



40 dB Gain, 10 Watt, 1.2 GHz to 1.4 GHz,  
High Power High Gain Amplifier, SMA

TECHNICAL DATA SHEET PE15A5001

PE15A5001 is a 10W L-band high gain power coaxial amplifier operating in the 1.2 to 1.4 GHz frequency range. The amplifier offers 40 dBm min of saturated power and high 40 dB typical small signal gain with the gain flatness of  $\pm 0.5$  dB typical. This excellent technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The driver amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation, bias sequencing, and reverse bias protection for added reliability. The amplifier operates over the temperature range of  $-30^{\circ}\text{C}$  and  $+65^{\circ}\text{C}$ .

**Features**

- 1.2 GHz to 1.4 GHz Frequency Range
- P1dB 40 dBm min
- Small Signal Gain: 40 dB min
- Gain Flatness:  $\pm 0.3$  typical
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Hermetically Sealed Module
- Overvoltage External Protection for Easy Repair

**Applications**

- L-band Military Radar
- Commercial Air Traffic Control
- Weather & Earth Observation
- Satellites
- Radar & Communication Systems
- High Gain Driver Power Amplifier
- High Gain Output Power Amplifier

**Electrical Specifications** (TA =  $+25^{\circ}\text{C}$ , DC Voltage = 12Volts, DC Current = 4,000mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	1.2		1.4	GHz
Small Signal Gain	40			dB
Output at 1 dB Compression Point	+40			dBm
Input VSWR		2:1		
Output VSWR		2:1		
Operating DC Voltage	11	12	13	Volts
Operating DC Current			4,000	mA
Operating Temperature Range	-30		+65	$^{\circ}\text{C}$

**Absolute Maximum Rating**

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-30 to +65	$^{\circ}\text{C}$
Storage Temperature	-55 to +85	$^{\circ}\text{C}$



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: [40 dB Gain, 10 Watt, 1.2 GHz to 1.4 GHz, High Power High Gain Amplifier, SMA PE15A5001](#)





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

RoHS Compliant

### 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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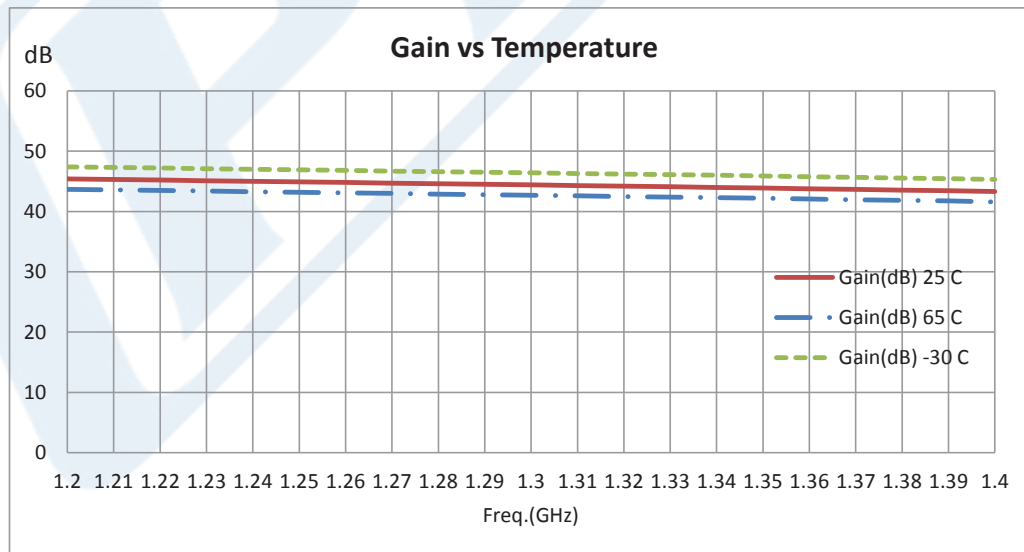
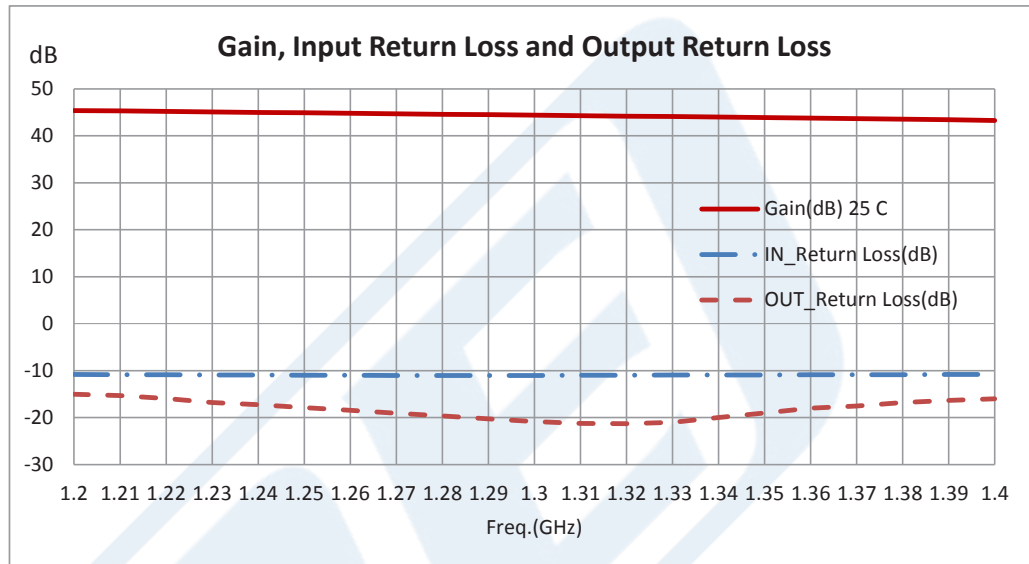


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Power Data



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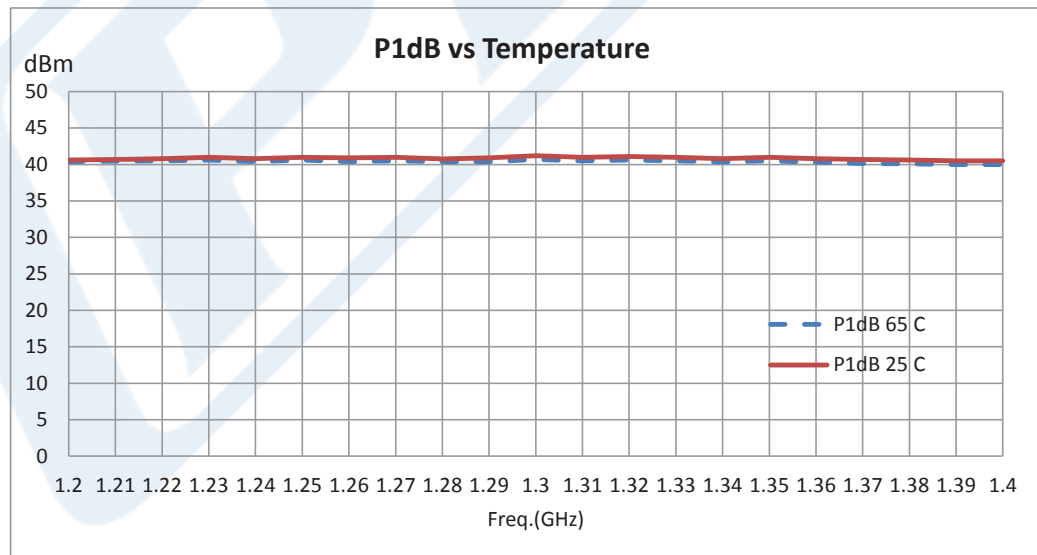
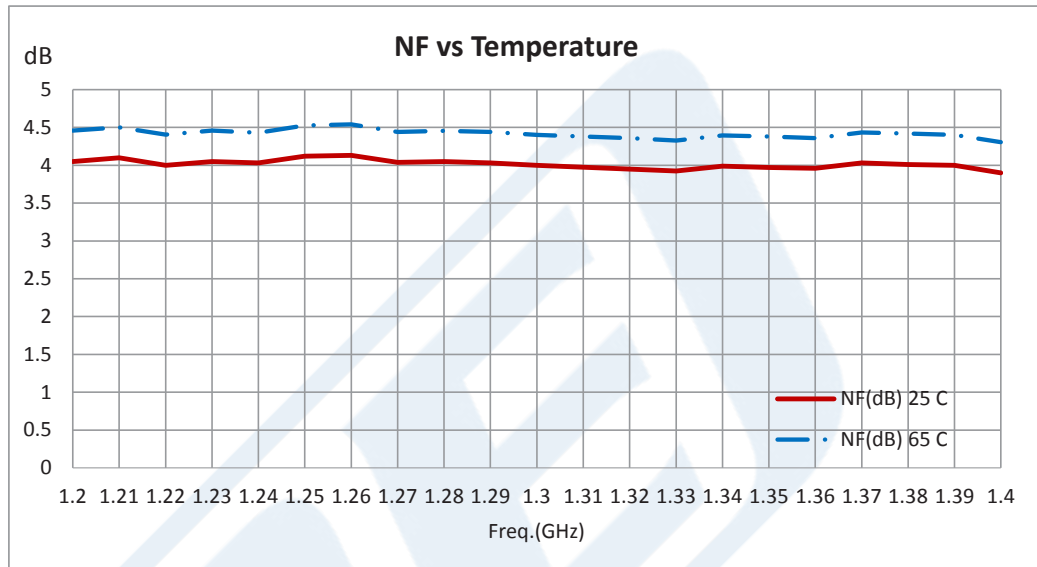




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40 dB Gain, 10 Watt, 1.2 GHz to 1.4 GHz, High Power High Gain Amplifier, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

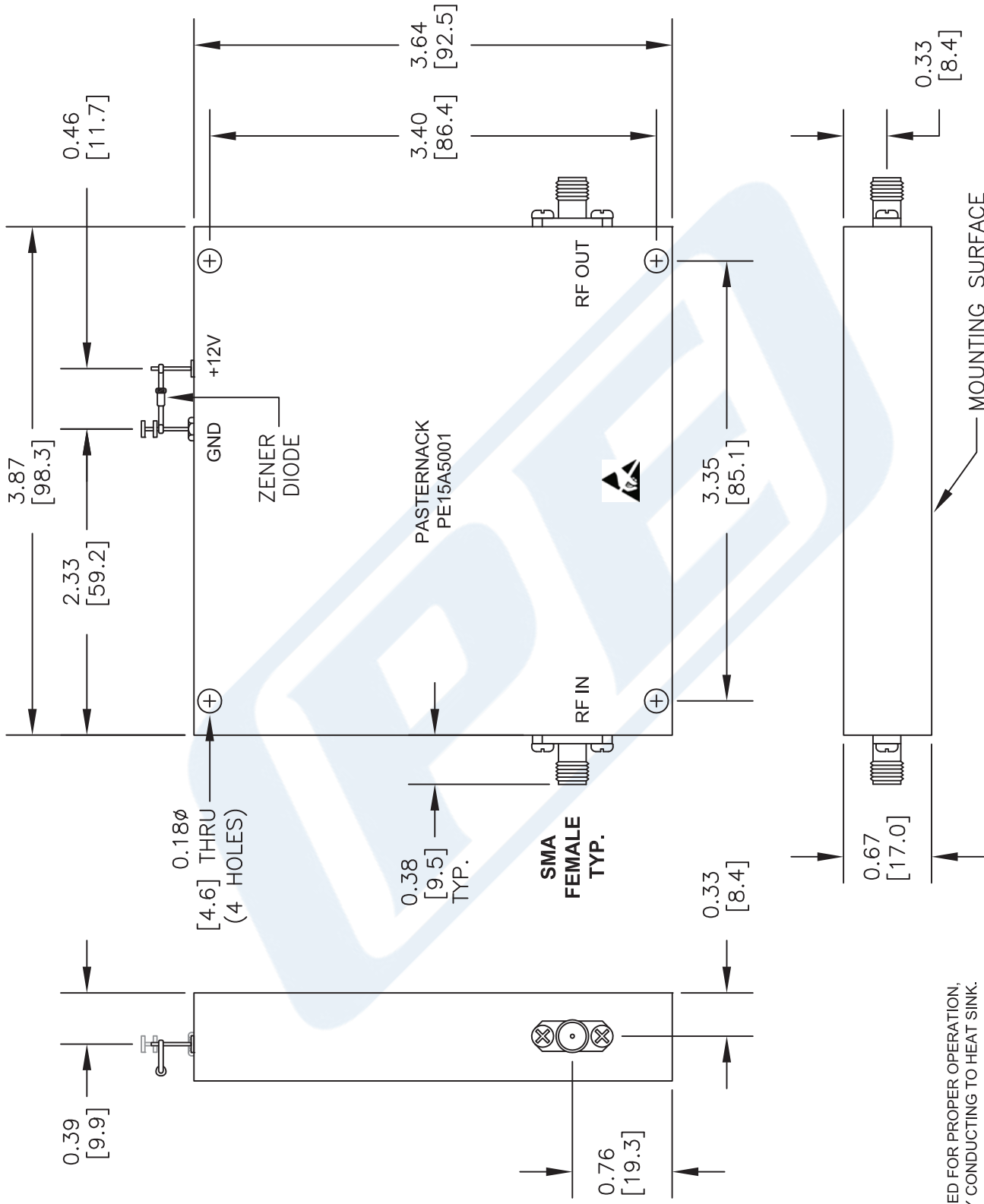
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URL: <http://www.pasternack.com/40-db-gain-1.4-ghz-high-power-high-gain-amplifier-sma-pe15a5001-p.aspx>

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.

# PE15A5001 CAD Drawing

40 dB Gain, 10 Watt, 1.2 GHz to 1.4 GHz, High Power High Gain Amplifier, SMA



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

<p>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].</p>	<p>DWG TITLE <b>PE15A5001</b></p>	<p><b>PE PASTERNAK</b> 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</p>
<p>CAD FILE 032514</p>	<p>FSCM NO. 53919</p>	<p>SCALE N/A</p>
<p>SIZE A</p>	<p>150</p>	<p></p>