

6 Bit Relay Controlled Programmable Attenuator, 63 dB Up to 1,000 MHz, 75 Ohm, 1 dB Steps, +12V, F Female



PE70A8003

Features

- 6 Bit Relay Programmable Attenuator
- DC to 1000 MHz Frequency Range
- 0-63 dB Attenuation Range
- Step Resolution of 1 dB
- Insertion Loss 2.2 dB max
- F Female
- 7 Solder Terminals
- CMOS control

Applications

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

Description

The PE70A8003 is a 6 Bit Relay Programmable Attenuator which operates over the frequency range of DC to 1000 MHz. The 75 ohm design 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 2.2 dB maximum with a maximum RF input power 1 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 (6 relay solder terminals, 1 GND solder terminal). The compact and rugged package design supports F 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		1,000	MHz
Impedance		75		Ohms
Attenuation Range	0		63	dB
Insertion Loss			2.2	dB
VSWR			1.4:1	
Power Rating			30	dBm
Survival Power Average -20 to +85 deg C				
Accuracy of Attenuation or 1.5% whichever is greater				
Step Size		1		dB
Switching Time		6		ms
DC Voltage		±12		Volts
DC Current			30	mA
Control Bits		6		Bits

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

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Mechanical Specifications

Size

Length	0 in [0 mm]
Width	0 in [0 mm]
Height	0 in [0 mm]
Weight	0.485 lbs [219.99 g]
Connector 1	F Female
Connector 2	F Female

Environmental Specifications

Temperature

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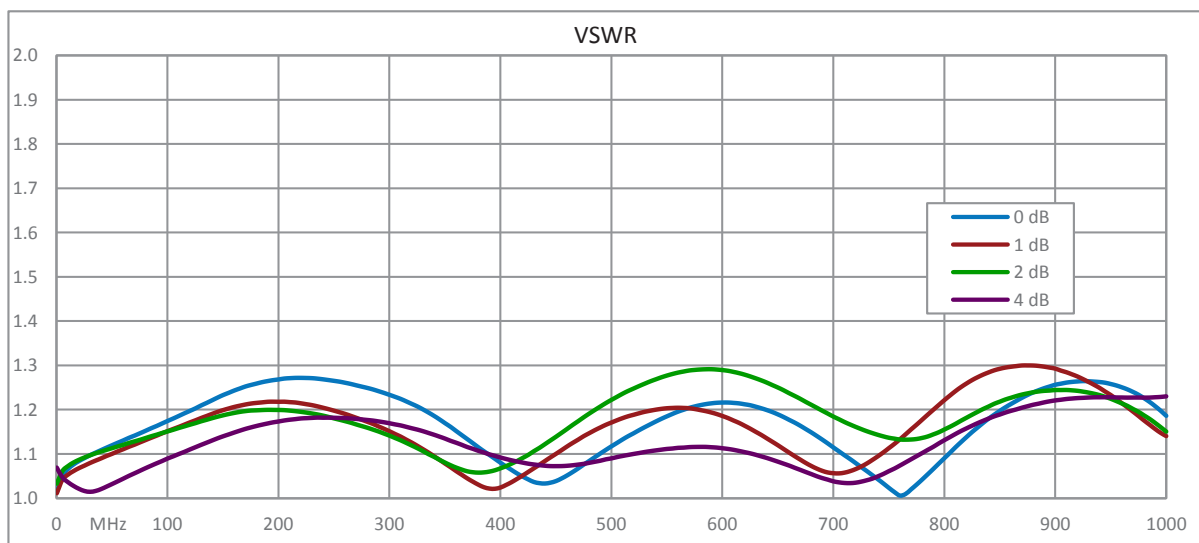
Compliance Certifications (see [product page](#) for current document)

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.

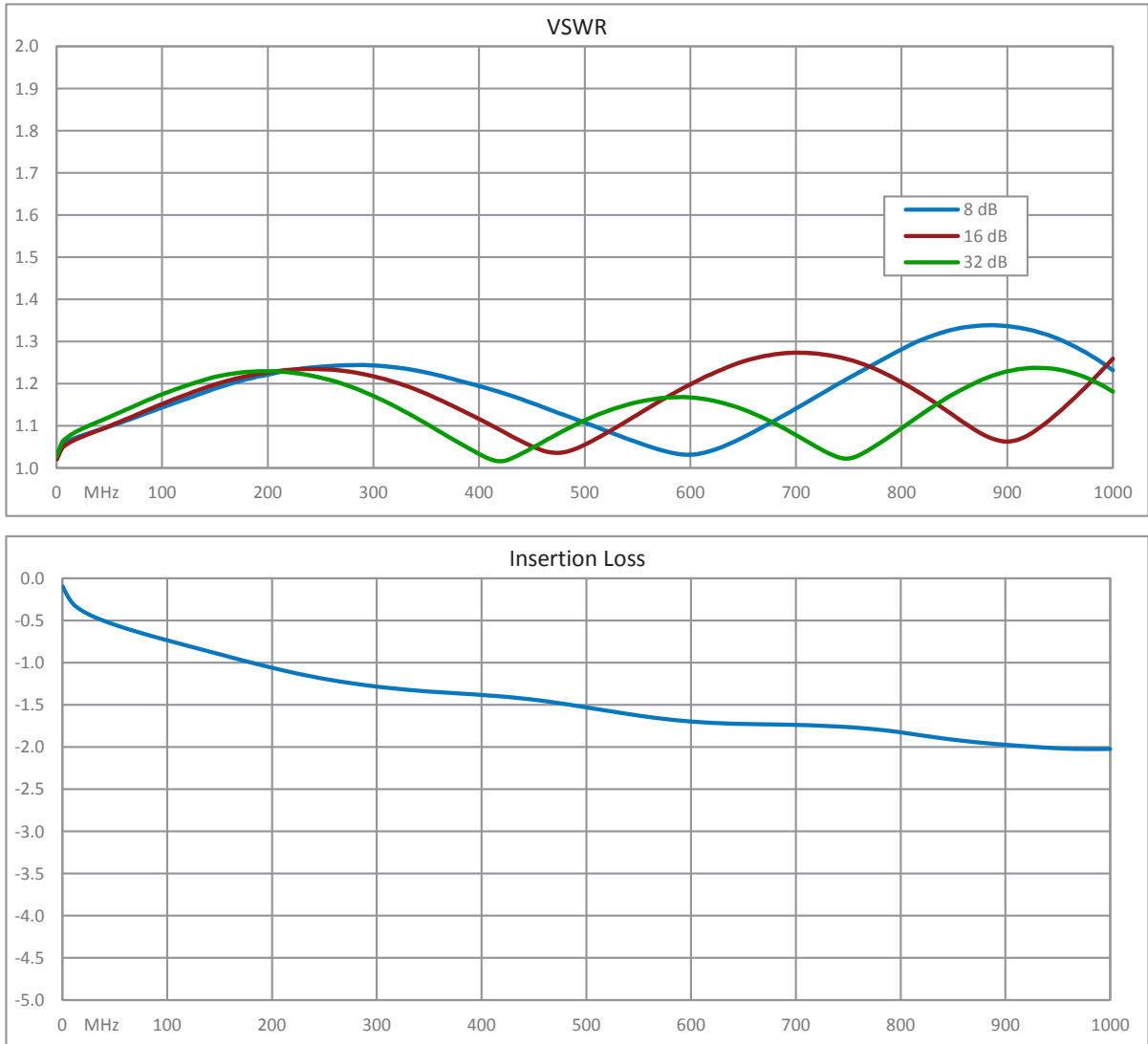
Typical Performance Data



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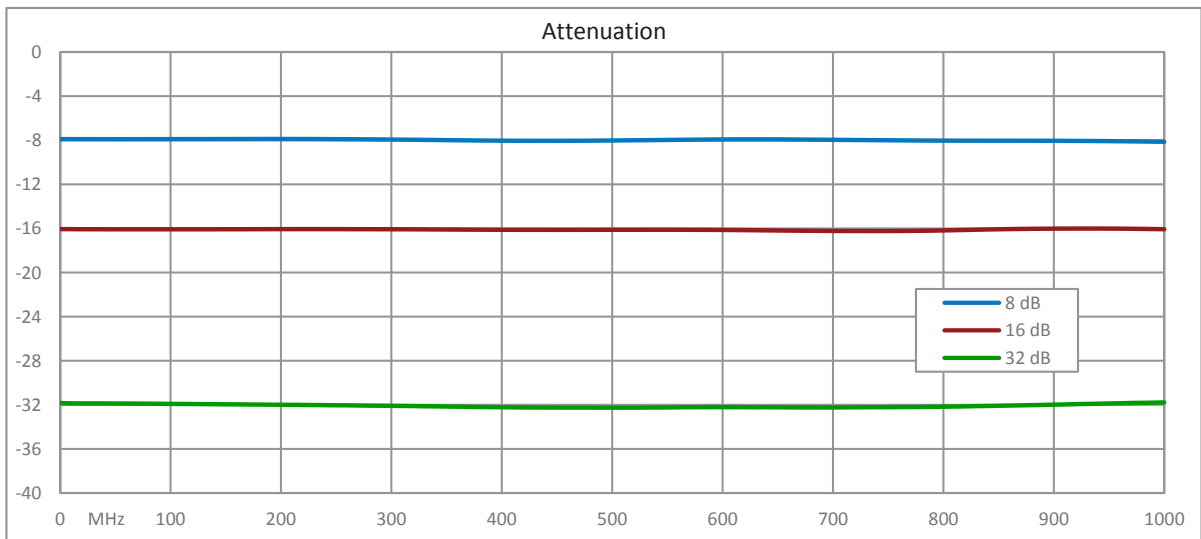
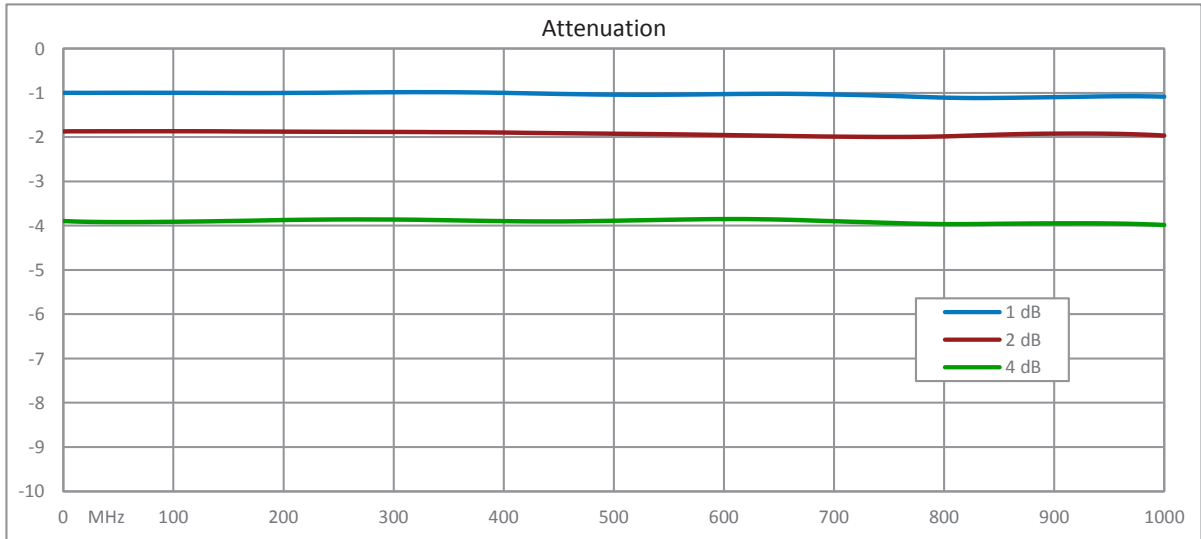
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6 Bit Relay Controlled Programmable Attenuator, 63 dB Up to 1,000 MHz, 75 Ohm, 1 dB Steps, +12V, F Female from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

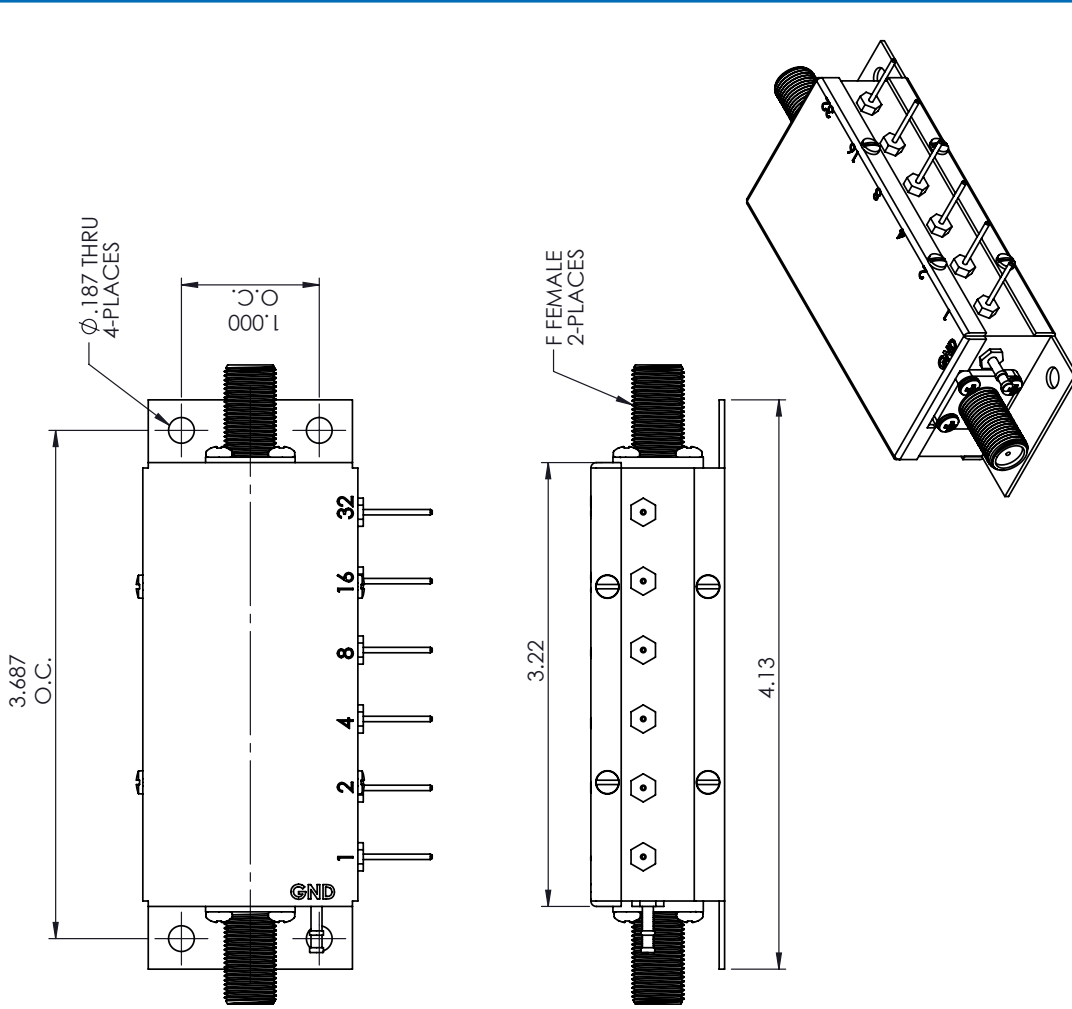
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [6 Bit Relay Controlled Programmable Attenuator, 63 dB Up to 1,000 MHz, 75 Ohm, 1 dB Steps, +12V, F Female PE70A8003](https://www.pasternack.com/63db-relay-controlled-f-female-f-female-1-watt-attenuator-pe70a8003-p.aspx)

URL: <https://www.pasternack.com/63db-relay-controlled-f-female-f-female-1-watt-attenuator-pe70a8003-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.

PE70A8003 CAD Drawing

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STANDARD TOLERANCES	
X	± 0.2
.XX	± 0.01
.XXX	± 0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



THE ENGINEER'S RP SOURCE

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DWG TITLE

PE70A8003

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 061217

SCALE N/A

SIZE A

0157