



Bench-Top 95 dB Programmable TTL Controlled Attenuator, SMA Female to SMA Female, 1 dB Steps From 200 MHz to 6 GHz

TECHNICAL DATA SHEET

PE70A5013

The PE70A5013 is a 50 ohm Benchtop Programmable Step Attenuator assembly which operates over the frequency range of 200 MHz to 6000 MHz. This instrument has 2 individually controlled solid state programmable attenuators that each have a range from 0 to 95 dB. Insertion loss is 8.0 dB typical with maximum average input power of +20 dBm. Additional typical performance includes +/- 1.0 dB attenuation accuracy and switching speed of 1 microsecond. The DC supply is +12 Vdc with a 100-240 VAC AC/DC transformer included. Note that both attenuators can be connected in series to attain higher attenuation levels, but this performance is not guaranteed. The design features 2 lever switches on the front panel that includes digital readouts and SMA female RF input/output ports. Both switches are manually adjustable in 1 dB step sizes with either tap to step or hold to jog functions. These 2 switches can work simultaneously to perform manual handover tests. The design can also be command controlled remotely by executable test scripts using Ethernet (RJ45 Female) or RS-232 (serial control) connector interfaces. The Ethernet, RS-232, and manual interfaces can all be utilized simultaneously without blocking other users from using the test system. The firmware can handle up to 12 network connections. A comprehensive user manual is available to download.

Features

- 200 MHz to 6000 MHz Bandwidth
- Manual, Ethernet, or RS-232 Controlled
- 0-95 dB attenuation
- 1 dB Step Size
- 50 Ohms
- Switching Speed: 1 microsec
- 2 Individually Controlled Programmable Step Attenuators
- Insertion Loss: 8 dB typ
- Attenuation Accuracy: +/- 1 dB typ
- Max Average Pin: 20 dBm
- +12 Vdc supply (AC/DC Transformer Included)
- SMA female connectors
- Remote Control: Ethernet RJ45 port or RS-232 port in rear
- Downloadable User Manual

Applications

- Engineering Test & Measurement (ATE) Labs
- Communications Systems
- Military Radio
- Radar
- Wimax & 3G Simulators
- Wireless Fading Simulation

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.2		6	GHz
Mean Attenuation Range	0		95	dB
Insertion Loss		8	8.5	dB
Input VSWR			2:1	
Survival Power Average			+25	dBm
Power Handling Capacity			+20 CW	dBm
Accuracy of Attenuation				
1 dB to 3 dB		±0.5		dB
4 dB to 7 dB		±0.75		dB
8 dB to 11 dB		±1		dB
12 dB to 95 dB is ±1.25 dB or 4% whichever is greater				

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Bench-Top 95 dB Programmable TTL Controlled Attenuator, SMA Female to SMA Female, 1 dB Steps From 200 MHz to 6 GHz PE70A5013](#)



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Step Size	1	dB
Switching Time	1	µs

Mechanical Specifications
Size

Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications
Temperature

Operating Range	0 to +50 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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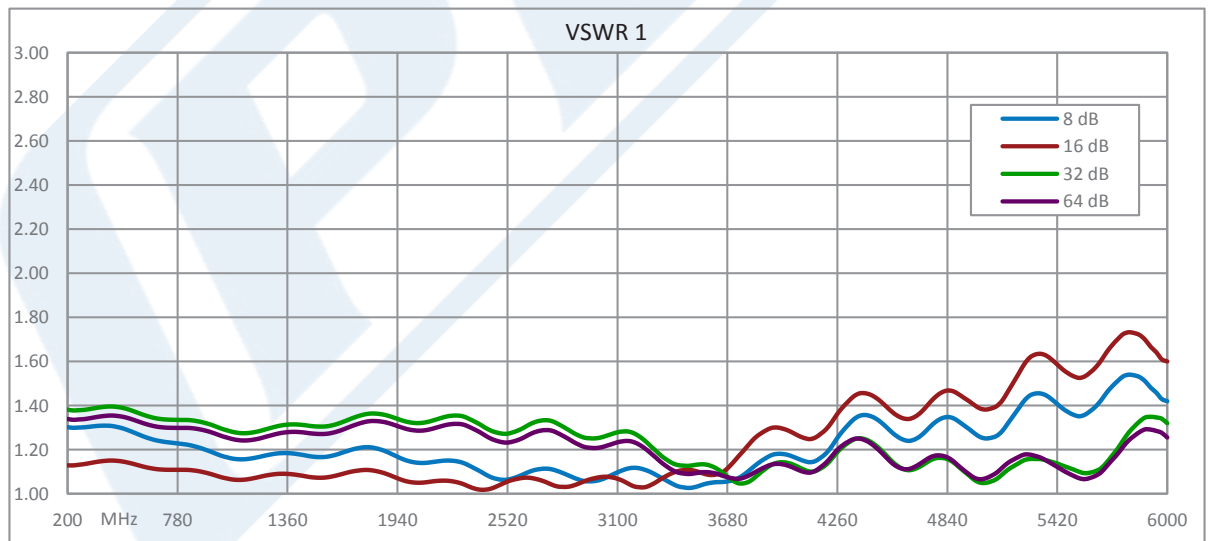
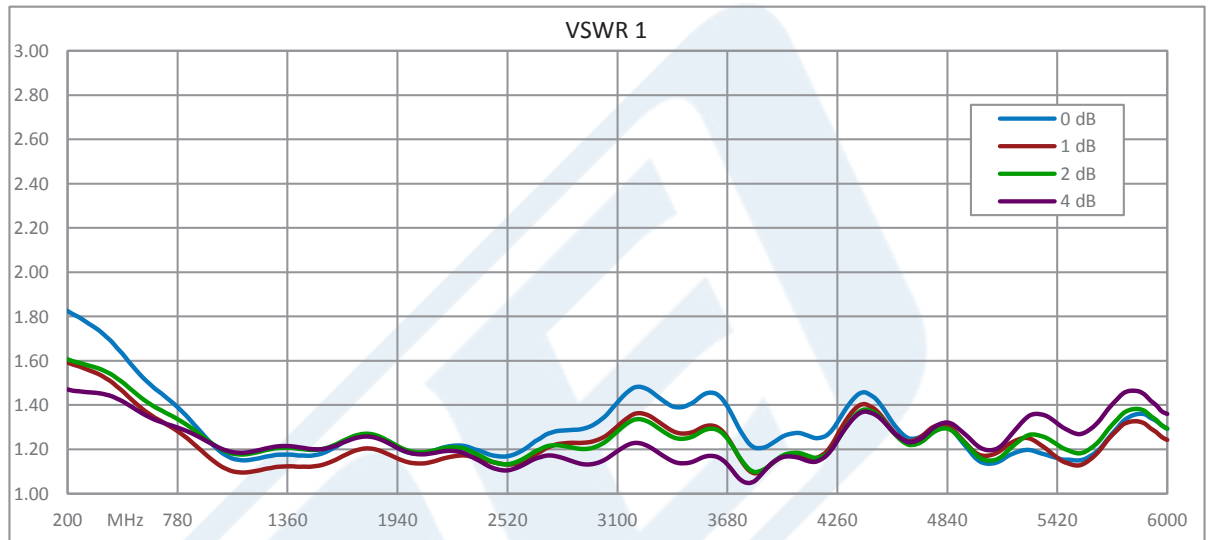


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Performance Data



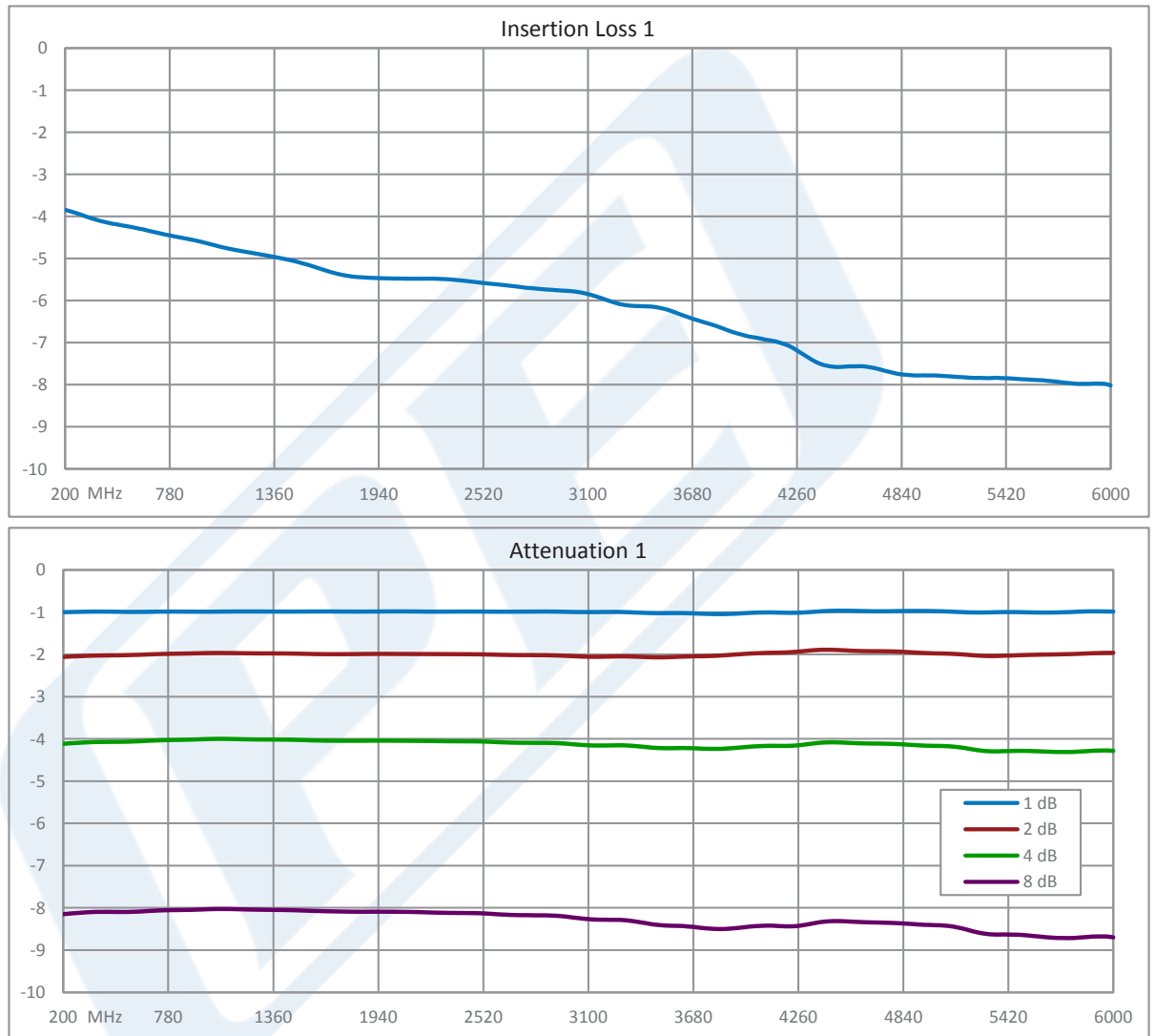
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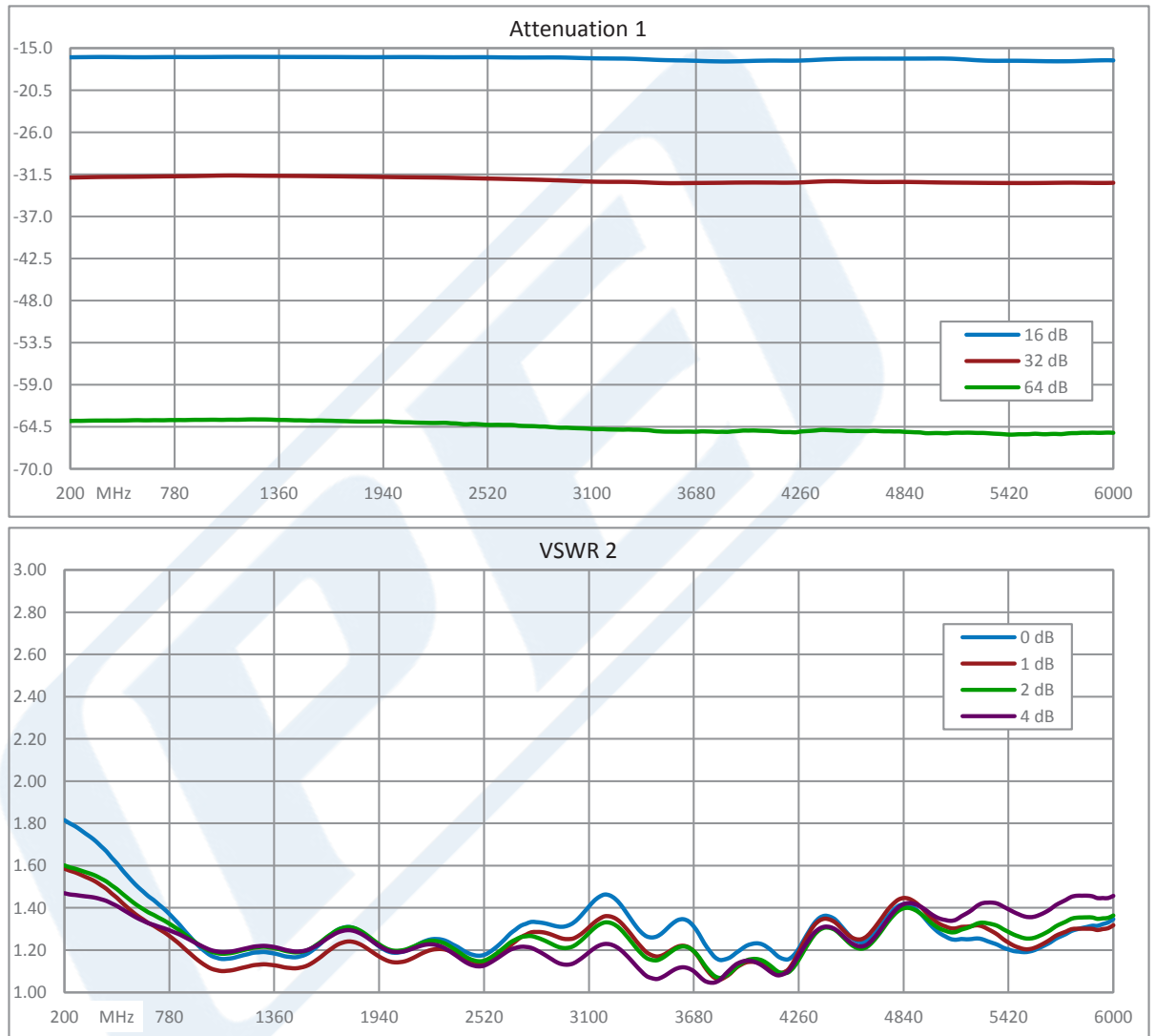
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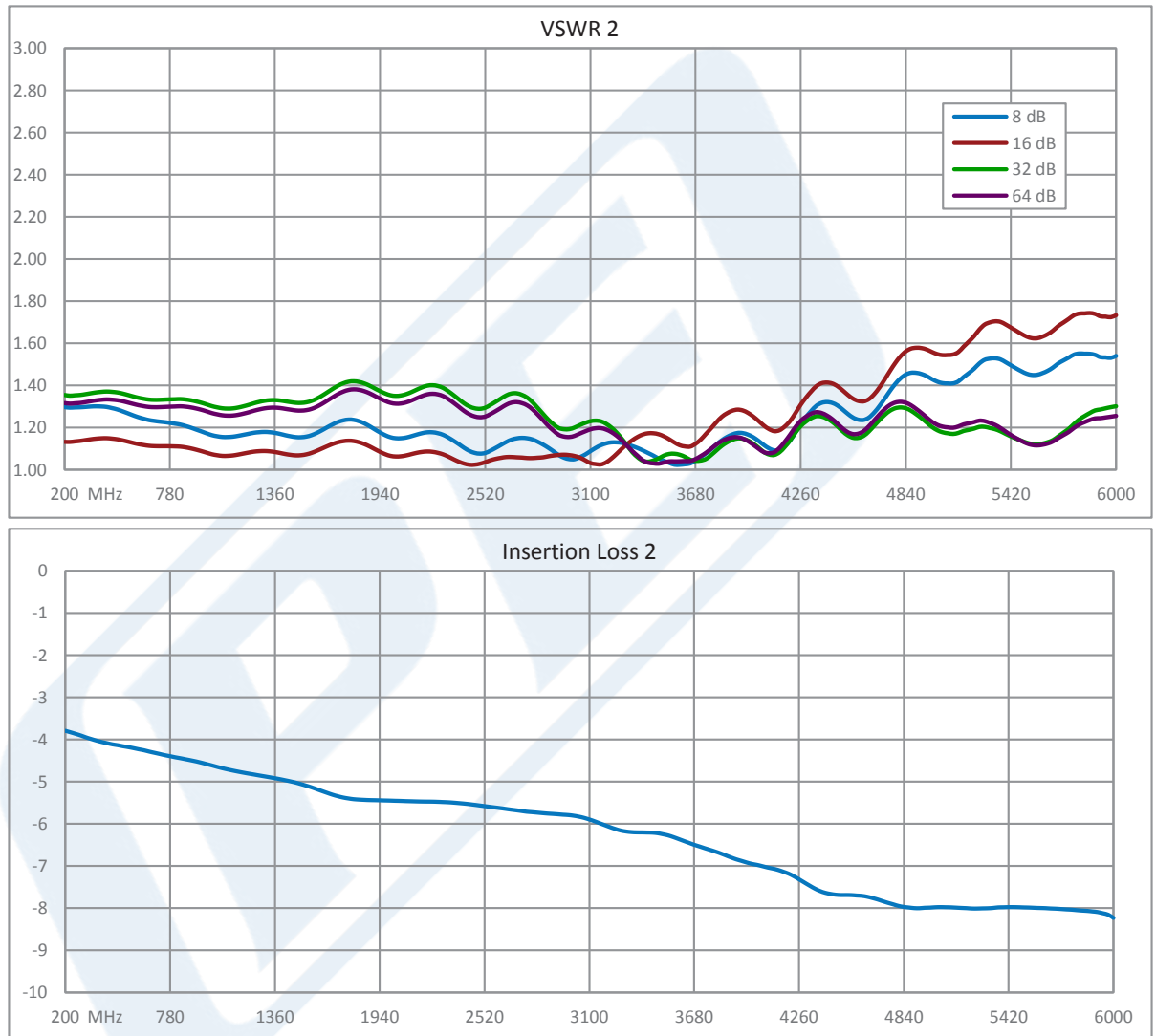
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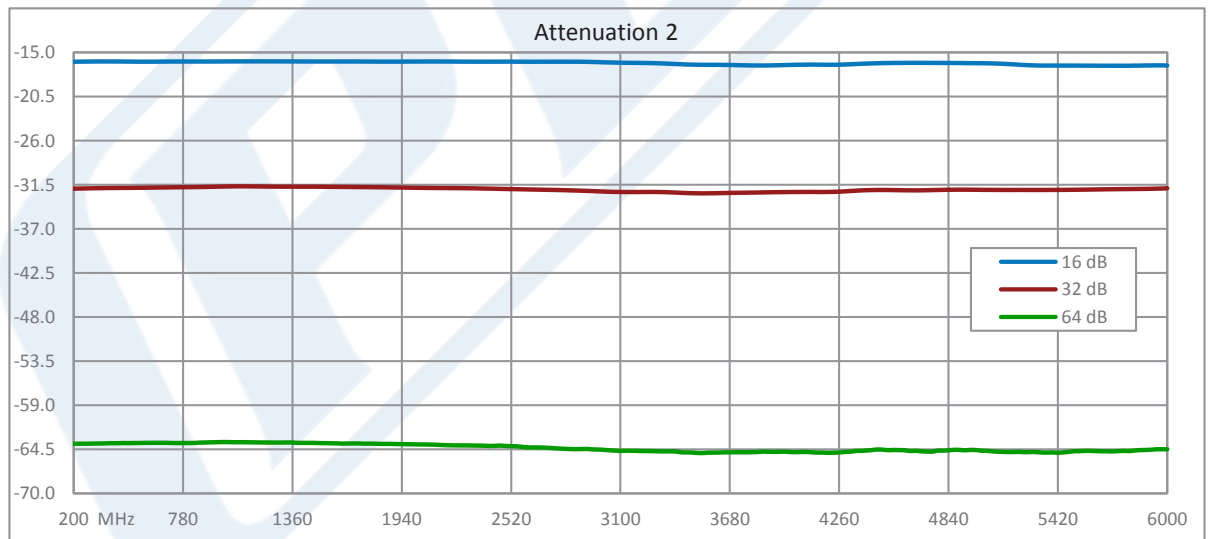
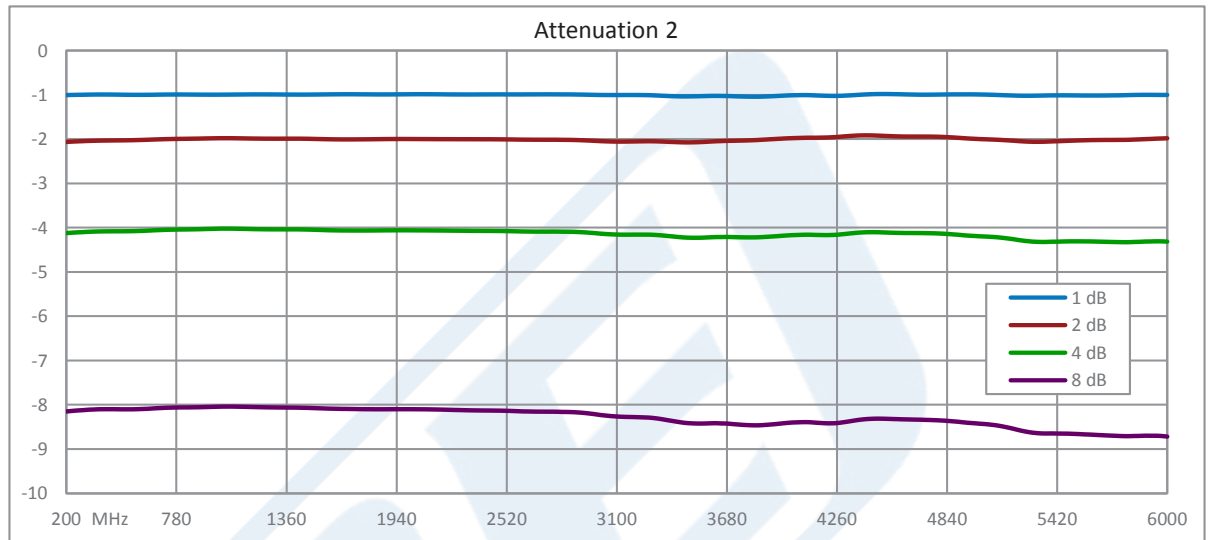
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Bench-Top 95 dB Programmable TTL Controlled Attenuator, SMA Female to SMA Female, 1 dB Steps From 200 MHz to 6 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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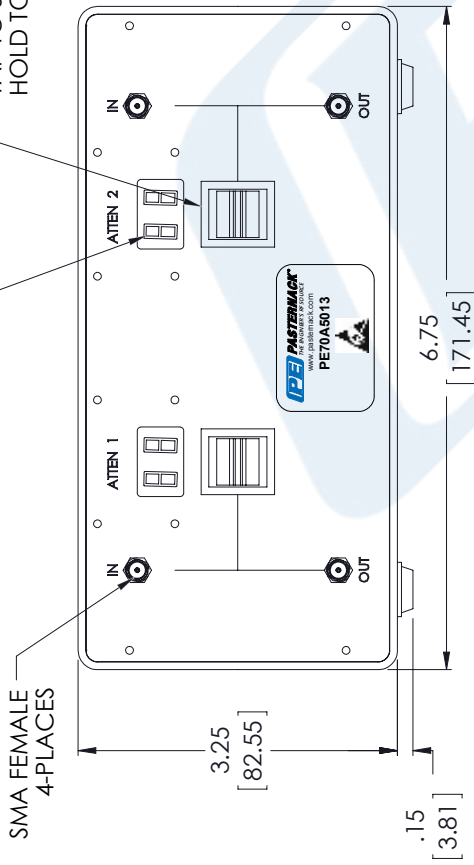
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such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

PE70A5013 CAD Drawing

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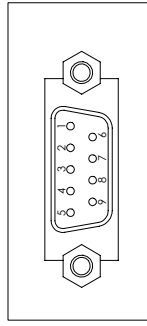
CURRENT ATTENUATION DISPLAYED
2-PLACES

MOMENTARY SWITCH FOR MANUAL CONTROL
2-PLACES
TAP TO STEP
HOLD TO JOG



SWITCHCRAFT 712A JACK
ACCEPTS .22INCHES Ø PLUG
SEE NOTE

DETAIL A



DETAIL A
DE-9S

PIN	FOUNCTION
1	CHASSIS GROUND
2	RECEIVED DATA
3	TRANSMITTED DATA
4	NO CONNECTION
5	SIGNAL GROUND
6	NO CONNECTION
7	RTS
8	CTS
9	NO CONNECTION

REAR VIEW

STANDARD TOLERANCES
 .XX ±0.010
 .XXX ±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

NOTE: THIS UNIT IS SUPPLIED WITH A 12 VOLT TRANSFORMER(100-240VAC)



PE PASTERNAK
 THE ENGINEER'S RF SOURCE
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 Website: www.pasternack.com | E-Mail: sales@pasternack.com

DWG TITLE
PE70A5013

CAGE CODE **53919**

CAD FILE 041317

SCALE N/A

SIZE A

CN_1408

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].