

8 Bit Relay Controlled Programmable Attenuator, 63.75 dB Up to 2 GHz, 0.25 dB Steps, +12V, SMA Female



PE70A8002

Features

- 8 Bit Relay Programmable Attenuator
- DC to 2000 MHz Frequency Range
- 0-63.75 dB Attenuation Range
- Step Resolution of 0.25 dB
- Insertion Loss 3.5 dB max
- SMA Female
- 9 Solder Terminals
- CMOS control

Applications

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

Description

The PE70A8002 is a 8 Bit Relay Programmable Attenuator which operates over the frequency range of DC to 2000 MHz. The 50 ohm design has an attenuation range that covers 0 to 63.75 dB in 0.25 dB steps. Attenuation steps are 0.25, 0.5, 1, 2, 4, 8, 16, and 32 dB. Insertion loss is 3.5 dB maximum with a maximum RF input power 0.5 Watt average. Additional typical performance includes +/- 0.3 dB attenuation accuracy and switching speed of 6 milliseconds. The DC supply is +12 Vdc @ 30 mA per relay (8 relay solder terminals, 1 GND solder terminal). The compact and rugged package design supports SMA female RF input/output connectors and DC connector solder terminals. Operational temperature is -20°C to +85°C.

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

Description	Min	Typ	Max	Unit
Frequency Range	DC		2	GHz
Impedance		50		Ohms
Attenuation Range	0		63.75	dB
Power Rating			27	dBm
Survial Power Average -20 to +85 deg C				
Accuracy of Attenuation				
0.25 dB to 0.5 dB		±0.15		dB
1 dB to 8 dB		±0.3		dB
16 dB to 63.75 dB is ±3%				
Step Size		0.25		dB
Switching Time		6		ms
DC Voltage		±12		Volts
DC Current			30	mA
Control Bits		8		Bits

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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC-1	1-2				GHz
Insertion Loss, Max	3	3.5				dB
VSWR, Max	1.4	1.5				

Electrical Specification Notes:

0.25, 0.5, 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	0.581 lbs [263.54 g]
Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications

Temperature

Operating Range	-20 to +85 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

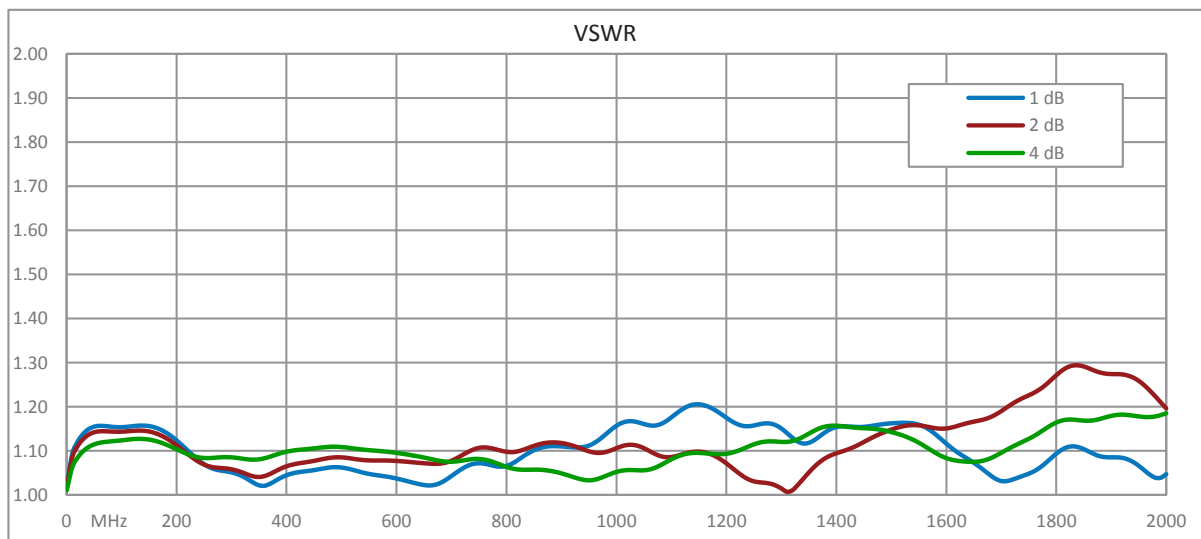
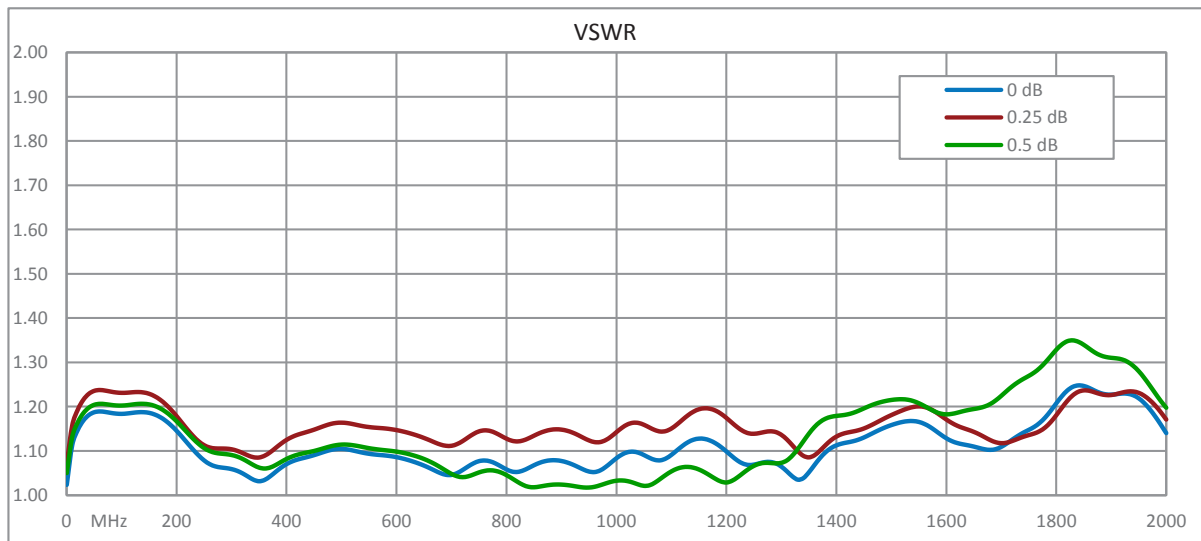
- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

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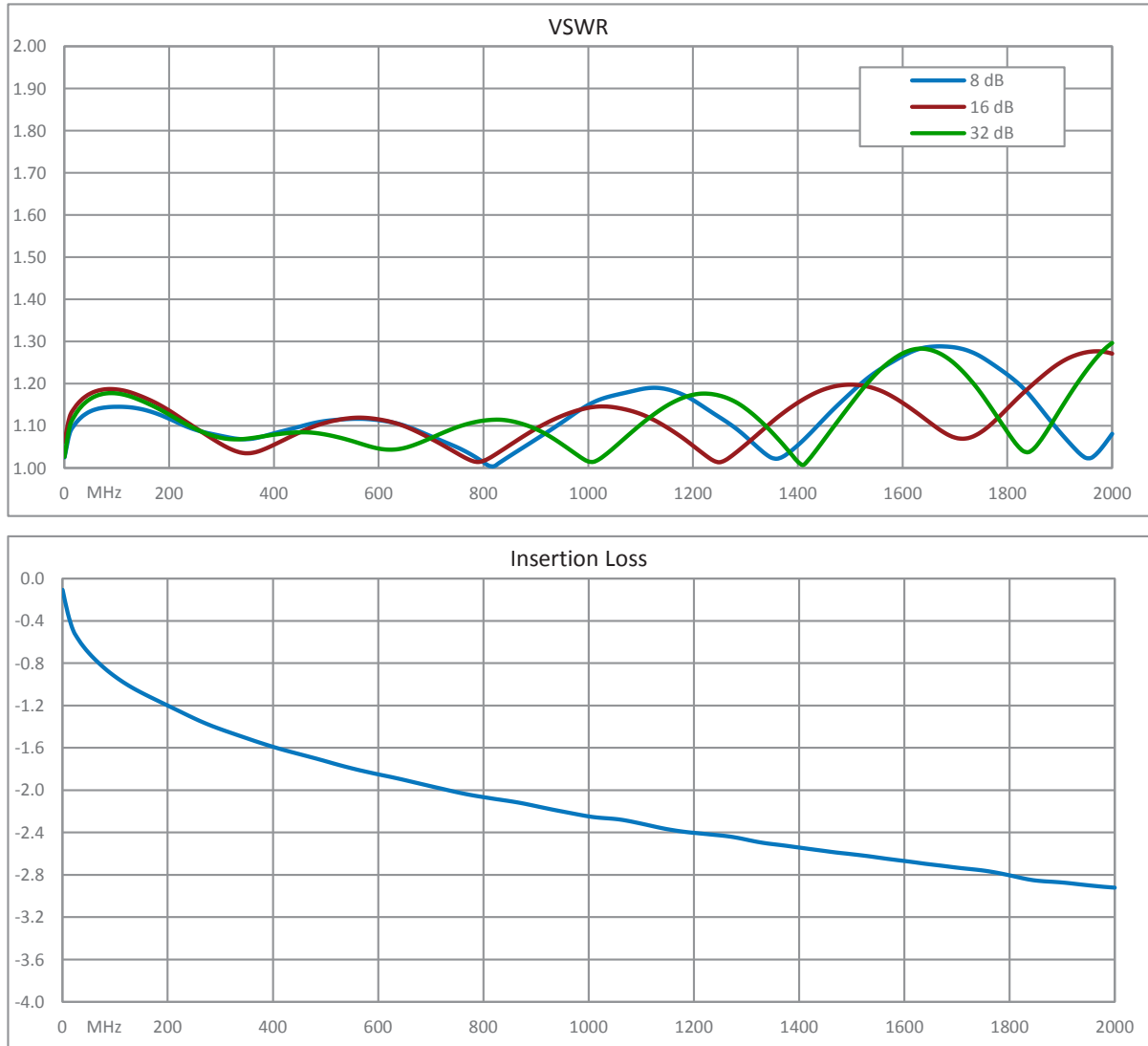
Typical Performance Data



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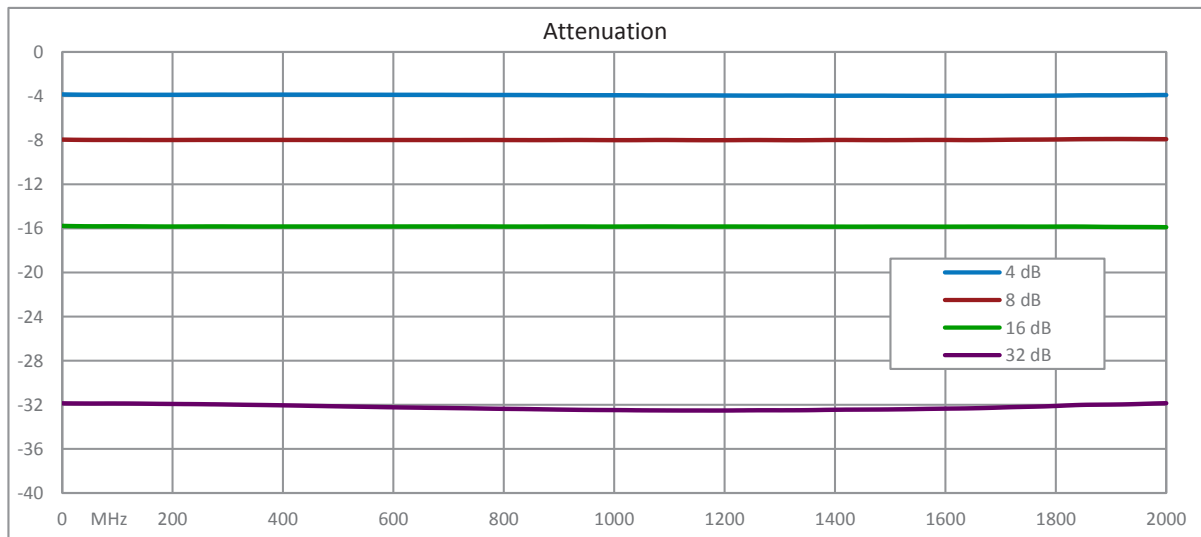
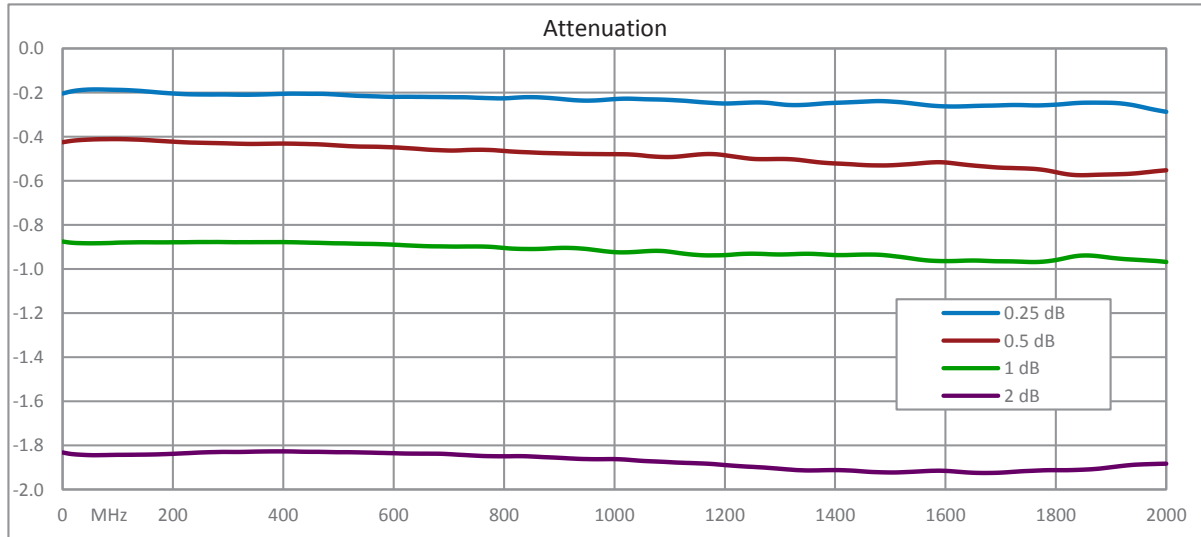
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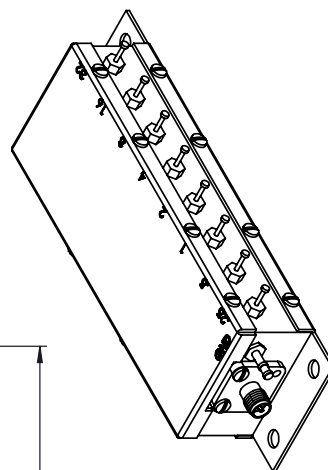
8 Bit Relay Controlled Programmable Attenuator, 63.75 dB Up to 2 GHz, 0.25 dB Steps, +12V, SMA Female from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [8 Bit Relay Controlled Programmable Attenuator, 63.75 dB Up to 2 GHz, 0.25 dB Steps, +12V, SMA Female PE70A8002](#)

URL: <https://www.pasternack.com/63.75db-relay-controlled-sma-female-sma-female-0.5-watts-attenuator-pe70a8002-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

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STANDARD TOLERANCES

***STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES**



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THE ENGINEER'S RF SOURCE

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DWG TITLE

PE70A8002

CAGE CODE 53919

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 041117

SCALE N/A

SIZE A

0157