



## 1.5 dB NF, 10 mW, 1 GHz to 2 GHz Low Noise Amplifier, 35 dB Gain, SMA

PE151000 is a L-band coaxial low noise amplifier operating noise figure, 10 dBm minimum of saturated power and high 3 of  $\pm 1.0$  dB max. This technical performance is achieved through devices. The low noise amplifier requires typically a +12V DC stable and includes built-in voltage regulation, bias sequence operates over the temperature range of  $-40^{\circ}\text{C}$  and  $+85^{\circ}\text{C}$ .

### Features

- 1 GHz to 2 GHz Frequency Range
- Psat: 10 dBm min
- High Small Signal Gain: 35 dB
- Gain Flatness:  $\pm 1.0$  dB max
- Noise Figure: 1.5 dB
- 50 Ohms Input and Output Matched
- Operating Temperature Range:  $-40$  to  $+85^{\circ}\text{C}$
- Unconditionally Stable
- Regulated Supply & Bias Sequence
- Hermetically Sealed Module
- Overvoltage External Protection

### Applications

- Laboratory Applications
- R&D Labs
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communication Block
- Wireless Communications
- Microwave Radio Systems
- Low Noise Amplifier
- General Amplification

Electrical Specifications: DC Voltage = 12 Volts, DC Current

Description	Minimum	Typical	Maximum	Units
Frequency Range	1		2	GHz
Small Signal Gain	35			dB
Minimum Psat	+10			dBm
Noise Figure		1.5		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage	11	12	13	Volts
Operating DC Current			200	mA
Operating Temperature Range			+85	$^{\circ}\text{C}$

Click the following link (or enter part number in "SEARCH" inventory and click on "Find a Part") [1 GHz to 2 GHz, 1.5 dB NF, 10 mW, 35 dB Gain, SMA](#)



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**Absolute Maximum Rating**

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-40 to +85	°C
Storage Temperature	-55 to +85	°C



ESD Sensitive Material,  
Transport material in  
Approved ESD bags.  
Handle only in approved  
ESD Workstation.

Compliance Certificate available on [www.pasternack.com](http://www.pasternack.com) for current documents  
RoHS Compliant

**Plotted and Other Data**

Notes:

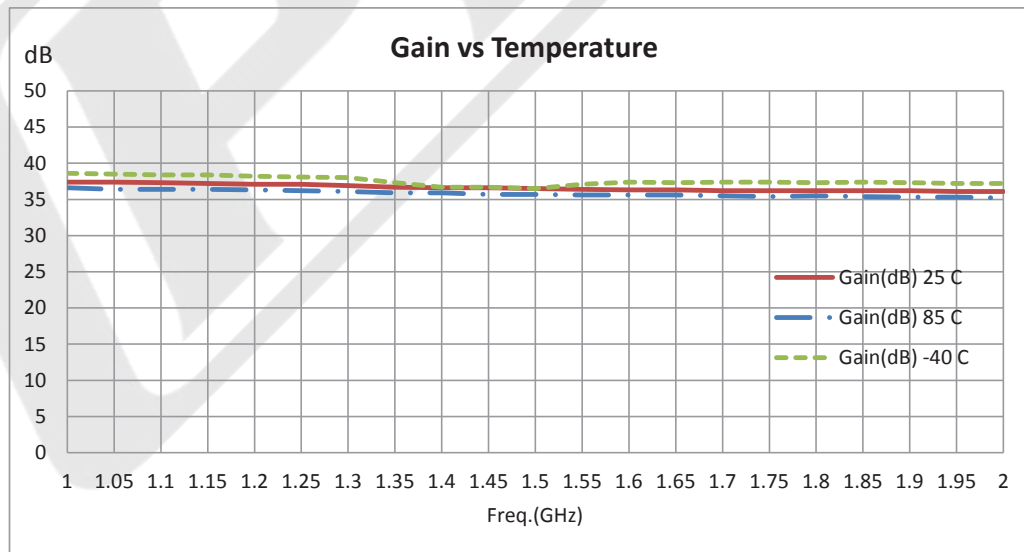
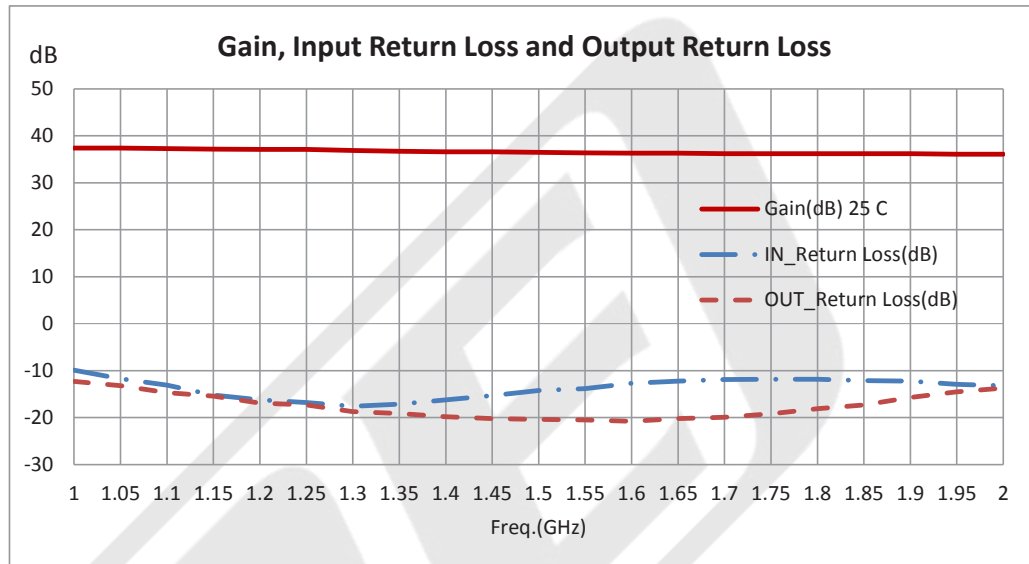
- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags.

Click the following link (or enter part number in "SEARCH" field) to view the product page and check inventory and pricing: [www.pasternack.com/Products/15A1000.aspx](http://www.pasternack.com/Products/15A1000.aspx)



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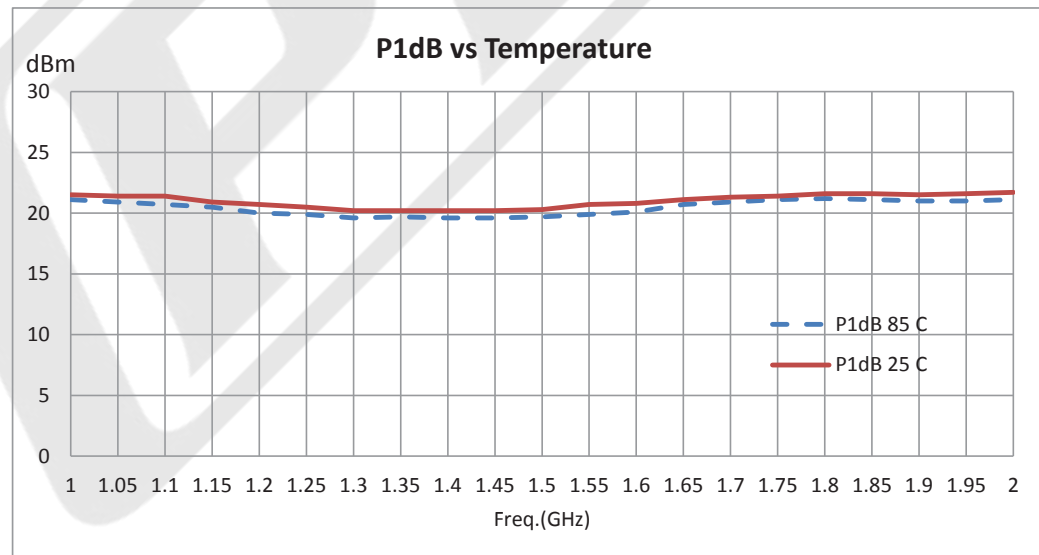
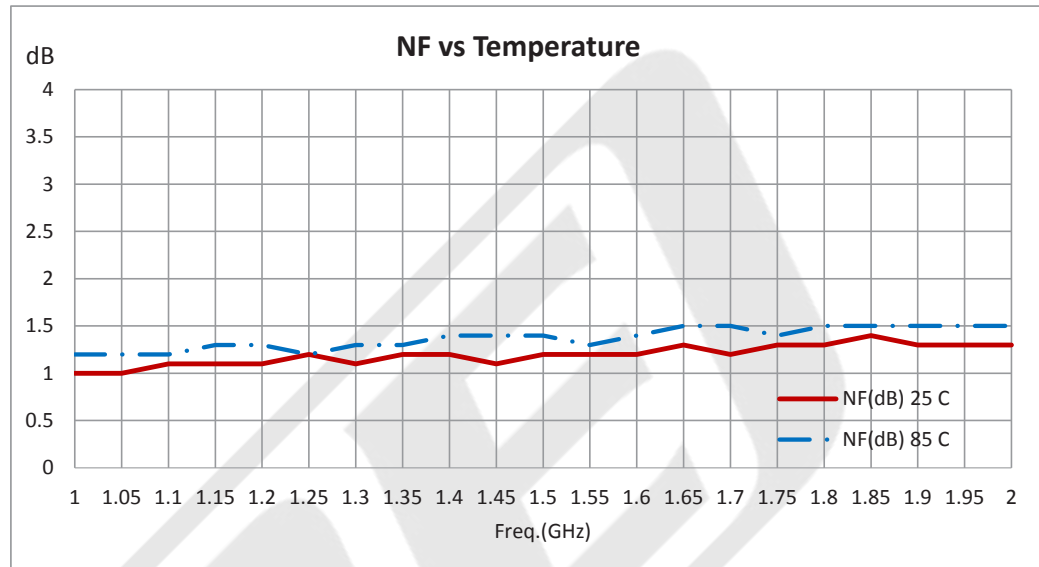
**Power Data**



Click the following link (or enter part number in "SEARCH" field) to view the product page and check inventory and pricing: [PE15A1000](#)



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Click the following link (or enter part number in "SEARCH" field) to view the product page and check inventory and pricing: [PE15A1000](#)



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1.5 dB NF, 10 mW, 1 GHz to 2 GHz, Low Noise Amplifier, 35 dB Gain, SMA connectors, and are part of the broadest selection in the industry. Our RF, microwave, and millimeter wave components are available for domestic and international orders.

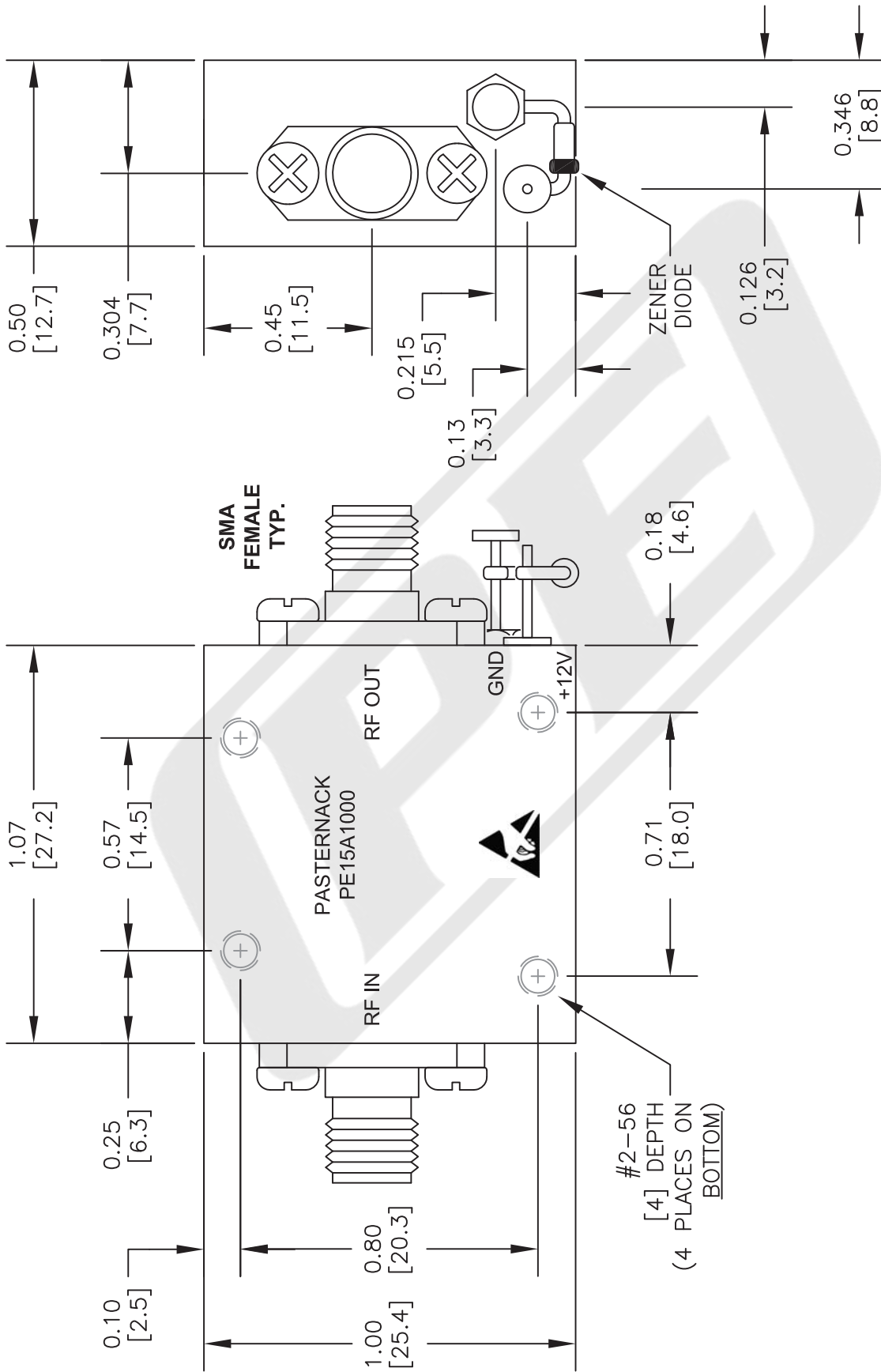
Click the following link (or enter part number in "SEARCH" field) to view the product page in our online inventory and purchase options: <http://www.pasternack.com/1.5-db-2-ghz-low-noise-amp>

URL: <http://www.pasternack.com/1.5-db-2-ghz-low-noise-amp>

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.

# PE15A1000 CAD Drawing

1.5 dB NF, 10 mW, 1 GHz to 2 GHz, Low Noise A



DWG TITLE

**PE15A1000**

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].

FSCM NO. 53919

CAD FILE 041414

SCALE N/A

SIZE A

2233

**PE PASTERNAK**  
 THE ENGINEER'S RF SOURCE

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