



500 mW P1dB, 6 GHz to 12 GHz, Medium Power
Broadband Amplifier, 16 dB Gain, 37 dBm IP3, SMA

TECHNICAL DATA SHEET

PE15A4044

The PE15A4044 is a broadband coaxial power amplifier, operating in the 6.0 to 12.0 GHz frequency range. The amplifier offers 27 dBm of P1dB min and 17 dB small signal gain min, with the gain flatness of ± 2.0 dB max. This power amplifier requires only a single positive DC supply, in unconditionally stable, operates over the temperature range of -20°C to 85°C , and is Hermetically sealed.

Features

- 6.0 to 12.0 GHz Frequency Range
- P1dB: 27 dBm min
- Small Signal Gain: 17 dB min
- Gain Flatness: ± 2.0 dB max
- 50 Ohm Input and Output Matched
- -20 to $+85^{\circ}\text{C}$ Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in DC Voltage Regulator

Applications

- Laboratory Applications
- R&D Labs
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communications
- Wireless Communications
- Unmanned Systems
- Microwave Radio Systems
- Low Noise Amplifier
- General Purpose Amplification
- RF Front Ends

Electrical Specifications (TA= 25°C , VDC1 = 12 Vdc)

Description	Minimum	Typical	Maximum	Units
Frequency Range	6		12	GHz
Gain	15	16		dB
Gain Flatness		± 0.6		dB
Output at 1 dB Compression Point	+27			dBm
Output 3 rd Intercept Point		+37		dBm
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage 1	11	12	15	Volts
Operating DC Current		400	450	mA
Operating Temperature Range (OTR)	-30		+70	$^{\circ}\text{C}$

Mechanical Specifications

Size

Length	1.083 in [27.51 mm]
Width	1.093 in [27.76 mm]
Height	0.382 in [9.7 mm]
Weight	0.069 lbs [31.3 g]
Input Connector	SMA Female
Output Connector	SMA Female

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [500 mW P1dB, 6 GHz to 12 GHz, Medium Power Broadband Amplifier, 16 dB Gain, 37 dBm IP3, SMA PE15A4044](#)



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Environmental Specifications

Temperature

Operating Range

-30 to +70 deg C

Compliance Certifications (visit www.Pasternack.com for current document)

Not RoHS Compliant

REACH Compliant

12/17/2015

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.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.

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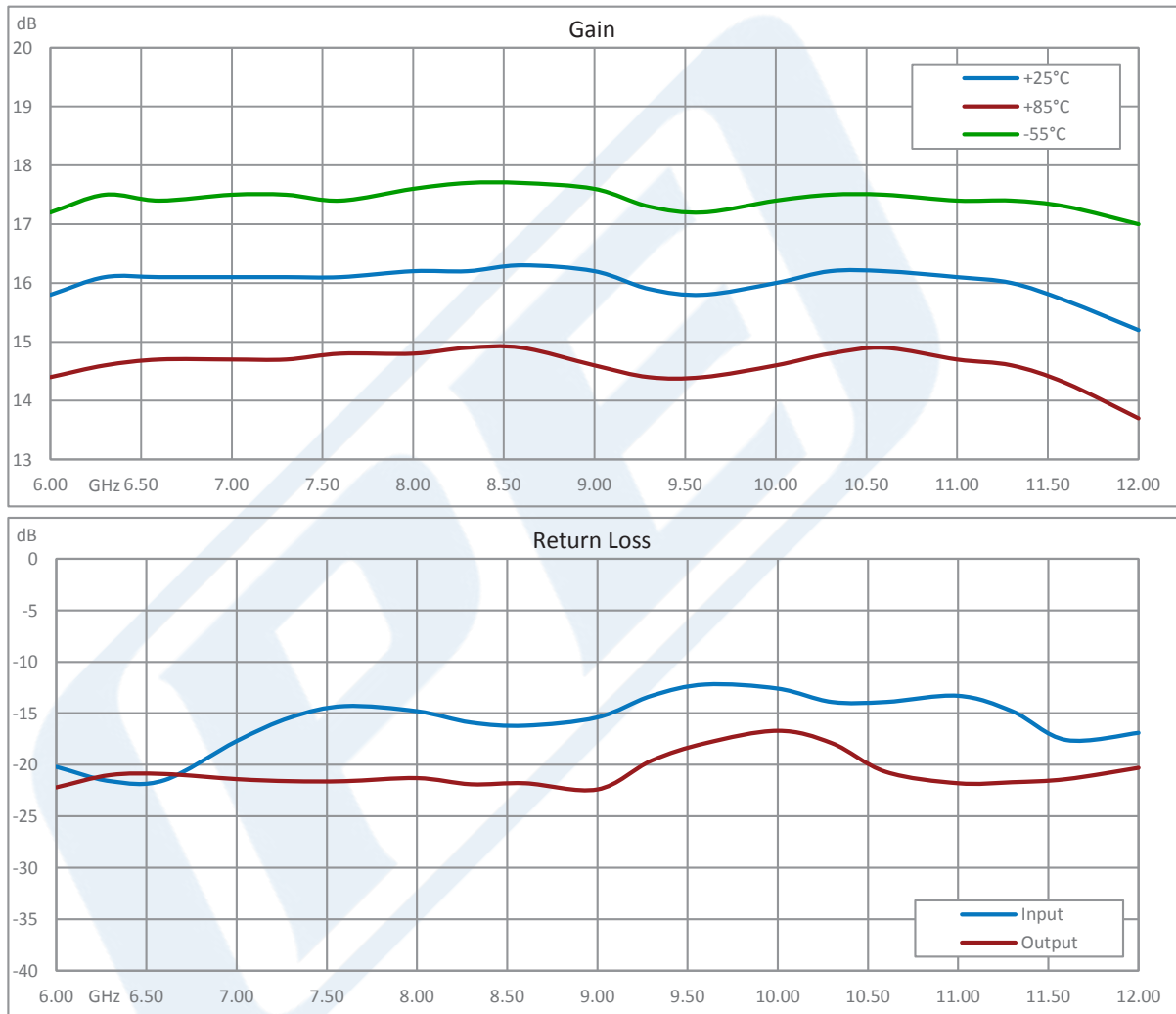


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Typical Performance Data



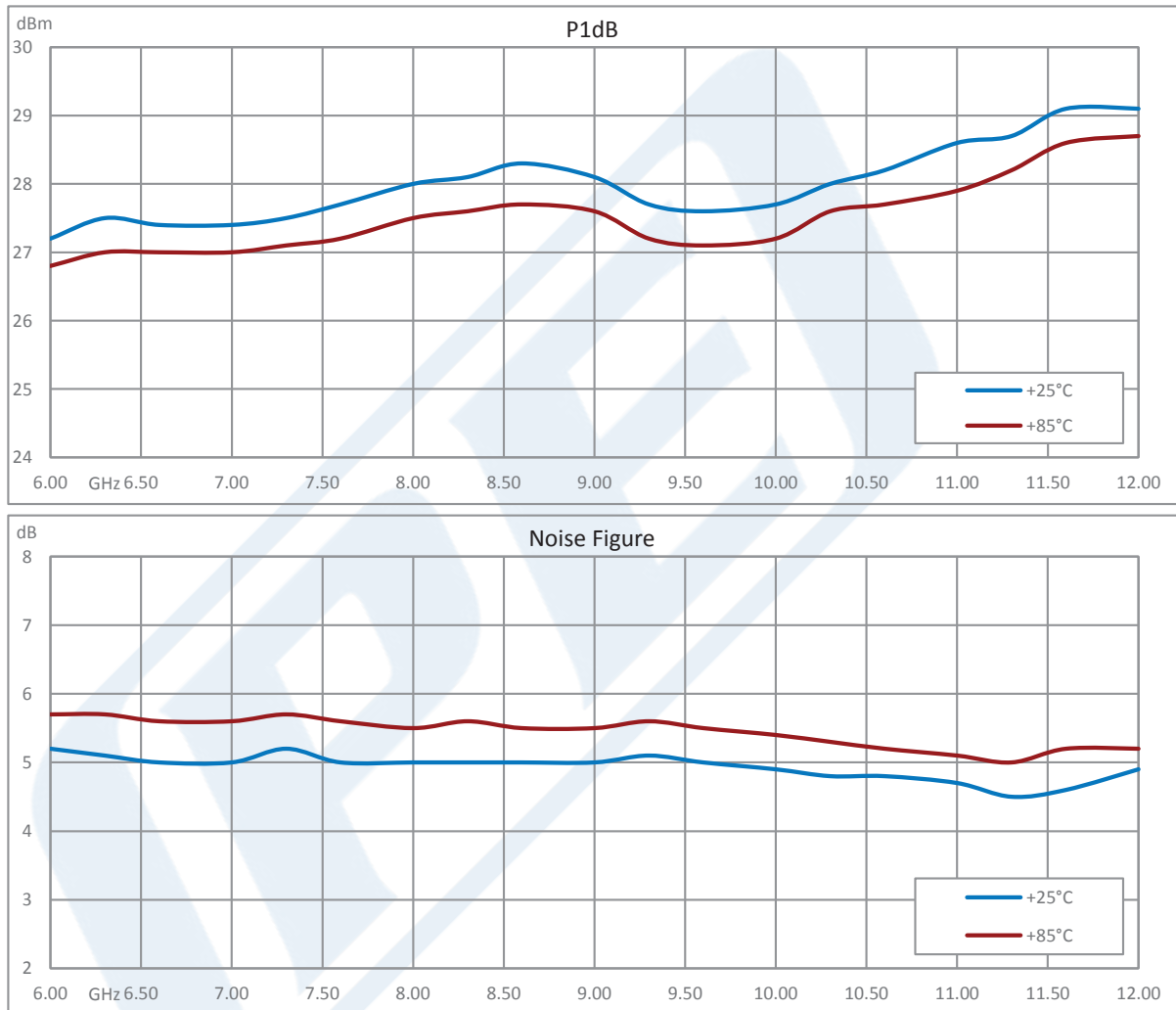
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500 mW P1dB, 6 GHz to 12 GHz, Medium Power Broadband Amplifier, 16 dB Gain, 37 dBm IP3, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

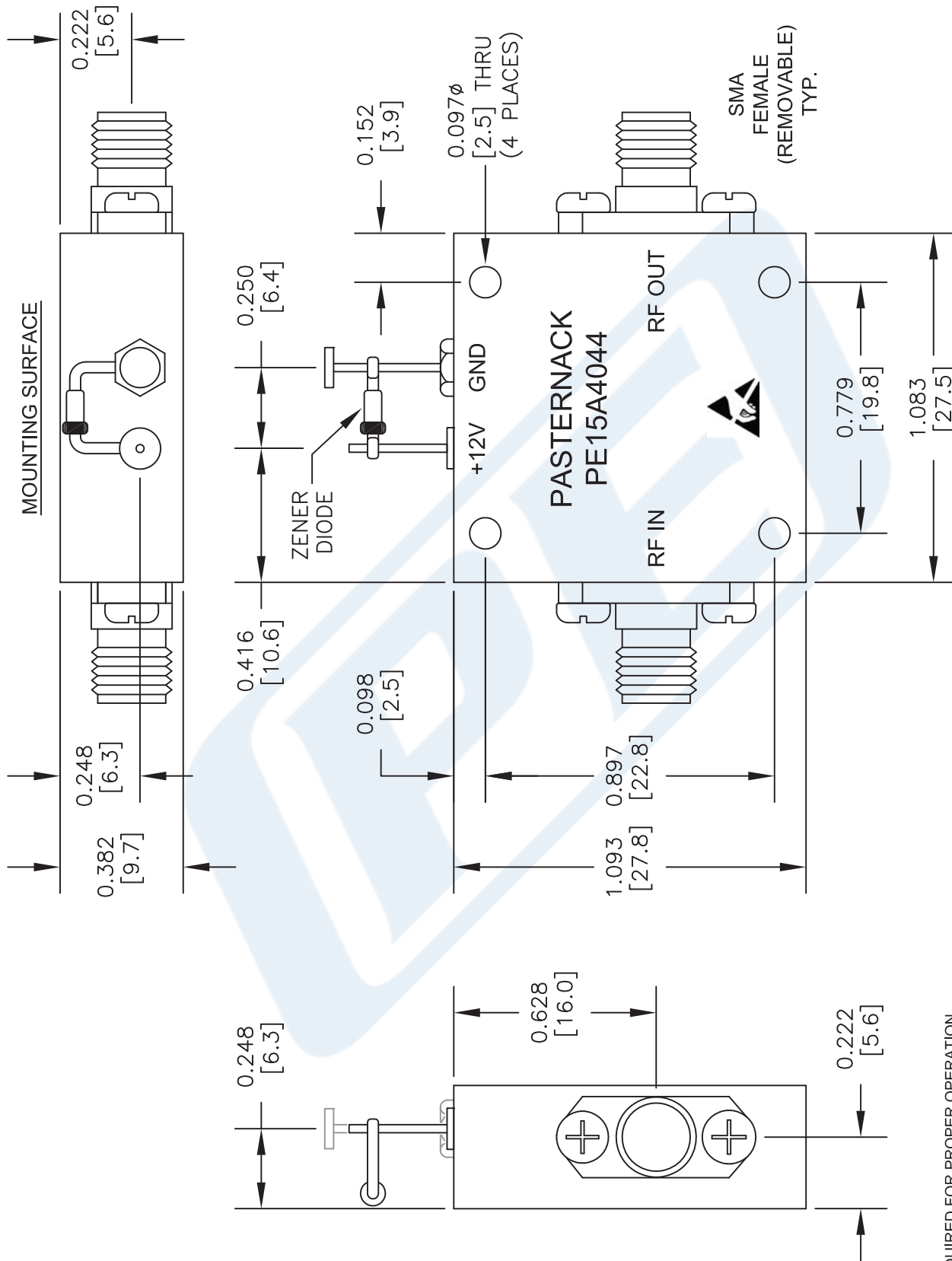
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

PE15A4044 CAD Drawing

500 mW P1dB, 6 GHz to 12 GHz, Medium Power Broadband
Amplifier, 16 dB Gain, 37 dBm IP3, SMA



NOTE:
HEAT SINK REQUIRED FOR PROPER OPERATION,
UNIT IS COOLED BY CONDUCTING TO HEAT SINK.

PE PASTERNAK®
THE ENGINEER'S RF SOURCE
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DWG TITLE
PE15A4044

FSCM NO. 53919

CAD FILE 031616

SCALE N/A

SIZE A

2233

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].