



## 44 dB Gain, 3 Watt P1dB, 2 GHz to 6 GHz, Medium Power Broadband Amplifier, 45 dBm IP3, 4.5 dB NF, SMA

### TECHNICAL DATA SHEET

PE15A4043

The PE15A4043 is a broadband coaxial power amplifier, operating in the 2.0 to 6.0 GHz frequency range. The amplifier offers 35 dBm of P1dB min and 44 dB small signal gain typ, with the gain flatness of  $\pm 1.0$  dB typ. This power amplifier requires only a single positive DC supply, is unconditionally stable, operates over the temperature range of  $-30^{\circ}\text{C}$  to  $70^{\circ}\text{C}$ , and is Hermetically sealed.

#### Features

- 2.0 to 6.0 GHz Frequency Range
- P1dB: 35 dBm min
- Small Signal Gain: 44 dB typ
- Gain Flatness:  $\pm 1.0$  dB typ
- 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	2		6	GHz
Gain	40	44		dB
Gain Flatness		$\pm 1$		dB
Output at 1 dB Compression Point	+35			dBm
Output 3 <sup>rd</sup> Intercept Point		+45		dBm
Noise Figure		4.5		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage 1	11	12	15	Volts
Operating DC Current		4,200		mA
Operating Temperature Range (OTR)	-30		+70	$^{\circ}\text{C}$

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [44 dB Gain, 3 Watt P1dB, 2 GHz to 6 GHz, Medium Power Broadband Amplifier, 45 dBm IP3, 4.5 dB NF, SMA PE15A4043](#)



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### Mechanical Specifications

#### Size

Length	3.87 in [98.3 mm]
Width	3.64 in [92.46 mm]
Height	0.67 in [17.02 mm]
Input Connector	SMA Female
Output Connector	SMA Female

### Environmental Specifications

#### Temperature

Operating Range	-30 to +70 deg C
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**Compliance Certifications** (see [product page](#) for current document)

### 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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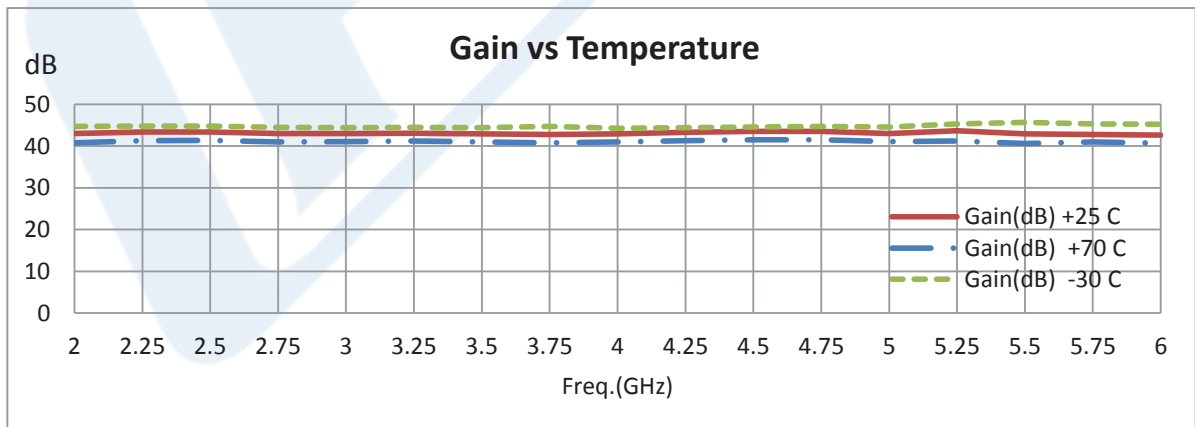
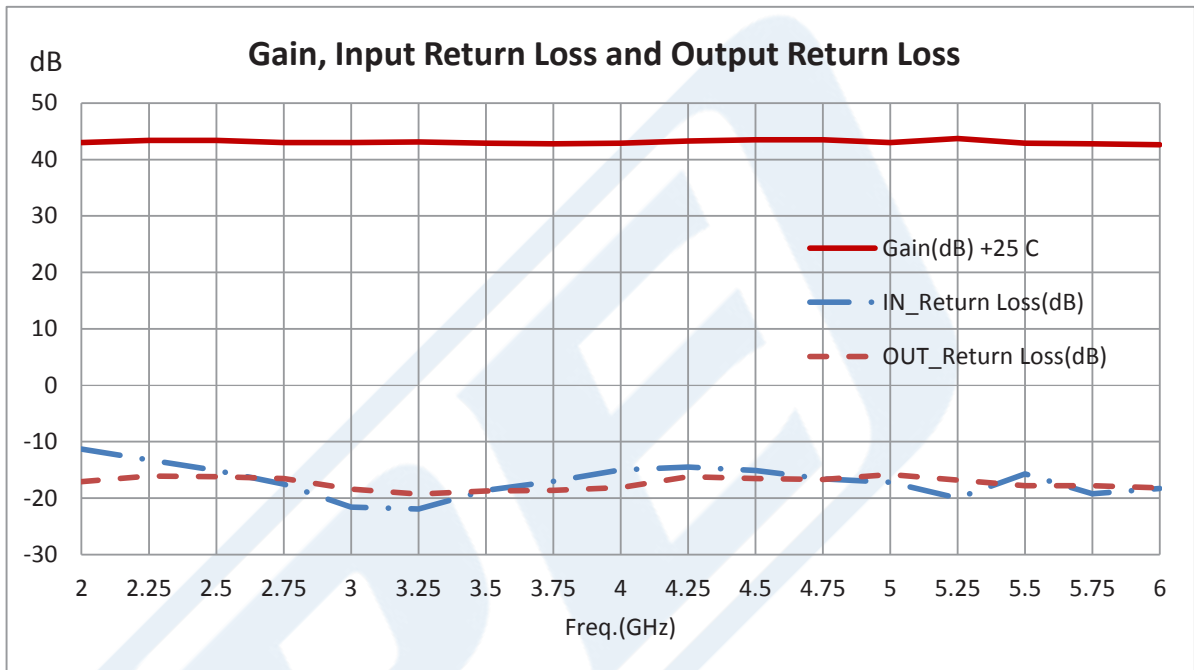


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Typical Performance Data

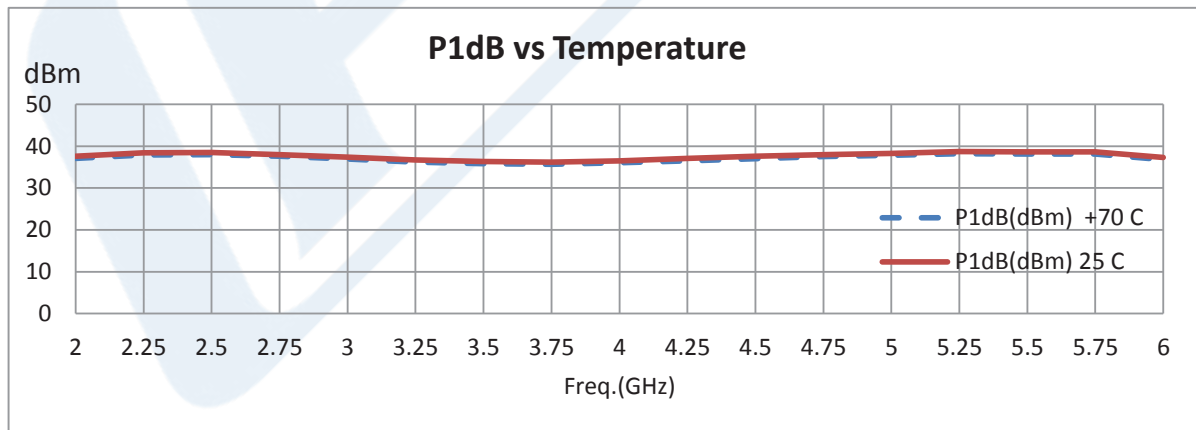
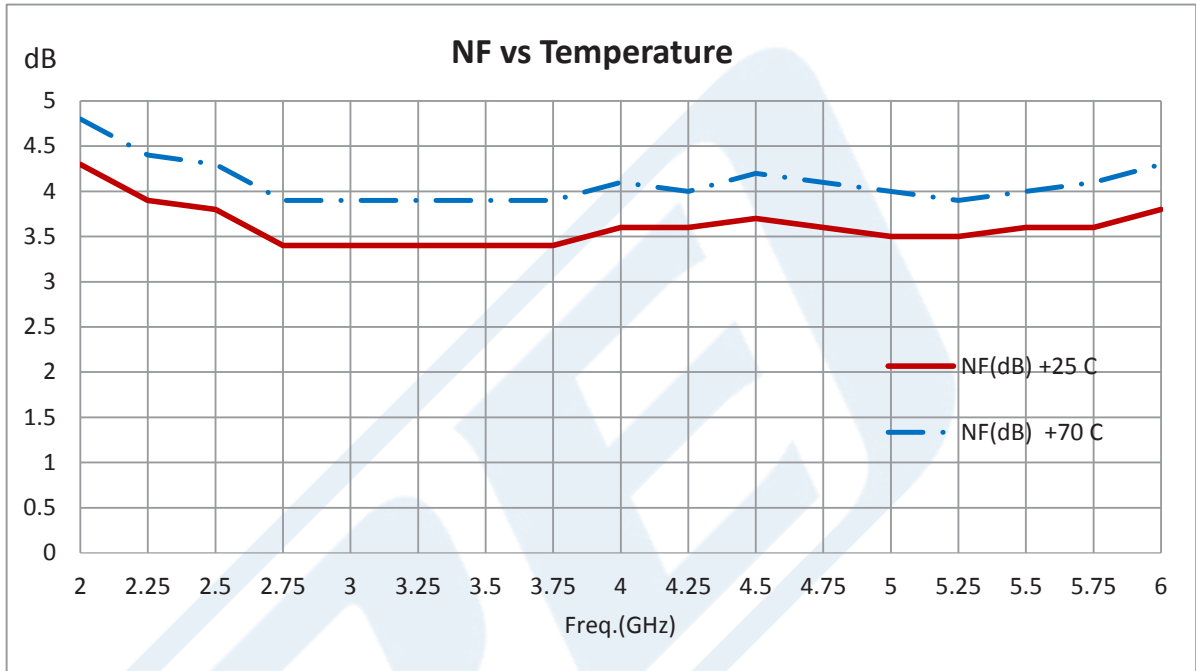


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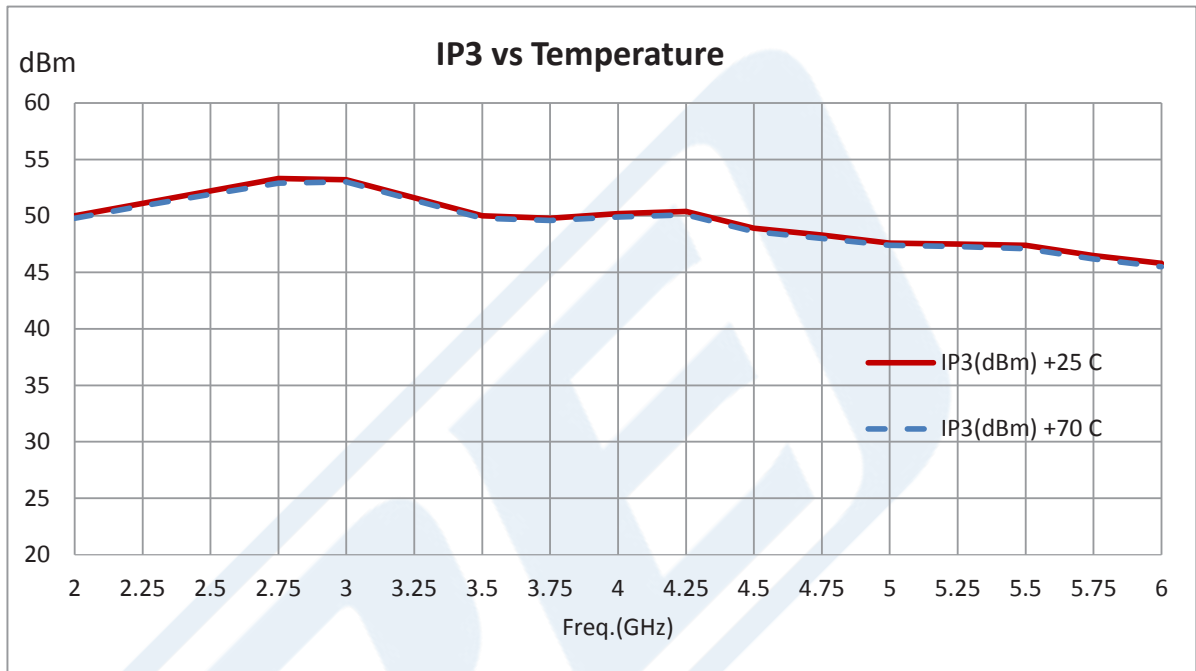
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44 dB Gain, 3 Watt P1dB, 2 GHz to 6 GHz, Medium Power Broadband Amplifier, 45 dBm IP3, 4.5 dB NF, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

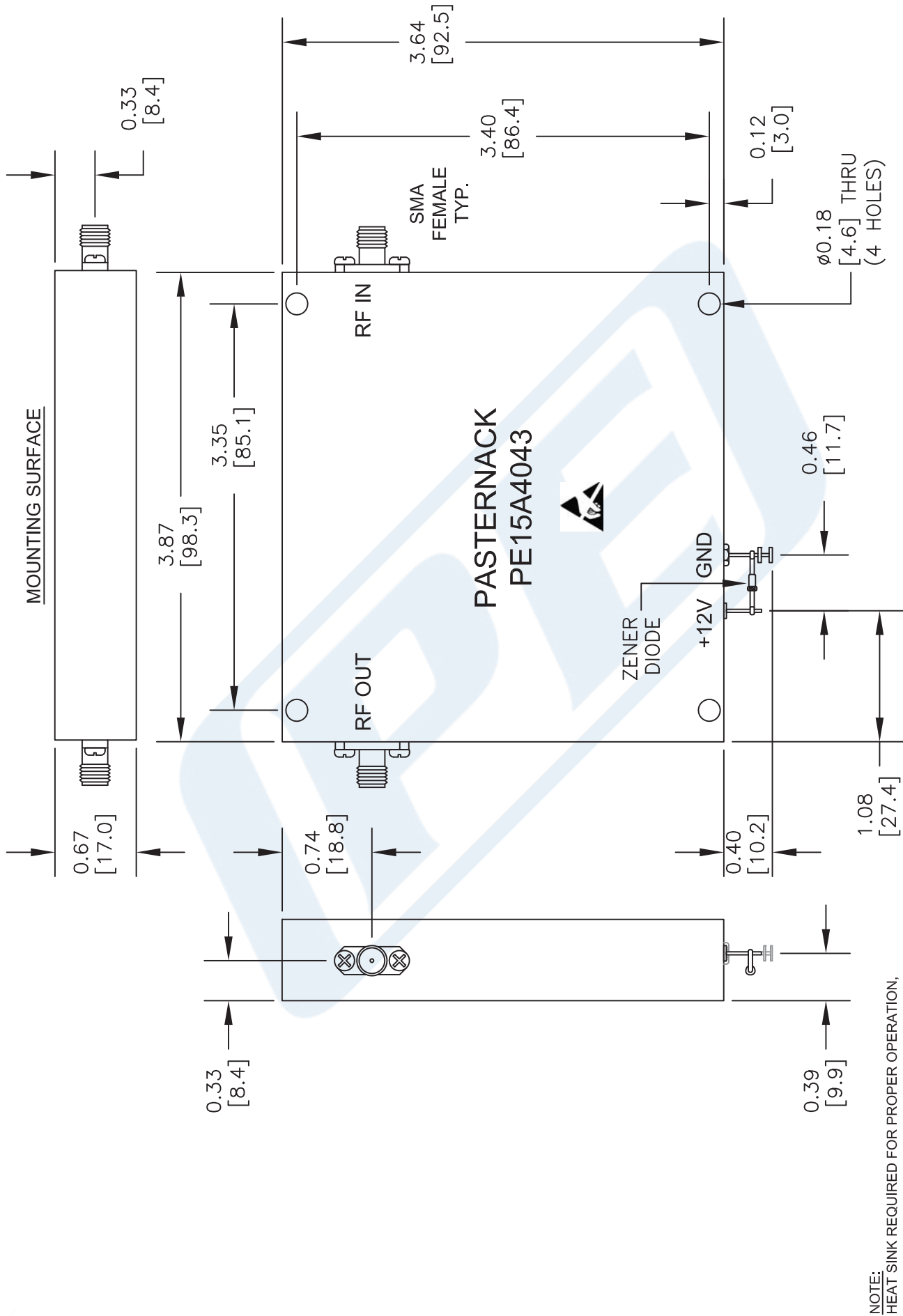
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

# PE15A4043 CAD Drawing

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Broadband Amplifier, 45 dBm IP3, 4.5 dB NF, SMA



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

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  
**PE15A4043**

FSCM NO. 53919

CAD FILE 090816

SCALE N/A

SIZE A

41742

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