



1 Watt P1dB, 3.1 GHz to 3.5 GHz, Medium Power
Broadband Amplifier, 30 dB Gain, 4.5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A4046

The PE15A4046 is a broadband coaxial power amplifier, operating in the 3.1 to 3.5 GHz frequency range. This amplifier utilizes high power devices that provide excellent linearity and high gain. High efficiency operation is achieved by using hybrid MIC designs and advanced GaAs PHEMT devices. The amplifier offers 30 dBm of P1dB min and 30 dB small signal gain typ, with the gain flatness of ± 0.7 dB max. This power amplifier requires a +12 Volt DC supply, is unconditionally stable, operates over the temperature range of -40°C to 85°C , and is Hermetically sealed.

Features

- 3.1 to 3.5 GHz Frequency Range
- P1dB: 30 dBm min
- Small Signal Gain: 30 dB typ
- Gain Flatness: ± 0.7 dB max
- 50 Ohm Input and Output Matched
- -40 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	3.1		3.5	GHz
Gain	29	30		dB
Gain Flatness			± 0.7	dB
Output at 1 dB Compression Point	+30			dBm
Noise Figure			4.5	dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage 1		12		Volts
Operating DC Current			900	mA
Operating Temperature Range (OTR)	-40		+85	$^{\circ}\text{C}$

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1 Watt P1dB, 3.1 GHz to 3.5 GHz, Medium Power Broadband Amplifier, 30 dB Gain, 4.5 dB NF, SMA PE15A4046](#)



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Mechanical Specifications

Size

Length	2.17 in [55.12 mm]
Width	0.86 in [21.84 mm]
Height	0.32 in [8.13 mm]
Weight	0.081 lbs [36.74 g]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 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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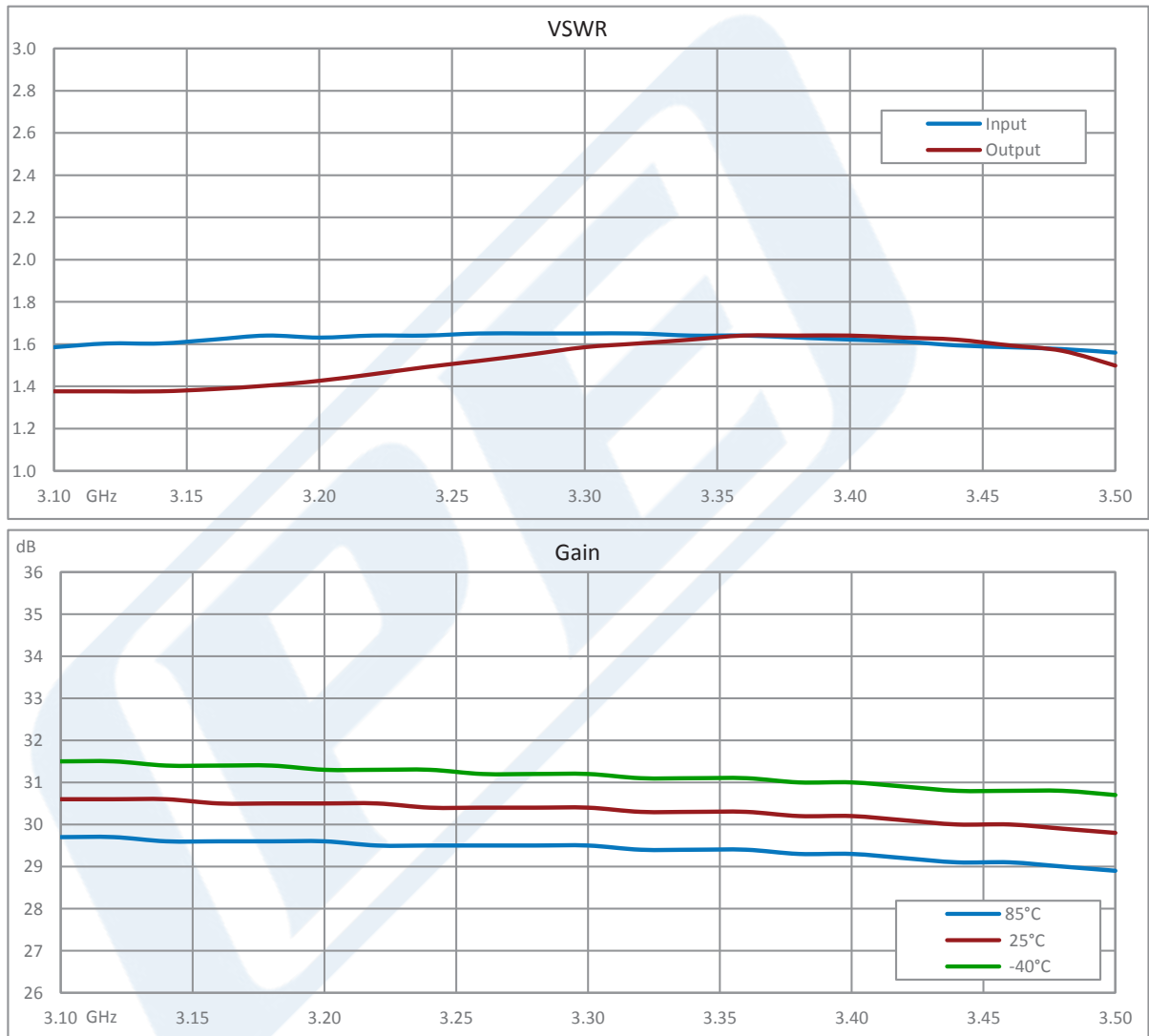


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Typical Performance Data



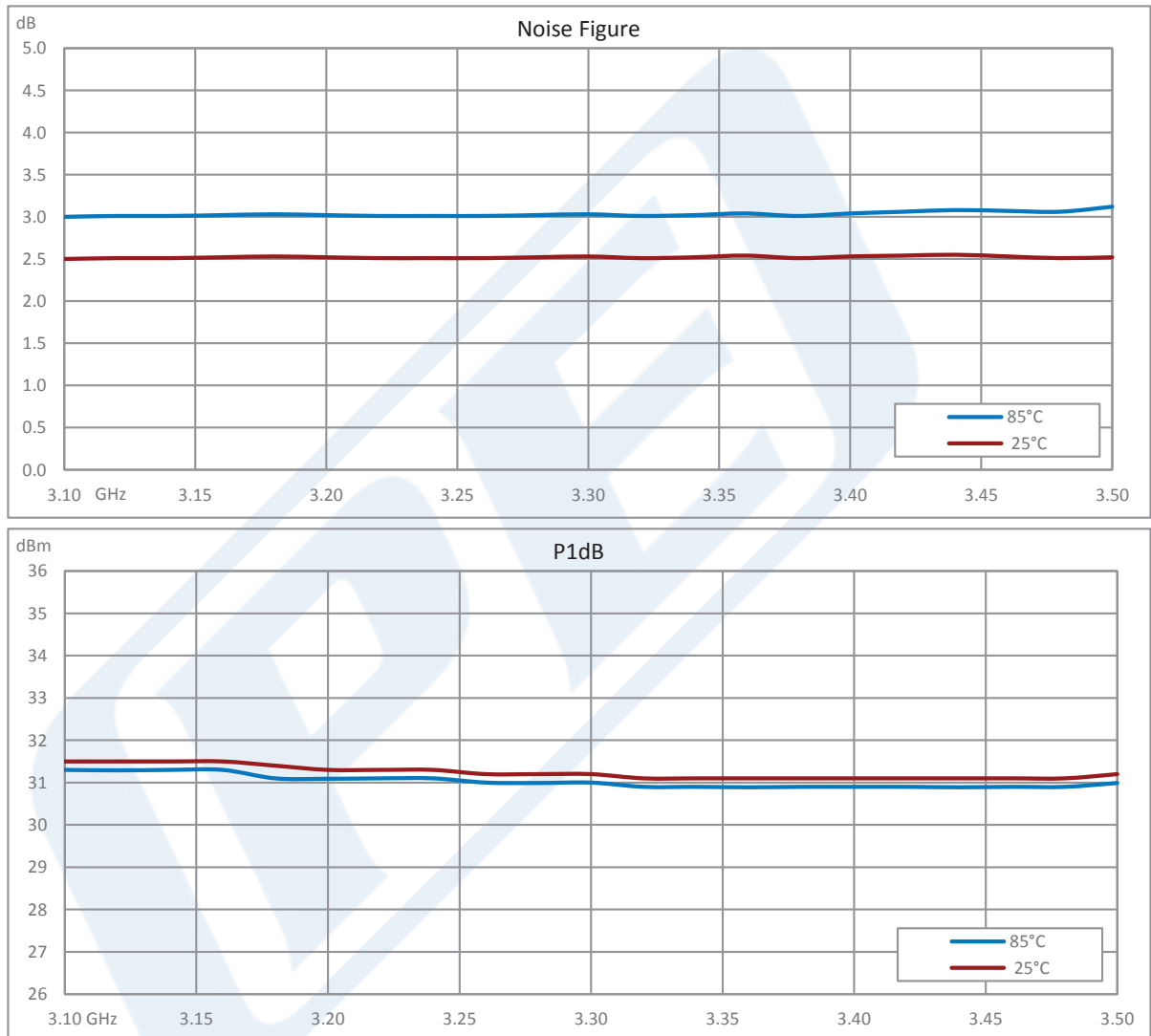
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1 Watt P1dB, 3.1 GHz to 3.5 GHz, Medium Power Broadband Amplifier, 30 dB Gain, 4.5 dB NF, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

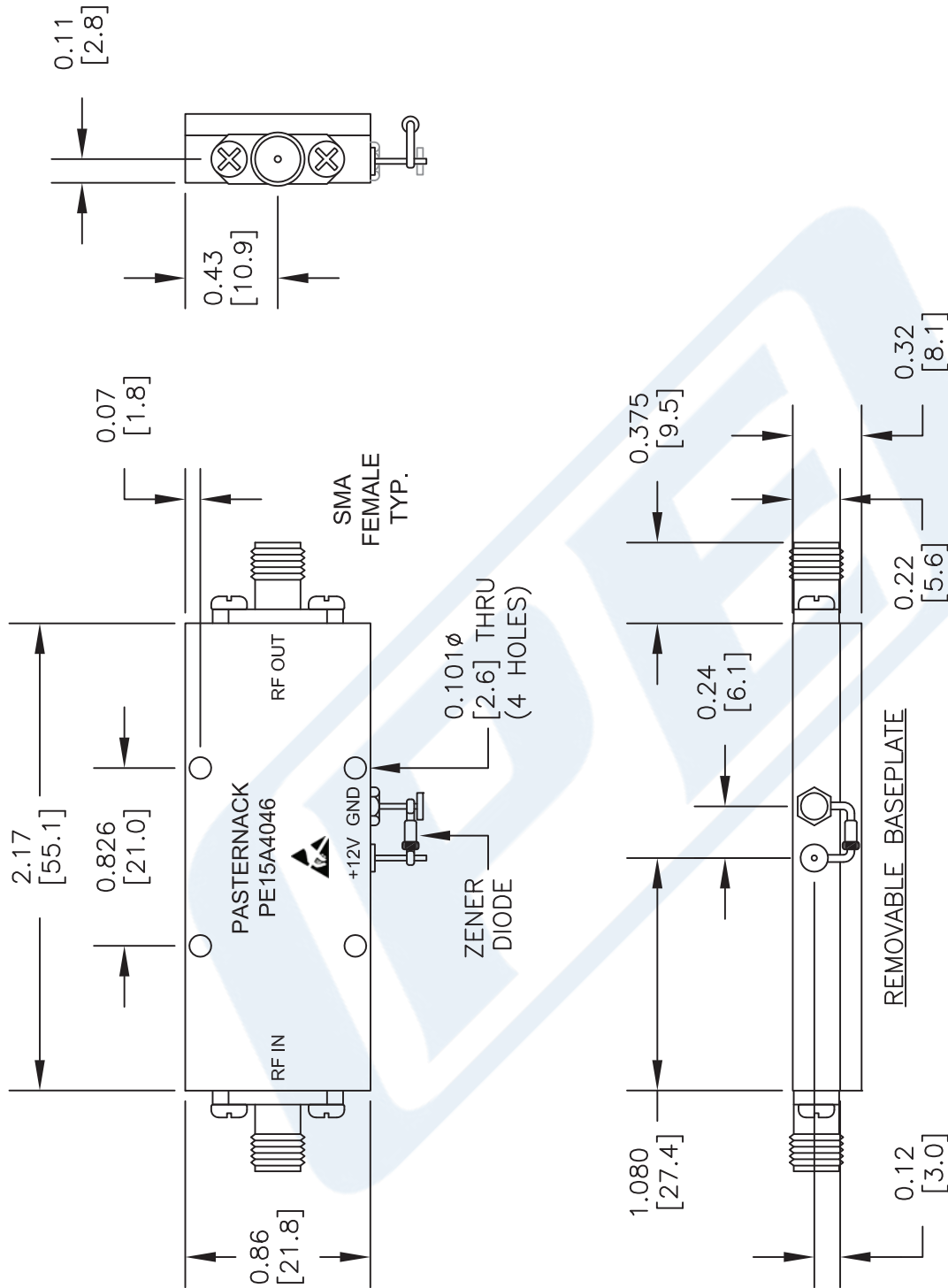
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

PE15A4046 CAD Drawing

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Amplifier, 30 dB Gain, 4.5 dB NF, 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

PE15A4046

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].

CAGE CODE 53919

CAD FILE 032217

SCALE N/A

SIZE A

2233