

TTL Controlled Programmable Attenuator, 63 dB, from 5 MHz to 2.15 GHz, 75 Ohm, 1 dB Steps, F Female

PE70A5012



Features

- 6 Bit Programmable Attenuator
- 5 to 2150 MHz Bandwidth
- 0-63 dB attenuation
- 1 dB Step Size
- 75 Ohms
- Switching Speed: 5 microseconds typ
- Insertion Loss: 5.25 dB max
- Attenuation Accuracy: +/-0.5 dB typ
- DC Bias: +5 Vdc @ 220 mA
- F type female connectors

Applications

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

Description

The PE70A5012 is a 6 Bit Programmable Attenuator which operates over the frequency range of 5 MHz to 2150 MHz. The 75 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 5.25 dB maximum with a maximum RF input power up to +10 dBm. Additional typical performance includes +/- 0.5 dB attenuation accuracy typ and switching speed of 5 microseconds. The DC supply is +5 Vdc @ 220 mA. The compact and rugged package design supports F type 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 PE70A5012 has an operational temperature range of 0°C to +70°C.

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

Description	Min	Typ	Max	Unit
Frequency Range	0.005		2.15	GHz
Impedance		75		Ohms
Attenuation Range	0		63	dB
Insertion Loss			5.25	dB
VSWR		1.4:1	1.6:1	
Power Rating			10	dBm
Survial Power Average 0 to +70 deg C				
Accuracy of Attenuation or 3% whichever is greater				
Step Size		1		dB
Switching Time		5		us
Logic Input "0" (Bit Off)	0		1.5	Volts
Logic Input "1" (Bit On)	2		5	Volts

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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.005-0.005	0.005-1	1-1.65	1.65-2.15		GHz
Insertion Loss, Typ	1.6	2.3	3.3	4.6		dB

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

Mechanical Specifications

Size

Length	0 in [0 mm]
Width	0 in [0 mm]
Height	0 in [0 mm]
Weight	0.809 lbs [366.96 g]
Connector 1	F Female
Connector 2	F 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:

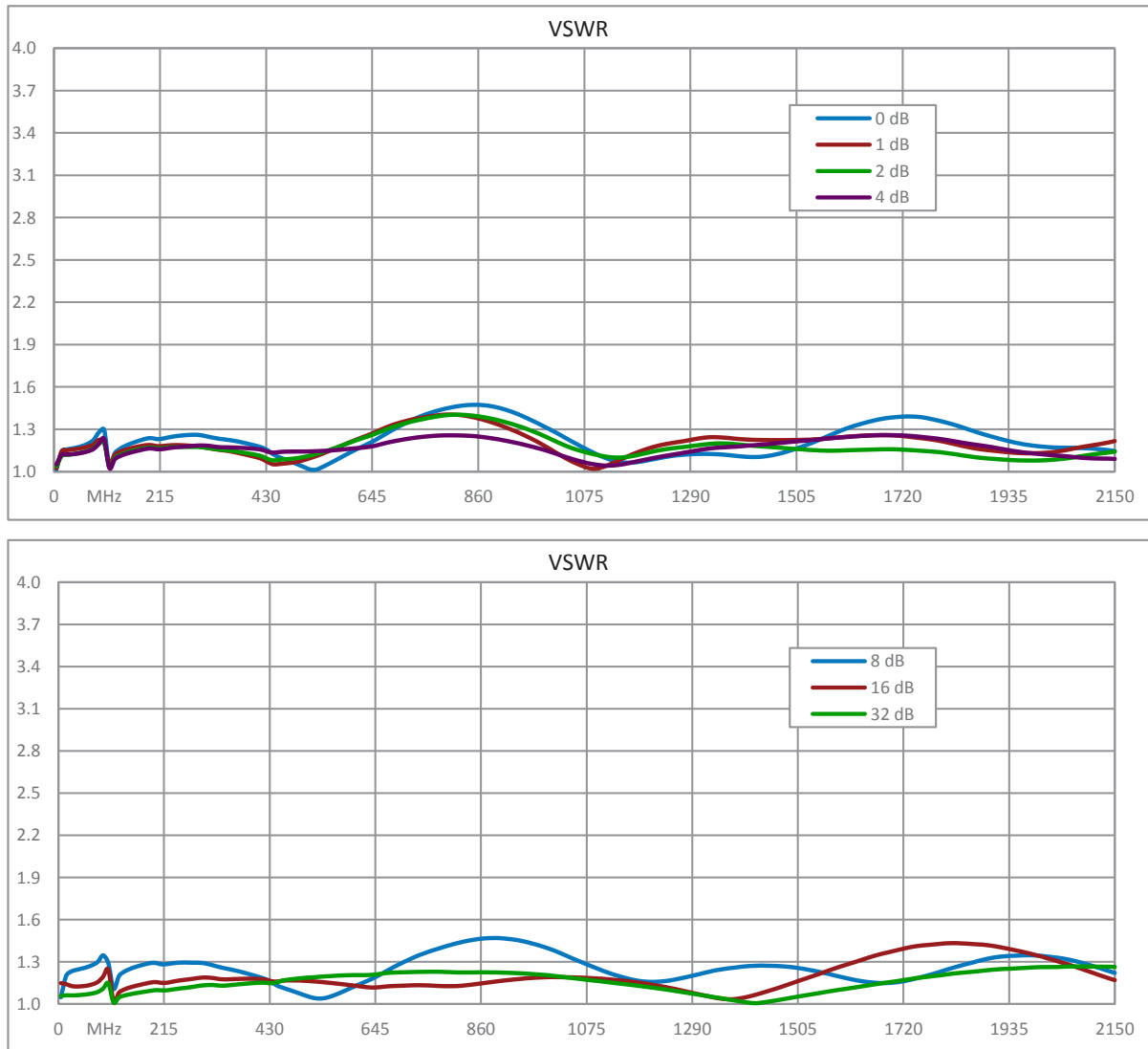
- Values at 25 °C, sea level

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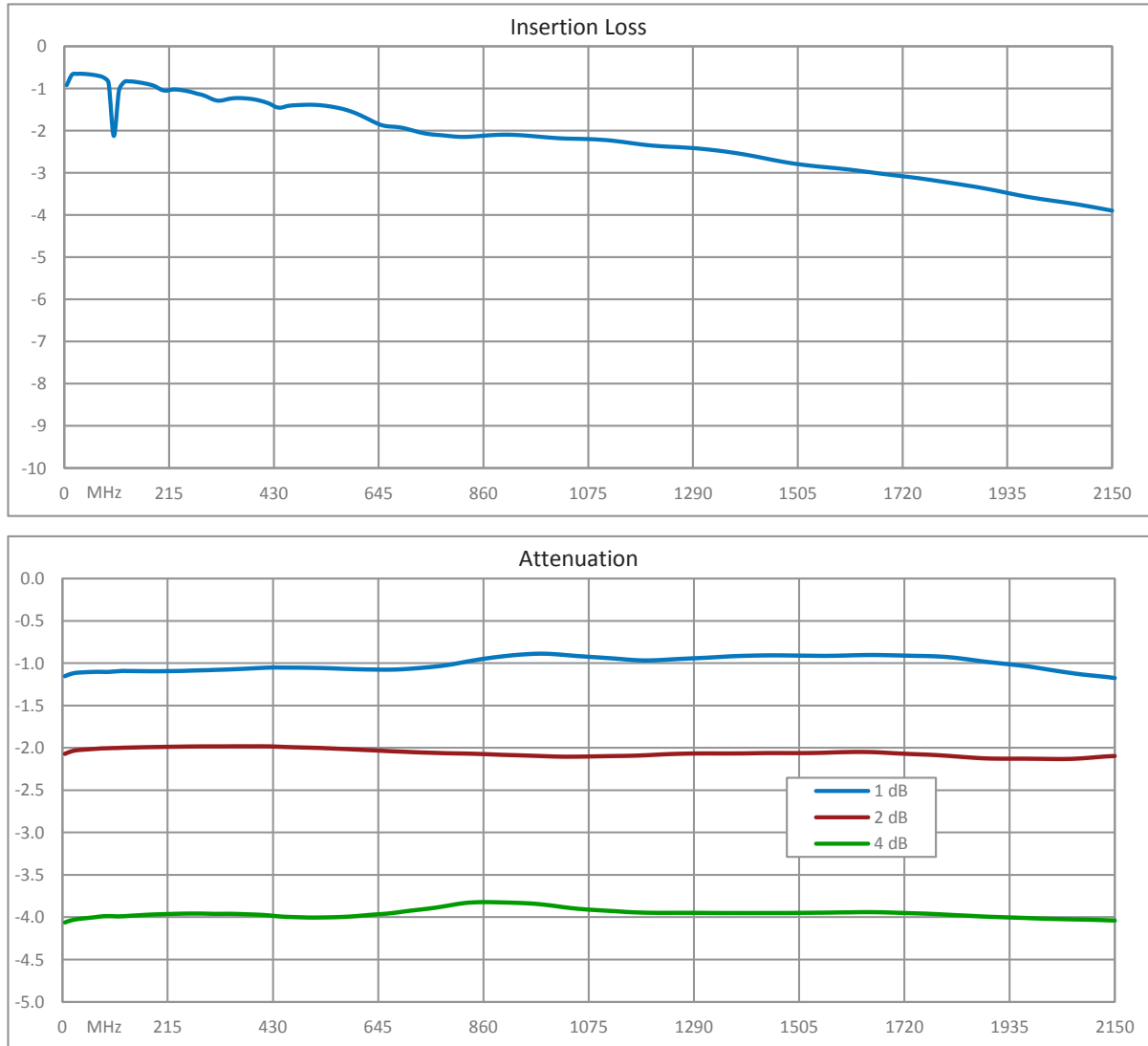
Typical Performance Data



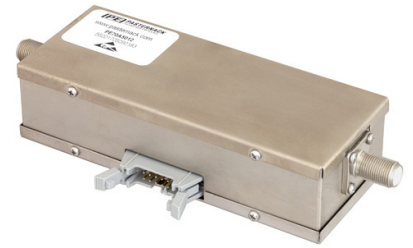
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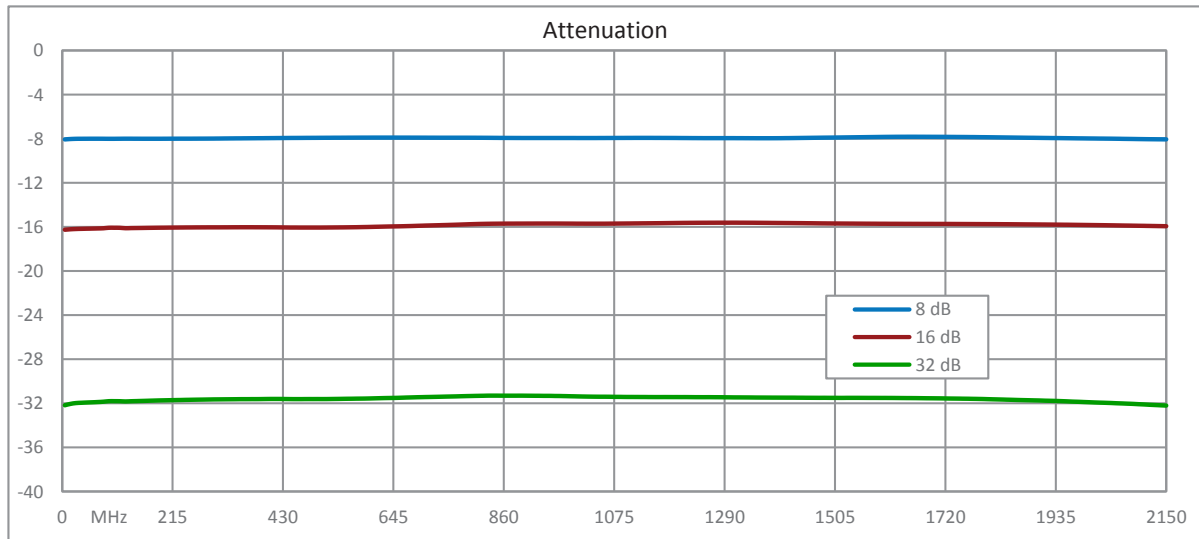
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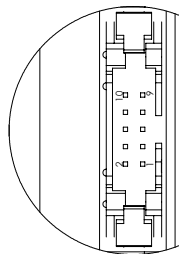
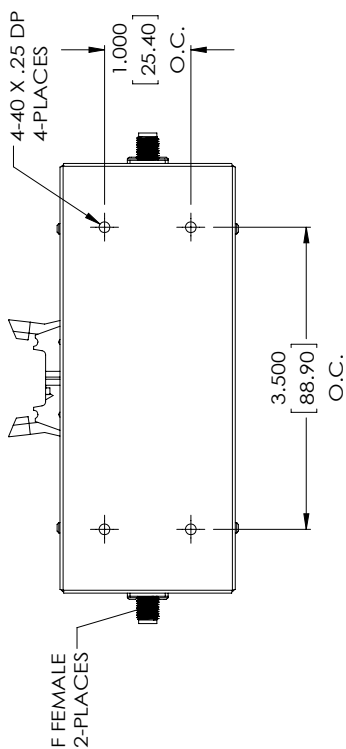
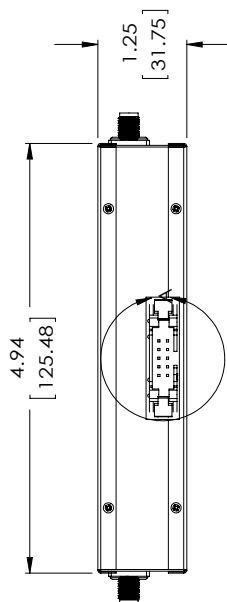
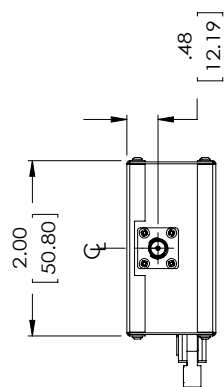
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Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [TTL Controlled Programmable Attenuator, 63 dB, from 5 MHz to 2.15 GHz, 75 Ohm, 1 dB Steps, F Female PE70A5012](https://www.pasternack.com/63db-ttl-controlled-f-female-f-female-30-watts-attenuator-pe70a5012-p.aspx)

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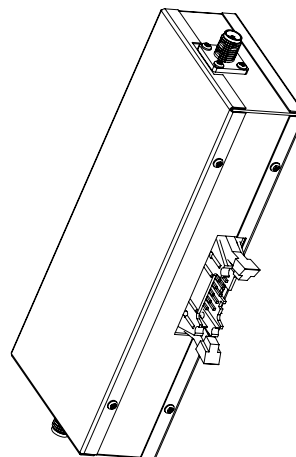
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DETAIL A
3M# 3793-5303

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	64dB TTL CONT.
8	NO CONNECTION
9	NO CONNECTION
10	GROUND



<u>STANDARD TOLERANCES</u>	
.XX	±0.010
.XXX	±0.005

STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES



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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

DWG TITLE

PE70A5012

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].

CAD FILE 041217

CAGE CODE 53919

CN_1408