



50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz,
 Variable Gain Amplifier, 6.5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A7000

The PE15A7000 is a digitally controlled variable gain amplifier which operates from 100 MHz to 18.0 GHz. The gain level is 50 dB min with available attenuation ranging up to 60 dB, and output P1dB of 14 dBm typical. The unit has an attenuation control knob on the front panel, but also has an RS-232 control feature. By connecting a serial cable from a remote PC computer to the 9 pin d-subminiature connector at the rear of the unit, commands may be sent controlling the attenuation levels. A detailed operating procedure can be downloaded from the webpage. The 19 inch rack mount package size is 1U High 10 inch Deep, and operates over a temperature range of -40°C to +85°C. The RF Input and Output Connectors are SMA Female.

Features

- 1 U Rack Mounted Unit
- Frequency Range 0.1 to 18 GHz
- Gain 50 dB Minimum
- Variable Attenuation Range: 60 dB
- Gain Flatness ± 2.0 dB Typical
- OP1dB +14 dBm Typical
- RF Input/Output SMA Female Connectors
- RS-232 Control Feature

Applications

- Test Labs
- Instrumentation Test Rack
- Military Communications

Electrical Specifications (TA = +25°C)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.1		18	GHz
Small Signal Gain	50			dB
Gain Flatness (Up to 55 dB Attenuation)		± 2		dB
Attenuation Range	0		60	dB
Attenuation Step Size	1			dB
Output at 1 dB Compression Point		+14		dBm
Noise Figure		6.5		dB
Input VSWR		2:1		
Output VSWR		2:1		
Operating AC Voltage (Supplied with a fuse, 6 foot power cord, ON/OFF switch and LED power indicator)		120 VAC, 50/60 Hz		
Operating Temperature Range	-40		+85	°C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz, Variable Gain Amplifier, 6.5 dB NF, SMA PE15A7000](#)



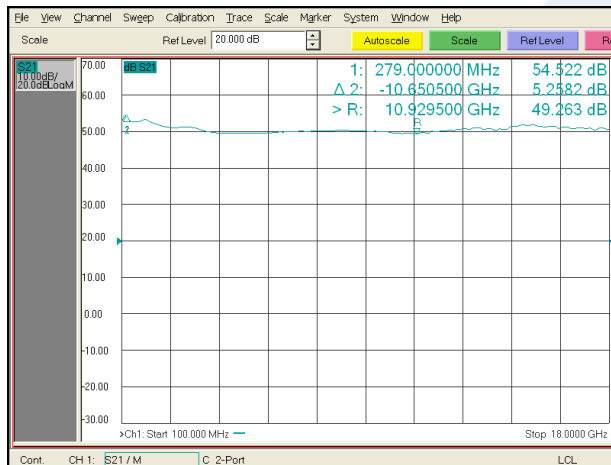
50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz,
Variable Gain Amplifier, 6.5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A7000

Typical Performance Data

Gain



Gain Flatness: ±2.6dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz, Variable Gain Amplifier, 6.5 dB NF, SMA PE15A7000](#)



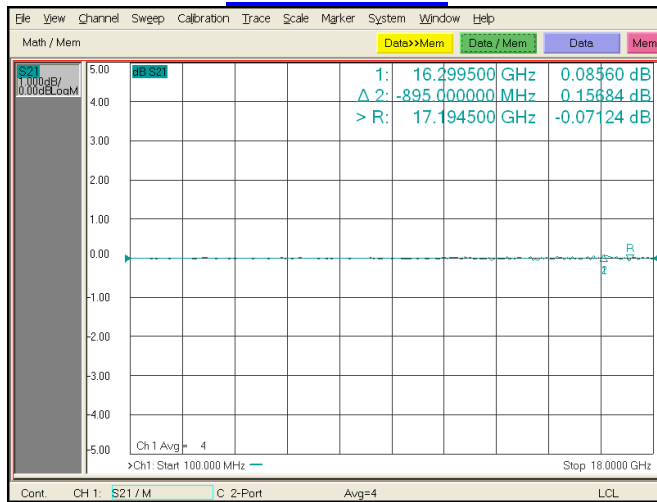


50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz,
Variable Gain Amplifier, 6.5 dB NF, SMA

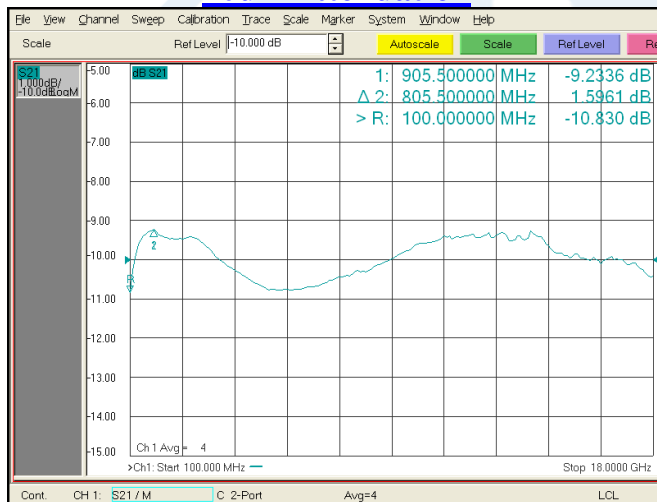
TECHNICAL DATA SHEET

PE15A7000

0dB Reference



10dB Attenuation



Gain Flatness: ±0.8dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz, Variable Gain Amplifier, 6.5 dB NF, SMA PE15A7000](#)



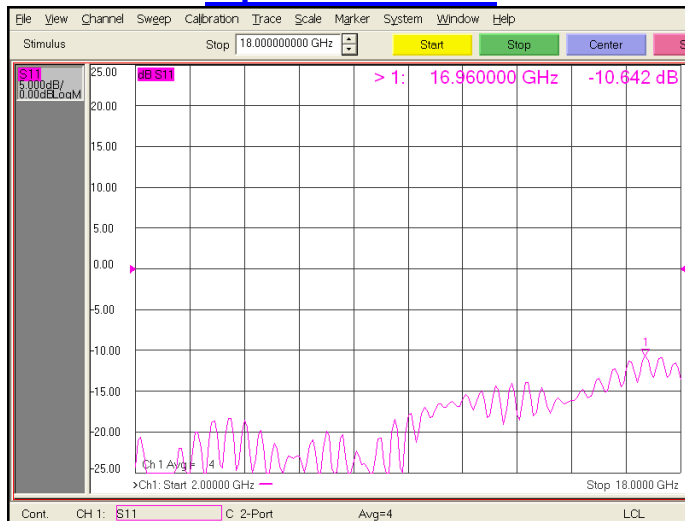


50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz,
Variable Gain Amplifier, 6.5 dB NF, SMA

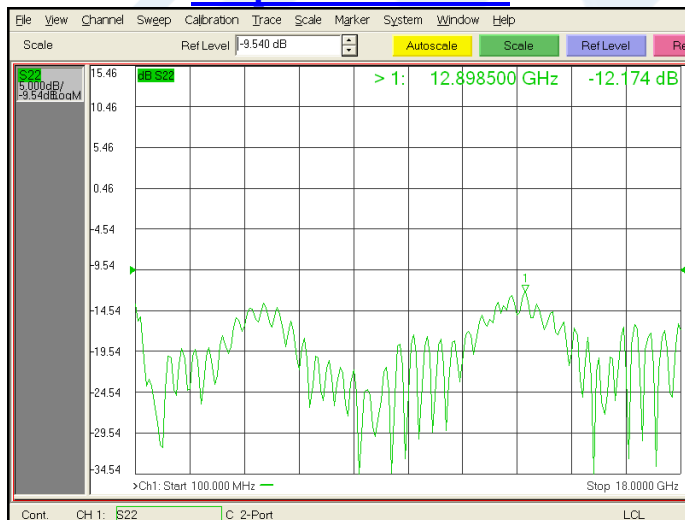
TECHNICAL DATA SHEET

PE15A7000

Input Return Loss



Output Return Loss



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz, Variable Gain Amplifier, 6.5 dB NF, SMA PE15A7000](#)



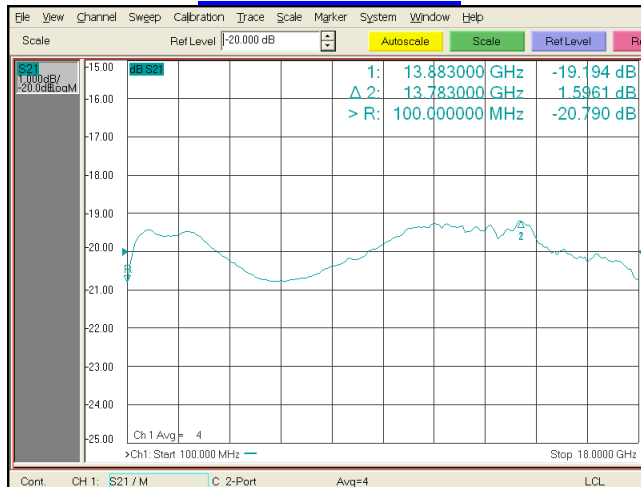


50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz,
Variable Gain Amplifier, 6.5 dB NF, SMA

TECHNICAL DATA SHEET

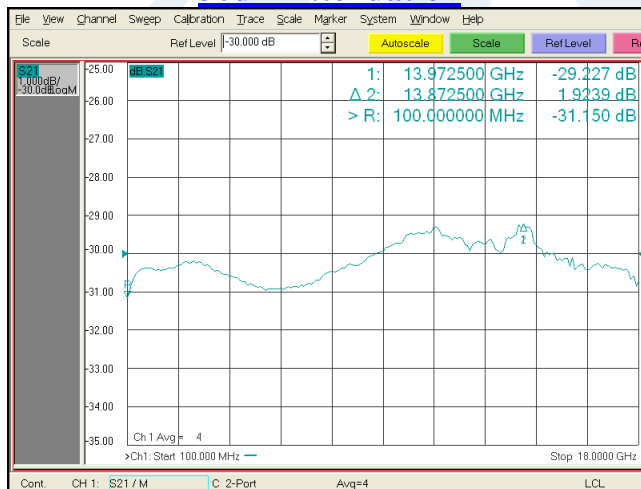
PE15A7000

20dB Attenuation



Gain Flatness: ±0.8dB

30dB Attenuation



Gain Flatness: ±0.96dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz, Variable Gain Amplifier, 6.5 dB NF, SMA PE15A7000](#)





50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz,
Variable Gain Amplifier, 6.5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A7000

50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz, Variable Gain Amplifier, 6.5 dB NF, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

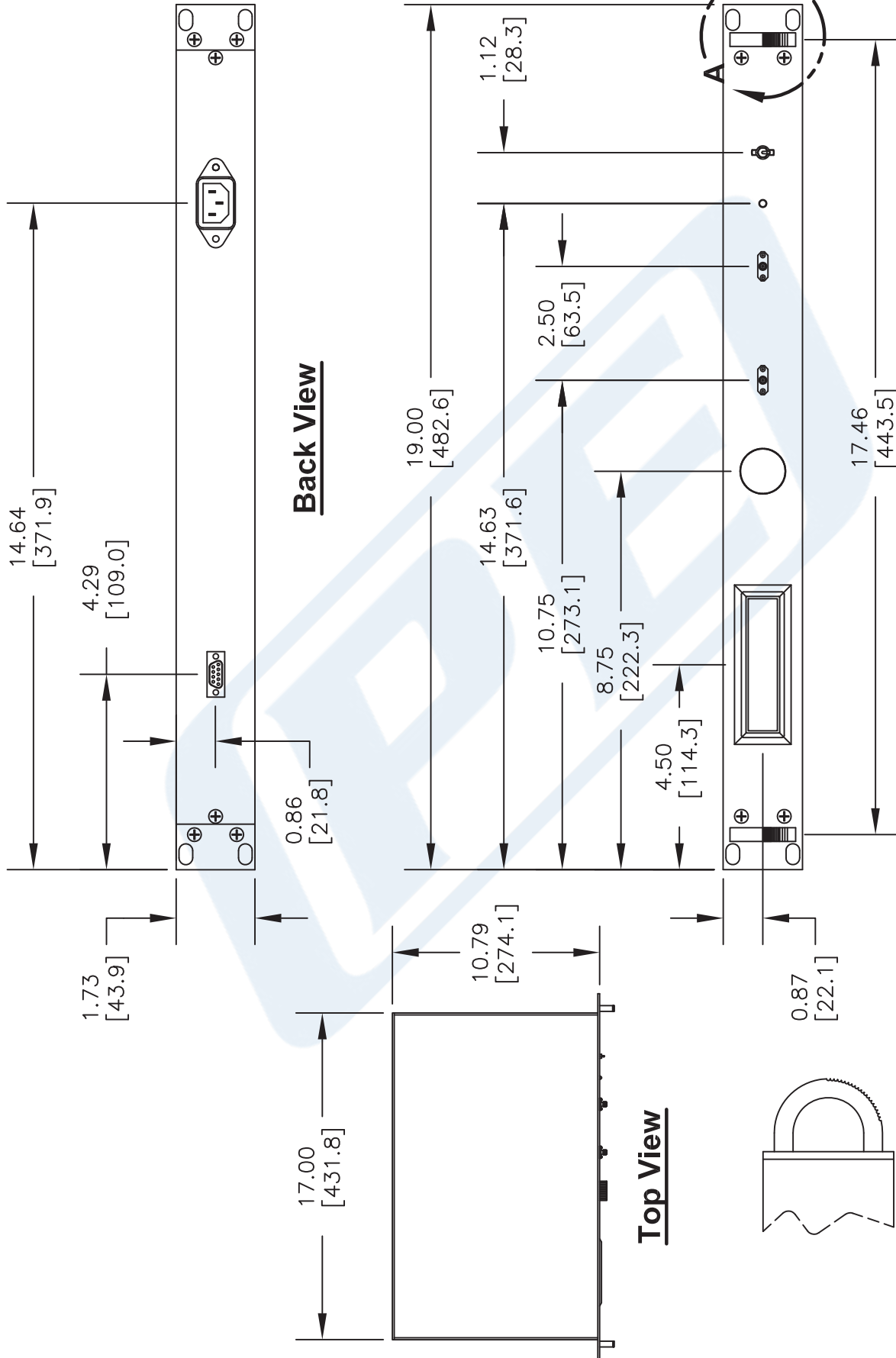
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz, Variable Gain Amplifier, 6.5 dB NF, SMA PE15A7000](http://www.pasternack.com/50-db-gain-14-dbm-p1db-100-mhz-to-18-ghz-variable-gain-amplifier-6.5-db-nf-sma-pe15a7000)

URL: <http://www.pasternack.com/50-db-gain-18-ghz-variable-gain-amplifier-6.5-db-sma-pe15a7000-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.

PE15A7000 CAD Drawing

50 dB Gain, 14 dBm P1dB, 100 MHz to 18 GHz, Variable Gain Amplifier, 6.5 dB NF, SMA



Side of View A

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
PE15A7000

FSCM NO. 53919

SCALE N/A

SIZE A

CAD FILE 031914

150

PE PASTERNAK
 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