



TTL Controlled Programmable Attenuator, 127 dB, from 700 MHz to 3 GHz, 1 dB Steps, SMA Female

TECHNICAL DATA SHEET

PE70A5008

The PE70A5008 is a 7 Bit Programmable Attenuator which operates over the frequency range of 700 MHz to 3000 MHz. The 50 ohm design supports TTL control logic and has an attenuation range that covers 0 to 127 dB in 1 dB steps. Attenuation steps are 1, 2, 4, 8, 16, 32, and 64 dB. Insertion loss is 6 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 supports dual voltages of +5 Vdc and -5 Vdc. 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 PE70A5008 has an operational temperature range of -40°C to +85°C.

Features

- 7 Bit Programmable Attenuator
- 700 to 3000 MHz Bandwidth
- 0-127 dB attenuation
- 1 dB Step Size
- 50 Ohms
- Switching Speed: 0.7 microseconds typ
- Insertion Loss: 6.0 dB max
- Attenuation Accuracy: +/- 1 dB typ
- DC Voltage Dual Supply: +5 / -5 Vdc
- 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	0.7		3	GHz
Mean Attenuation Range	0		127	dB
Insertion Loss			6	dB
Input VSWR			1.5:1	
Power Handling Capacity			+20 CW	dBm
DC Supply				
+5 Vdc		@ 140 mA (0 dB)		
		@ 155 mA (127 dB)		
-5 Vdc		@ 115 mA (0 dB)		
		@ 85 mA (127 dB)		
Accuracy of Attenuation or 2% whichever is greater			±0.5	dB
Step Size	1			dB
Switching Time			5	us
Logic Input				
Logic "0" (Bit Off) @ 5µA	0		1.5	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, 127 dB, from 700 MHz to 3 GHz, 1 dB Steps, SMA Female PE70A5008](#)



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Logic "1" (Bit On) @ 800µA	2	5	Volts
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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.7 to 0.7	0.7 to 3				GHz
Insertion Loss, Typ	2.3	4.8				dB

Electrical Specification Notes:
1, 2, 4, 8, 16, 32, and 64 dB bit Steps

Mechanical Specifications

Size

Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications

Temperature

Operating Range	0 to +70 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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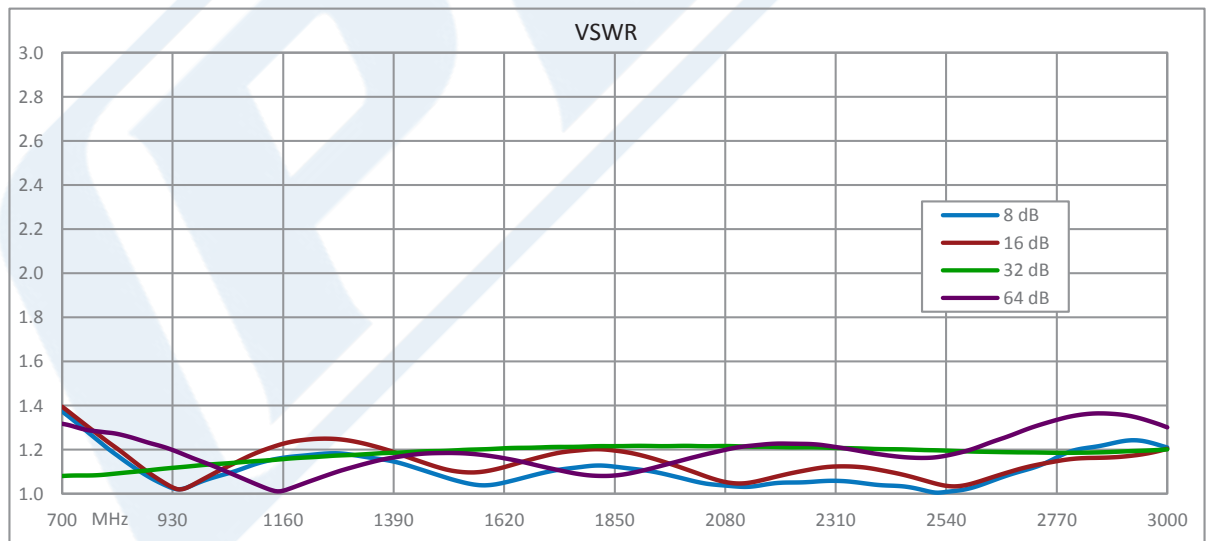
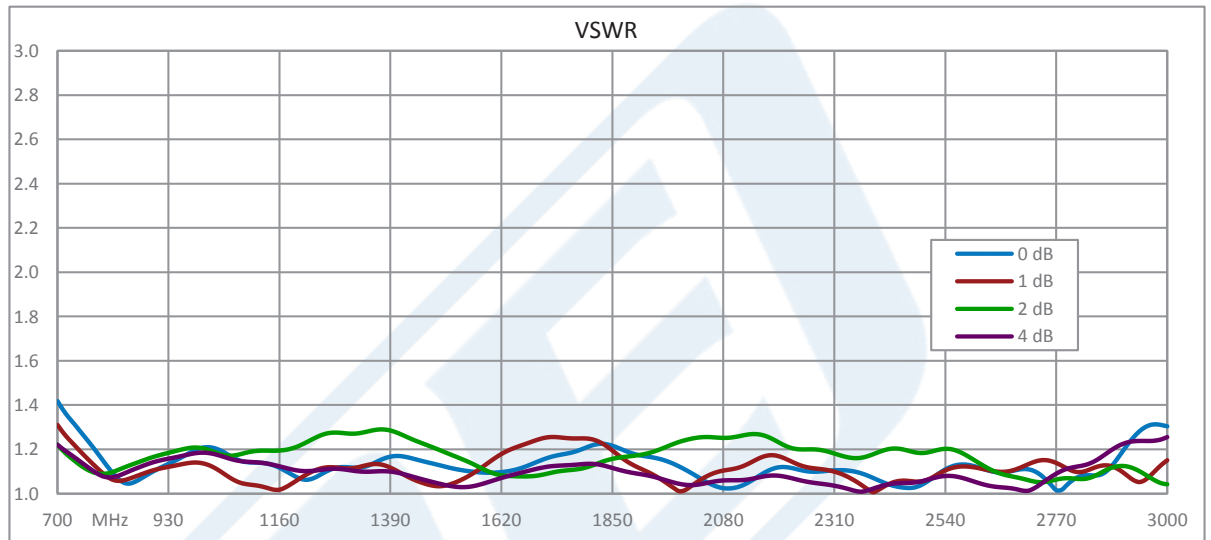


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Performance Data



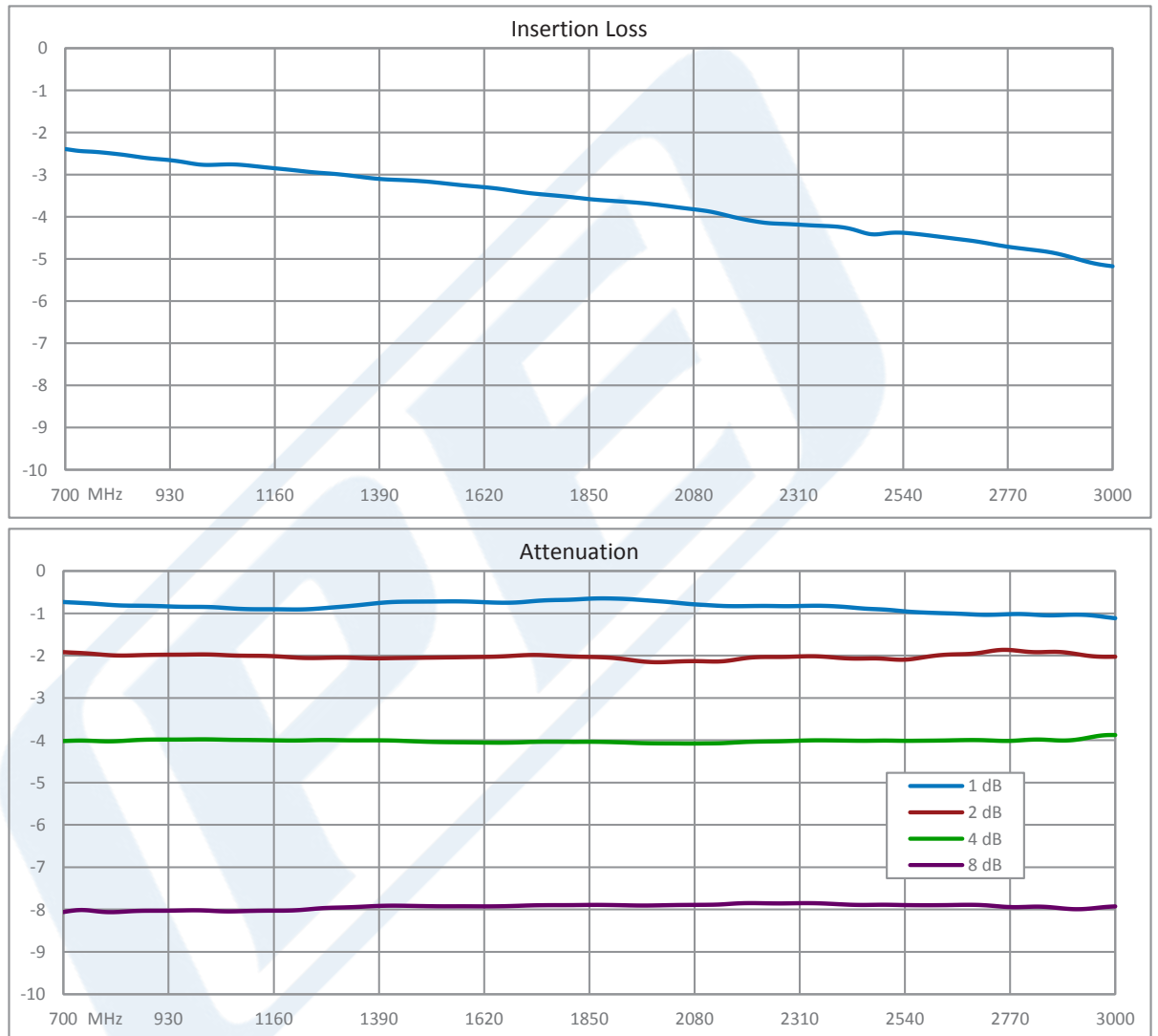
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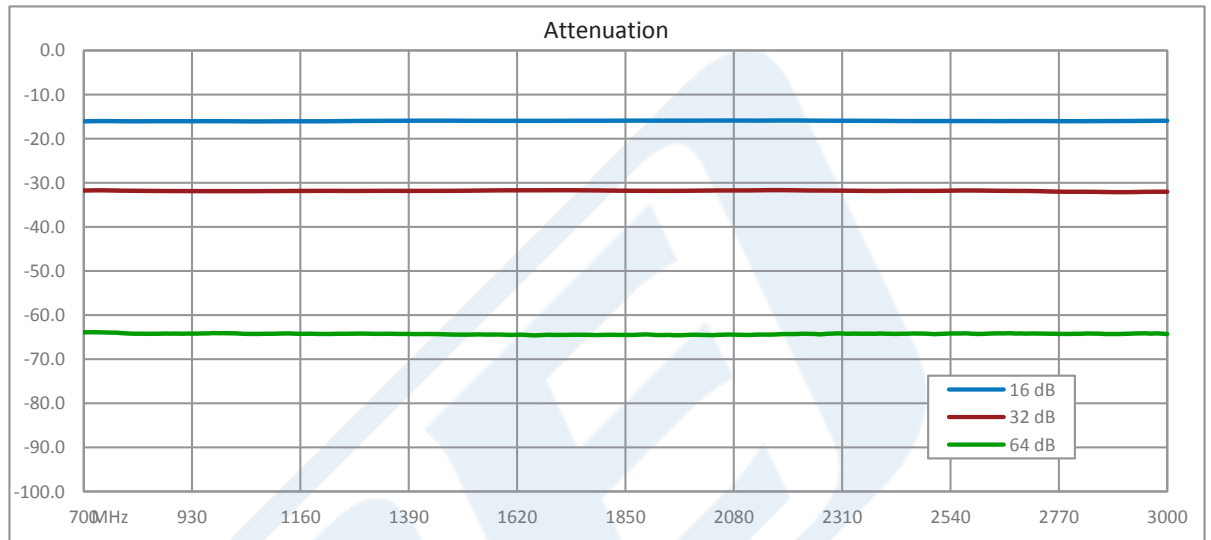
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TTL Controlled Programmable Attenuator, 127 dB, from 700 MHz to 3 GHz, 1 dB Steps, SMA Female from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

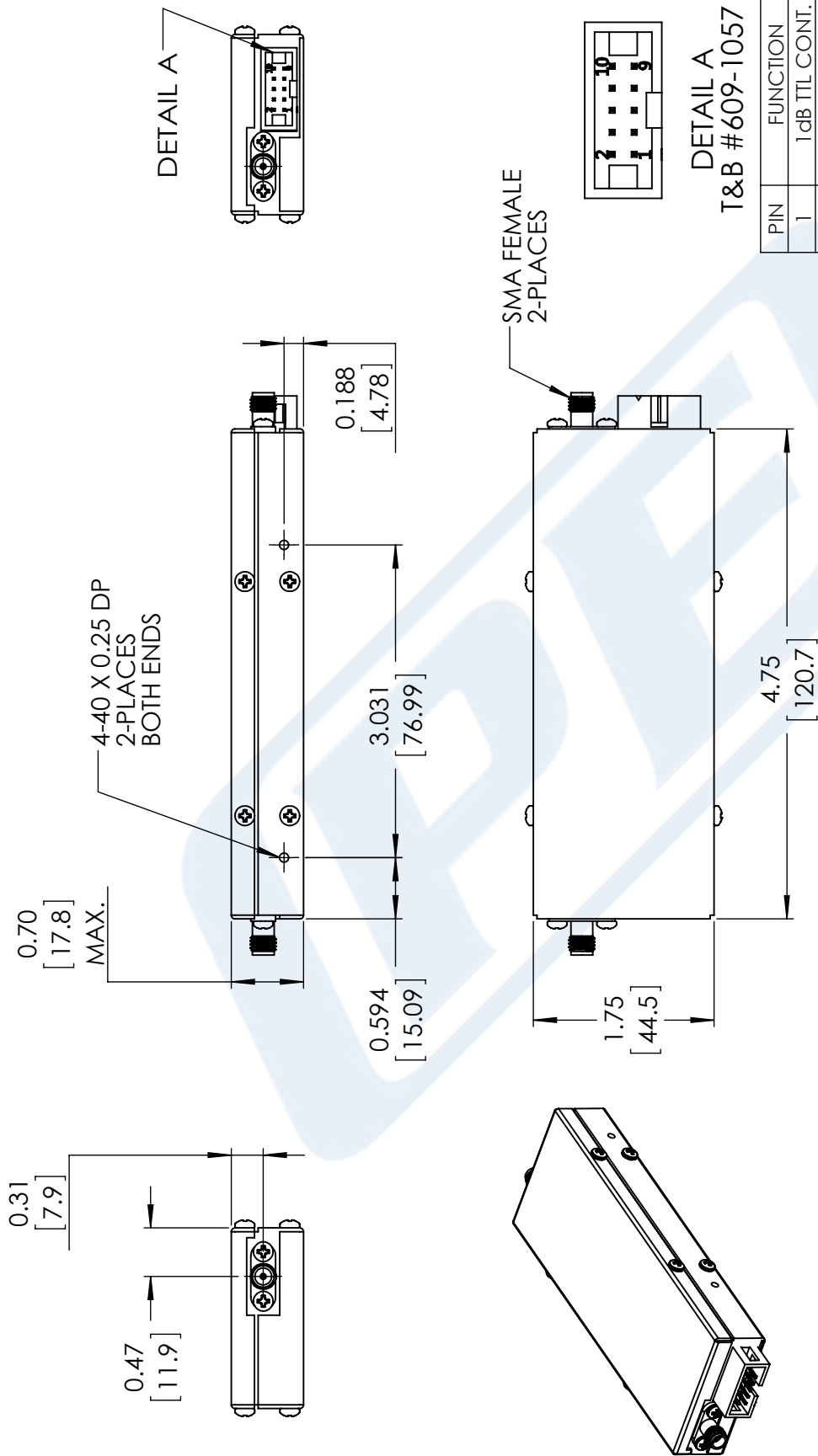
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URL: <https://www.pasternack.com/127db-ttl-controlled-sma-female-sma-female-0-watts-attenuator-pe70a5008-p.aspx>

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.

PE70A5008 CAD Drawing

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STANDARD TOLERANCES
.XX ±0.01
.XXX ±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



THE ENGINEER'S RF SOURCE

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DWG TITLE

PE70A5008

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].

CAGE CODE 53919

CAD FILE 041117

SCALE N/A

SIZE A

CN_0992