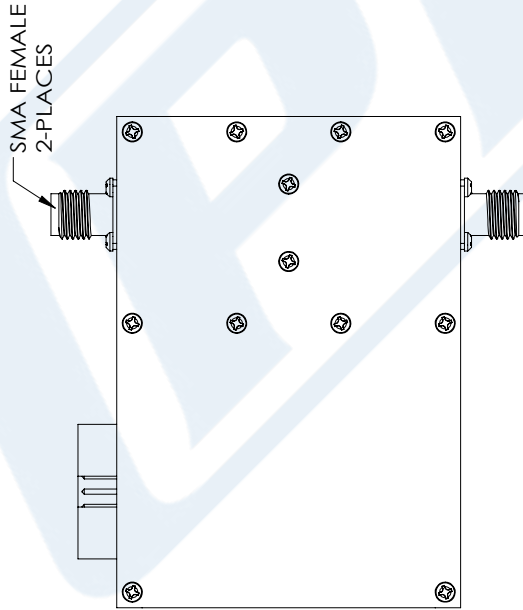
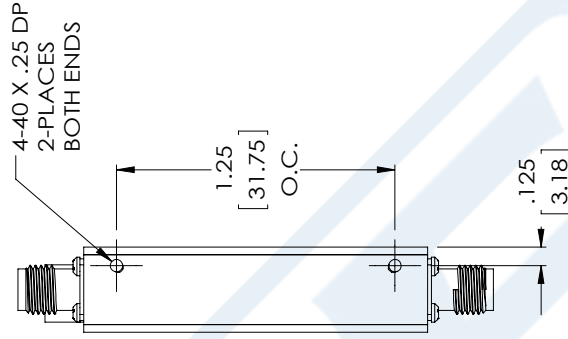
PE70A5009 CAD Drawing

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DETAIL A
T&B #609-1057

PIN	FUNCTION
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	NO CONNECTION
8	NO CONNECTION
9	DC SUPPLY
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
PE70A5009

CAGE CODE 53919

PE PASTERNAK®
THE ENGINEER'S RF SOURCE

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