



10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 4.5 dB NF, SMA

## TECHNICAL DATA SHEET

PE15A3900

The PE15A3900 is a broadband amplifier covering 50 MHz to 18 GHz. The amplifier has a 12 dB of Typical Gain, a Gain Flatness of +/- 2.5 dB typ and a P1dB of +10 dBm typ. The unit uses a USB connector for power.

### Features

- 0.05 GHz to 18 GHz Frequency Range
- P1dB: 10 dBm typ
- Small Signal Gain: 12 dB typ
- Gain Flatness: ±2.5 dB typ
- Noise Figure: 4.5 dB typ
- 50 Ohm Input and Output Matched
- Unconditionally Stable
- USB type a plug DC Positive Supply
- Built-in Voltage Regulator

### Applications

- Laboratory Applications
- R&D Labs
- Military Radio
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Wireless Communication
- Microwave Radio Systems
- Cellular Base Stations
- Low Noise Amplifier
- General Purpose Amplification
- General Purpose Wireless
- Wideband Gain Block
- IF Amplifier/RF Driver Amplifier
- RF Wideband Front Ends
- RF Pre-amplification

### Electrical Specifications (TA = +25°C)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.05		18	GHz
Gain		12		dB
Gain Flatness		±2.5		dB
Output at 1 dB Compression Point		+10		dBm
Noise Figure		4.5		dB
Input VSWR		2.3:1		
Output VSWR		2.3:1		
Operating Temperature Range (OTR)	-40		+85	°C

### Environmental Specifications

#### Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +125 deg C

### Compliance Certifications (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

Not RoHS Compliant

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 4.5 dB NF, SMA PE15A3900](#)



10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled  
Broadband Amplifier, 12 dB Gain, 4.5 dB NF, SMA

## TECHNICAL DATA SHEET

PE15A3900

### 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 4.5 dB NF, SMA PE15A3900](#)

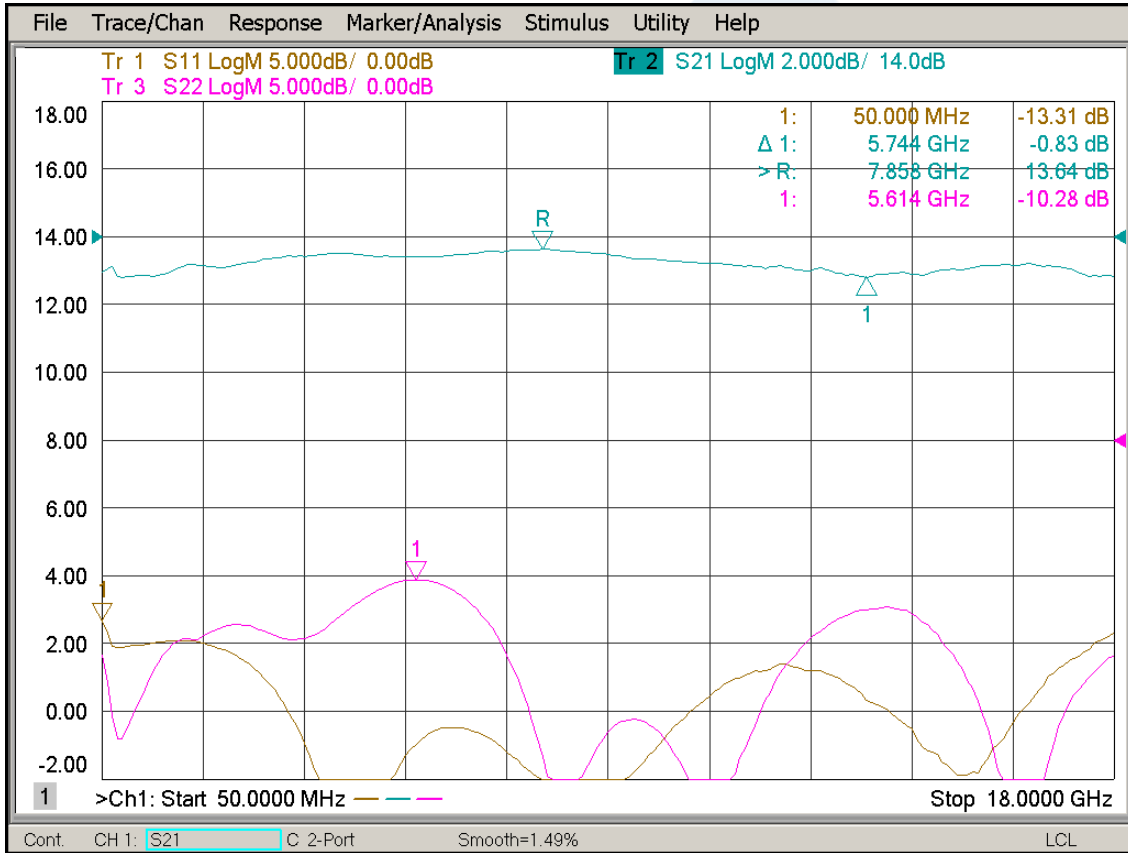


10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 4.5 dB NF, SMA

TECHNICAL DATA SHEET PE15A3900

Typical Performance Data

Gain & Return Loss



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 4.5 dB NF, SMA PE15A3900](#)





10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled  
Broadband Amplifier, 12 dB Gain, 4.5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A3900

Noise Figure



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 4.5 dB NF, SMA PE15A3900](#)

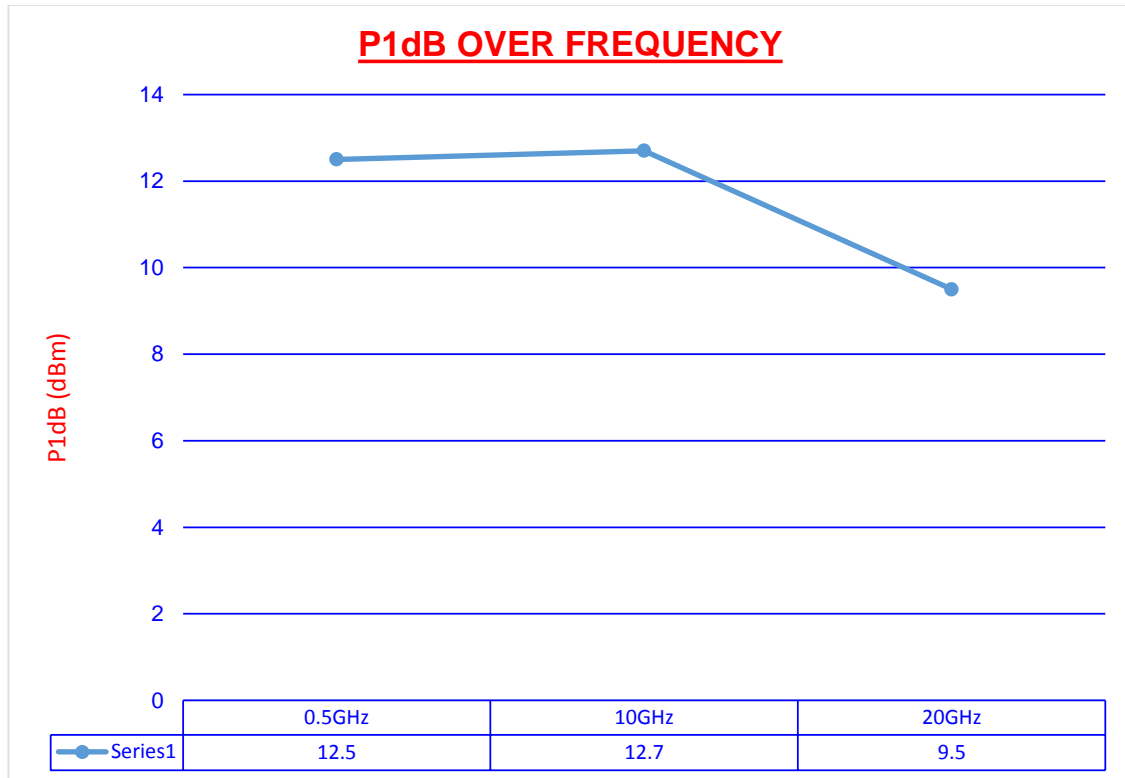




10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 4.5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A3900



10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 4.5 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: [10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 4.5 dB NF, SMA PE15A3900](http://www.pasternack.com/18-ghz-broadband-usb-amplifier-12-db-gain-4.5-db-nf-sma-pe15a3900)

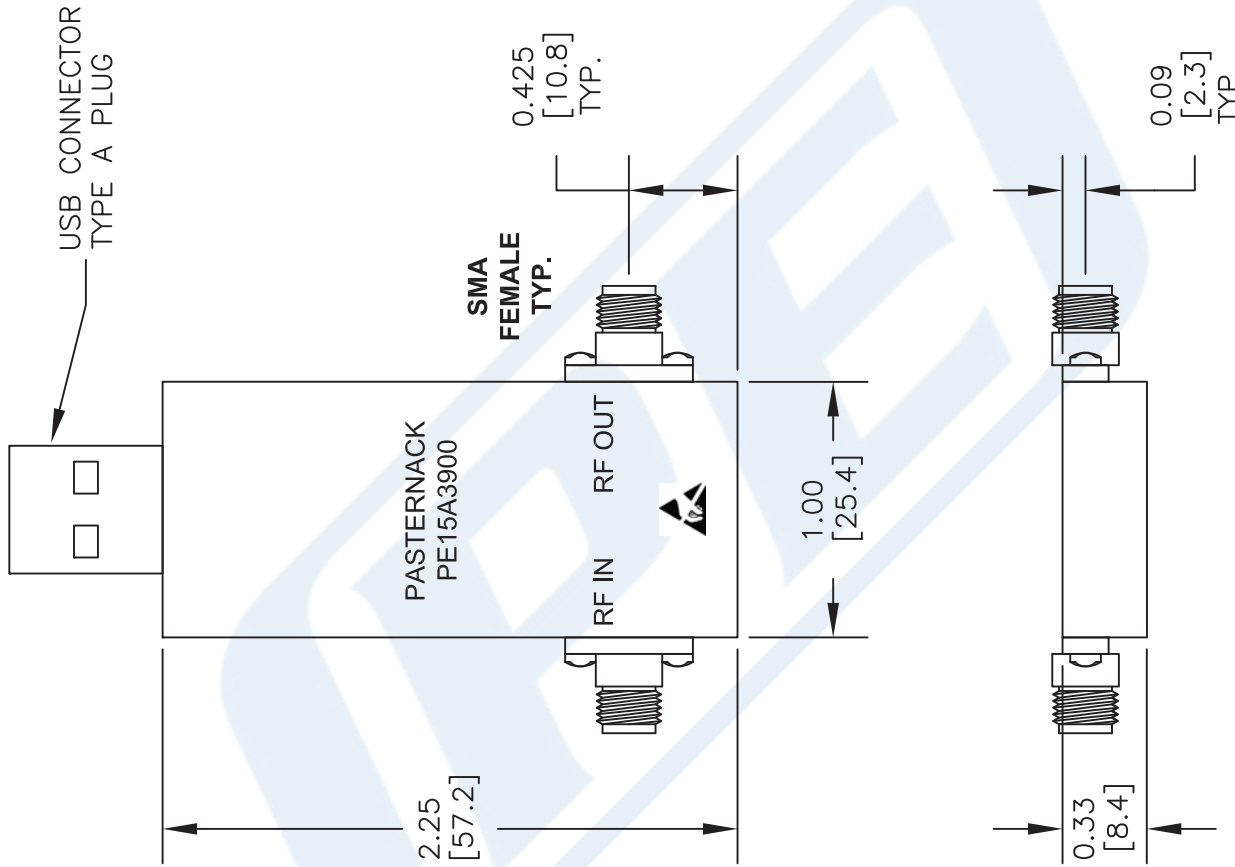
URL: <http://www.pasternack.com/18-ghz-broadband-usb-amplifier-12-db-gain-4.5-db-sma-pe15a3900-p.aspx>

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.



# PE15A3900 CAD Drawing

10 dBm P1dB, 50 MHz to 18 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 4.5 dB NF, SMA



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  
**PE15A3900**

FSCM NO. 53919

SCALE N/A

SIZE A

CAD FILE 111714

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