PASTERNACK®
THE ENGINEER'S RF SOURCE

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

TECHNICAL DATA SHEET PE70A8002

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 termperature is -20°C to +85°C.

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

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		2	GHz
Mean Attenuation Range	0		63.75	dB
Power Rating			+27	dBm
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 Power Supply @ 30 mA		12		Volts

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

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2017 Pasternack Enterprises All Rights Reserved

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

TECHNICAL DATA SHEET PE70A8002

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 1	1 to 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

Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications

Temperature

Operating Range	-20 to +85 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

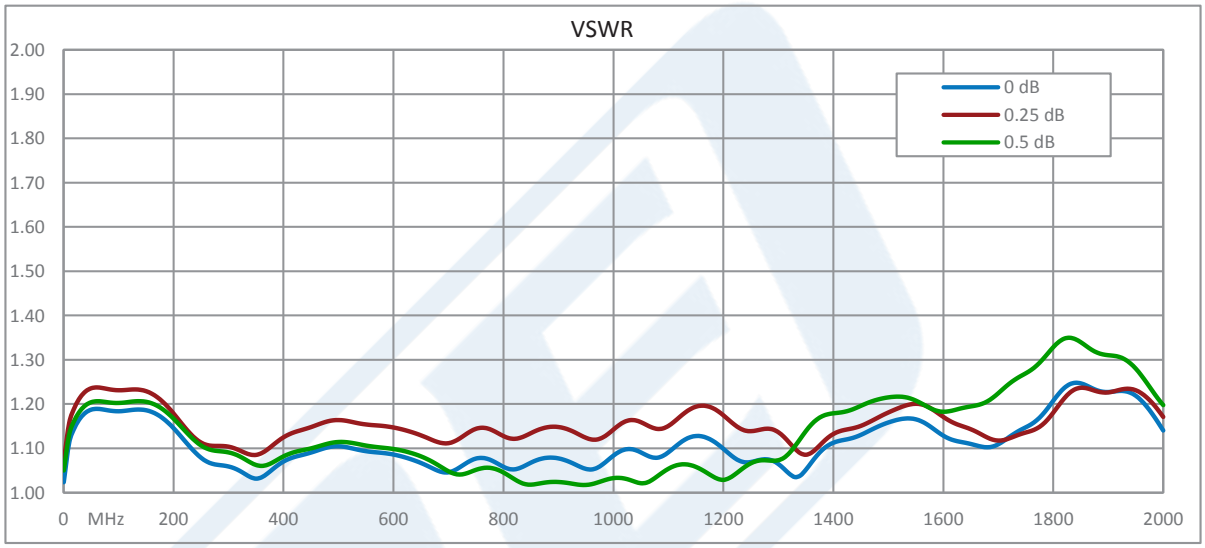
Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 8 Bit Relay Controlled Programmable Attenuator, 63.75 dB Up to 2 GHz, 0.25 dB Steps, +12V, SMA Female PE70A8002

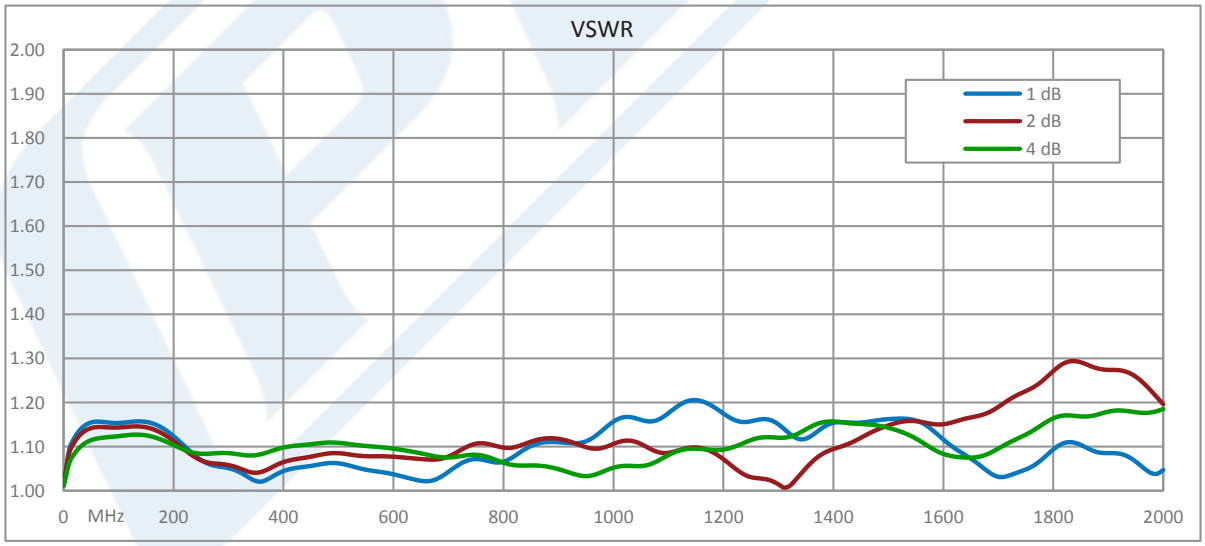
Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2017 Pasternack Enterprises All Rights Reserved

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

Performance Data





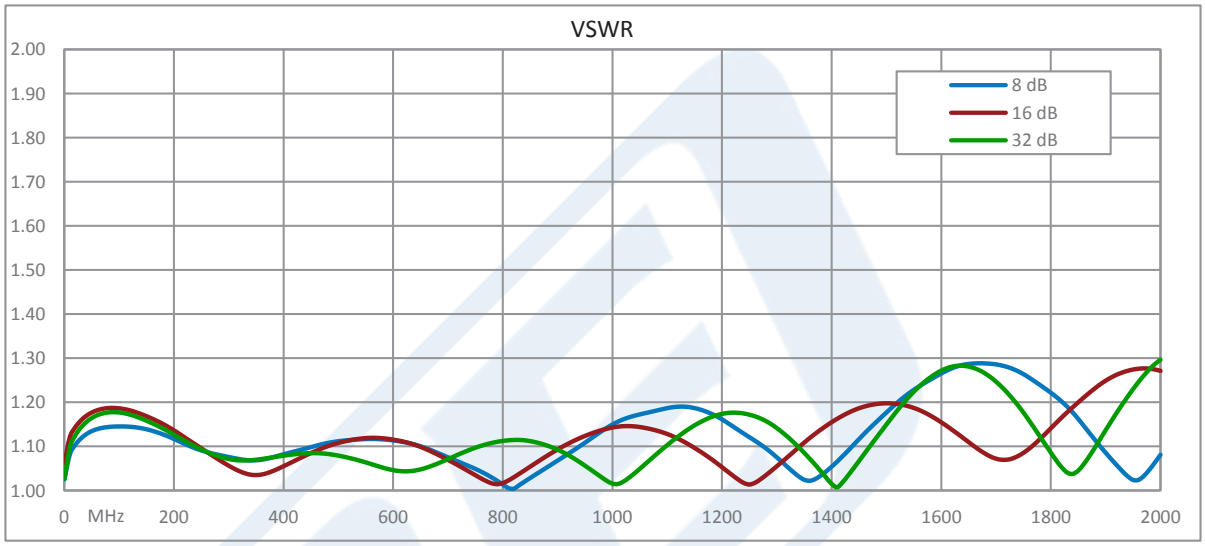
Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 8 Bit Relay Controlled Programmable Attenuator, 63.75 dB Up to 2 GHz, 0.25 dB Steps, +12V, SMA Female PE70A8002

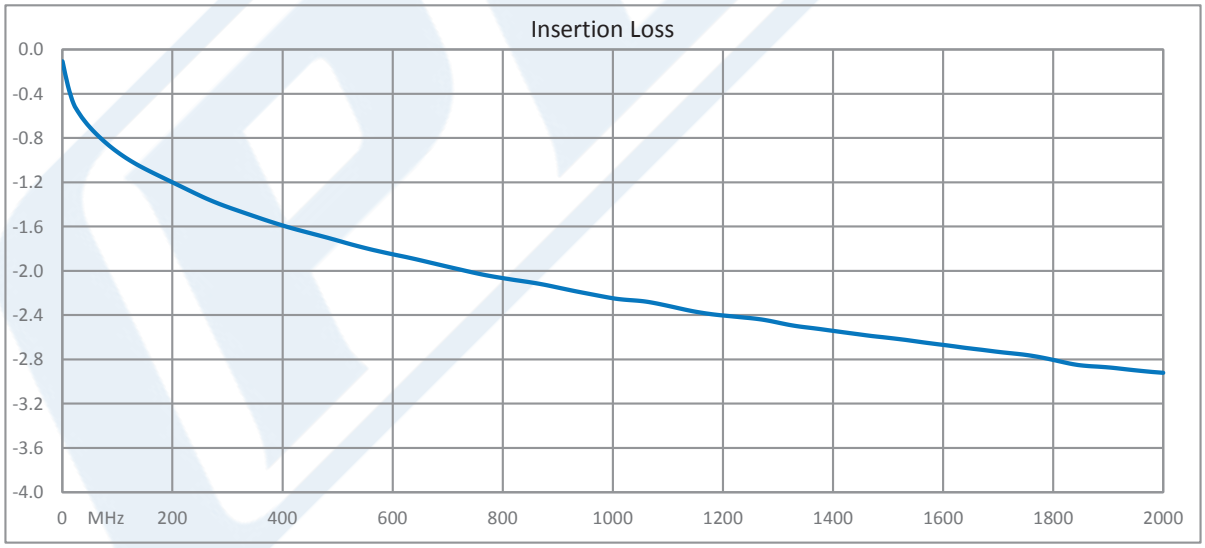
Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2017 Pasternack Enterprises All Rights Reserved

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

TECHNICAL DATA SHEET PE70A8002





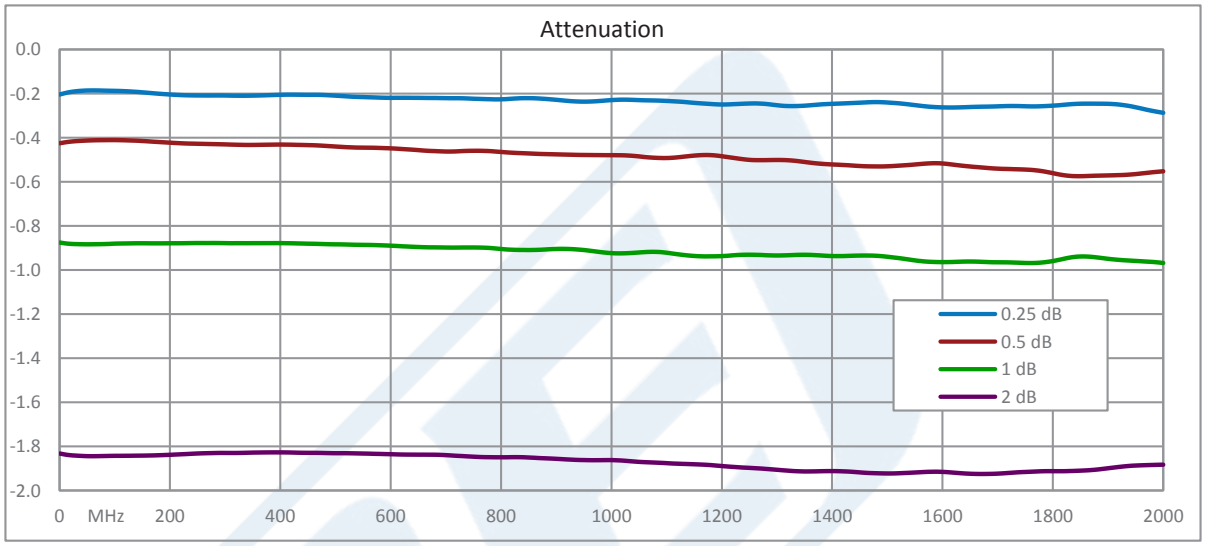
Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 8 Bit Relay Controlled Programmable Attenuator, 63.75 dB Up to 2 GHz, 0.25 dB Steps, +12V, SMA Female PE70A8002

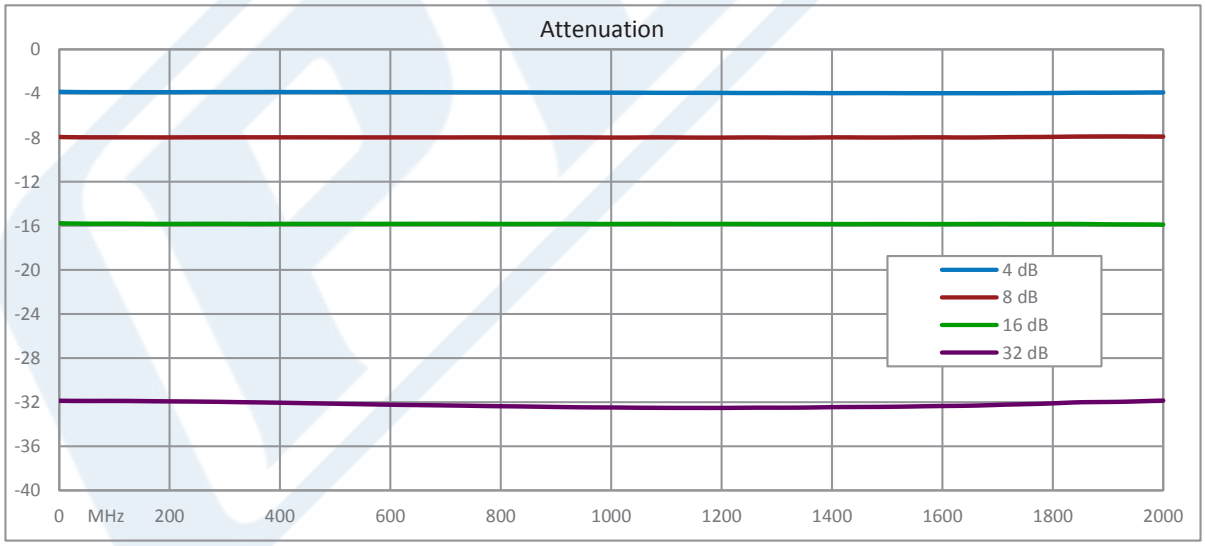
Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2017 Pasternack Enterprises All Rights Reserved

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

TECHNICAL DATA SHEET PE70A8002





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

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2017 Pasternack Enterprises All Rights Reserved

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

TECHNICAL DATA SHEET PE70A8002

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

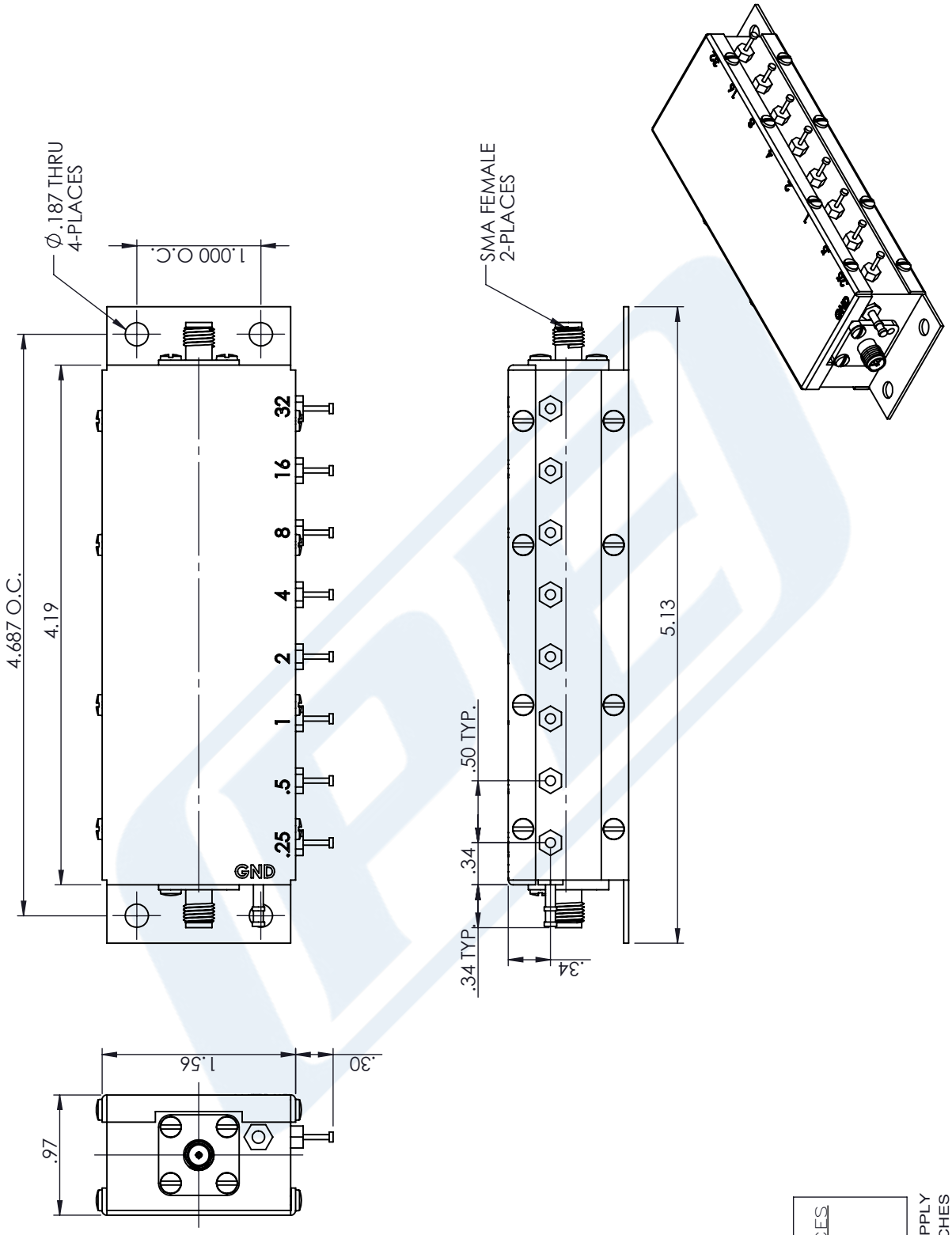
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such 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.

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2017 Pasternack Enterprises All Rights Reserved

PE70A8002 CAD Drawing

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



STANDARD TOLERANCES
.X ±0.2
.XX ±0.01
.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
PE70A8002

CAD FILE 041117 | SCALE N/A | SIZE A | 0157

CAGE CODE 53919

PASTERNACK®
THE ENGINEER'S RF SOURCE
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

© 2017 Pasternack Enterprises All Rights Reserved