



6 GHz to 18 GHz, Gain Block Amplifier,  
17 dB Gain, 4.5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A8007

The PE15A8007 is wideband general purpose RF coaxial gain block amplifier operating in the 6 GHz to 18 GHz frequency range. The amplifier offers 20 dBm min of P1dB, 17 dB typ of Gain, IP3 min of 30 dBm. This exceptional technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. Input/output ports are matched for 50 ohms and are AC coupled. This gain block amplifier requires only a single positive supply, typically a +12V DC power supply and includes built-in voltage regulation, is unconditionally stable and operates over the temperature range of -30°C and +70°C.

**Features**

- 6 GHz to 18 GHz Frequency Range
- P1dB: 20 dBm min
- Small Signal Gain: 17 dB typ
- IP3: 30 dBm min
- 50 Ohm Input and Output Matched
- -30 to +70°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in Voltage Regulator

**Applications**

- Laboratory Applications
- R&D Labs
- Military Radio
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Wireless Communication
- Microwave Radio Systems
- Cellular Base Stations
- Low Noise Amplifier
- General Purpose Amplification
- General Purpose Wireless
- Wideband Gain Block
- IF Amplifier/RF Driver Amplifier
- RF Wideband Front Ends
- RF Pre-amplification

**Electrical Specifications** (TA = +25°C, DC Voltage = 12Volts, DC Current = 160mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	6		18	GHz
Small Signal Gain	15	17		dB
Gain Flatness		±0.6	±0.7	dB
Output at 1 dB Compression Point	+20			dBm
Output 3rd Intercept Point	+30			dBm
Noise Figure		4.5		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage	11	12	15	Volts
Operating DC Current		160		mA
Operating Temperature Range	-30		+70	°C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [6 GHz to 18 GHz, Gain Block Amplifier, 17 dB Gain, 4.5 dB NF, SMA PE15A8007](#)



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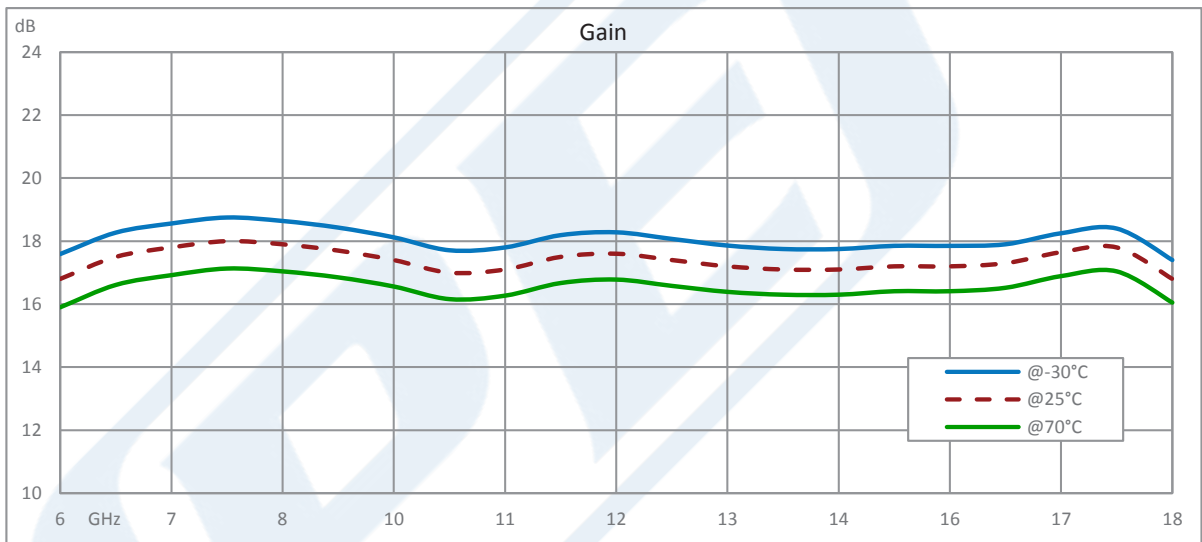
**Compliance Certifications** (see [product page](#) for current document)

**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.

**Typical Performance Data**



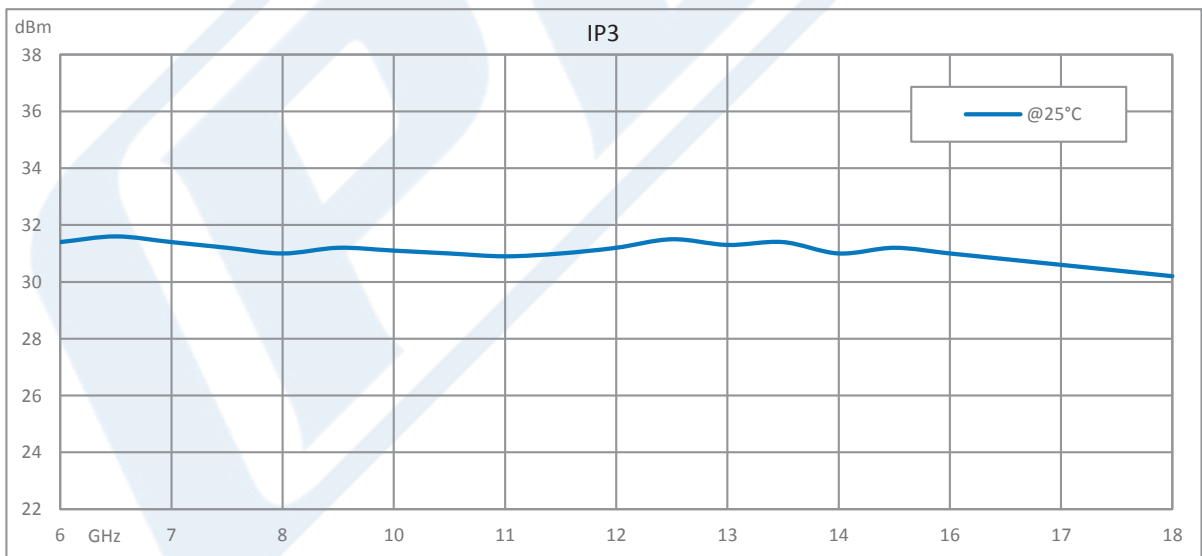
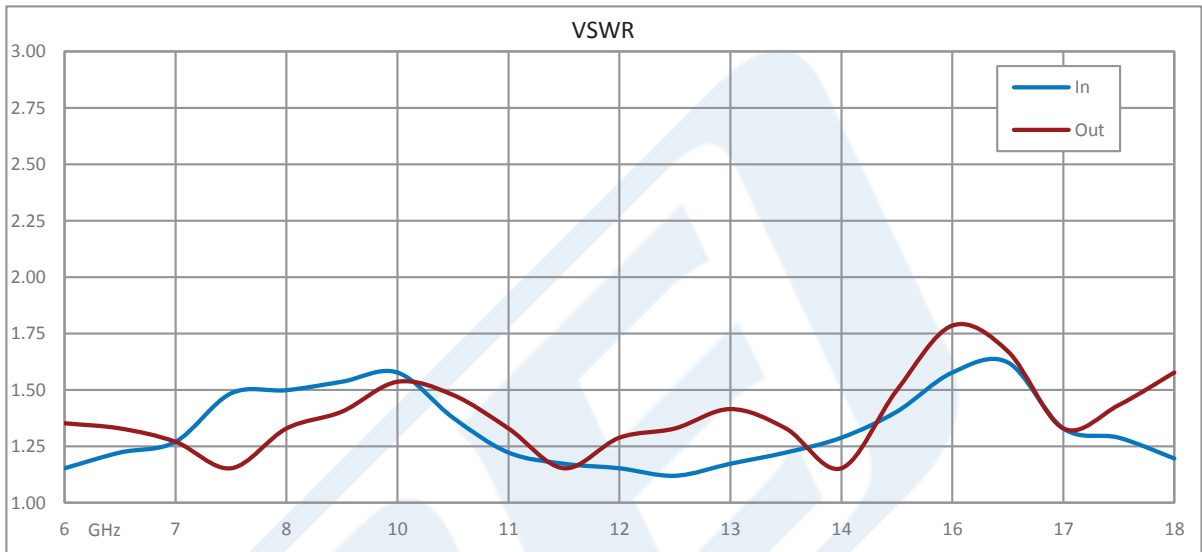
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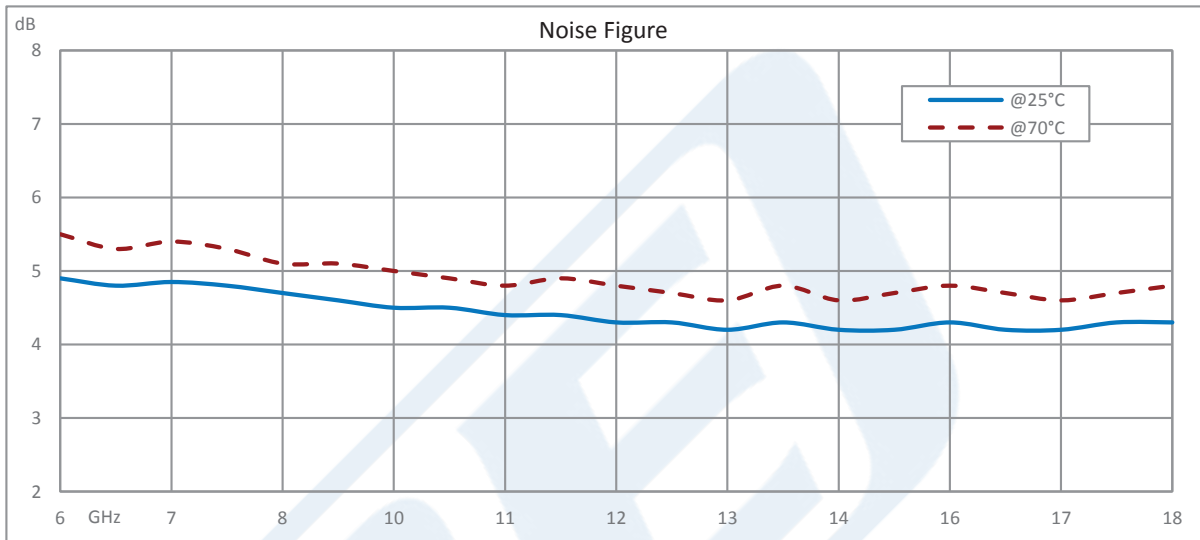
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6 GHz to 18 GHz, Gain Block Amplifier, 17 dB Gain, 4.5 dB NF, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

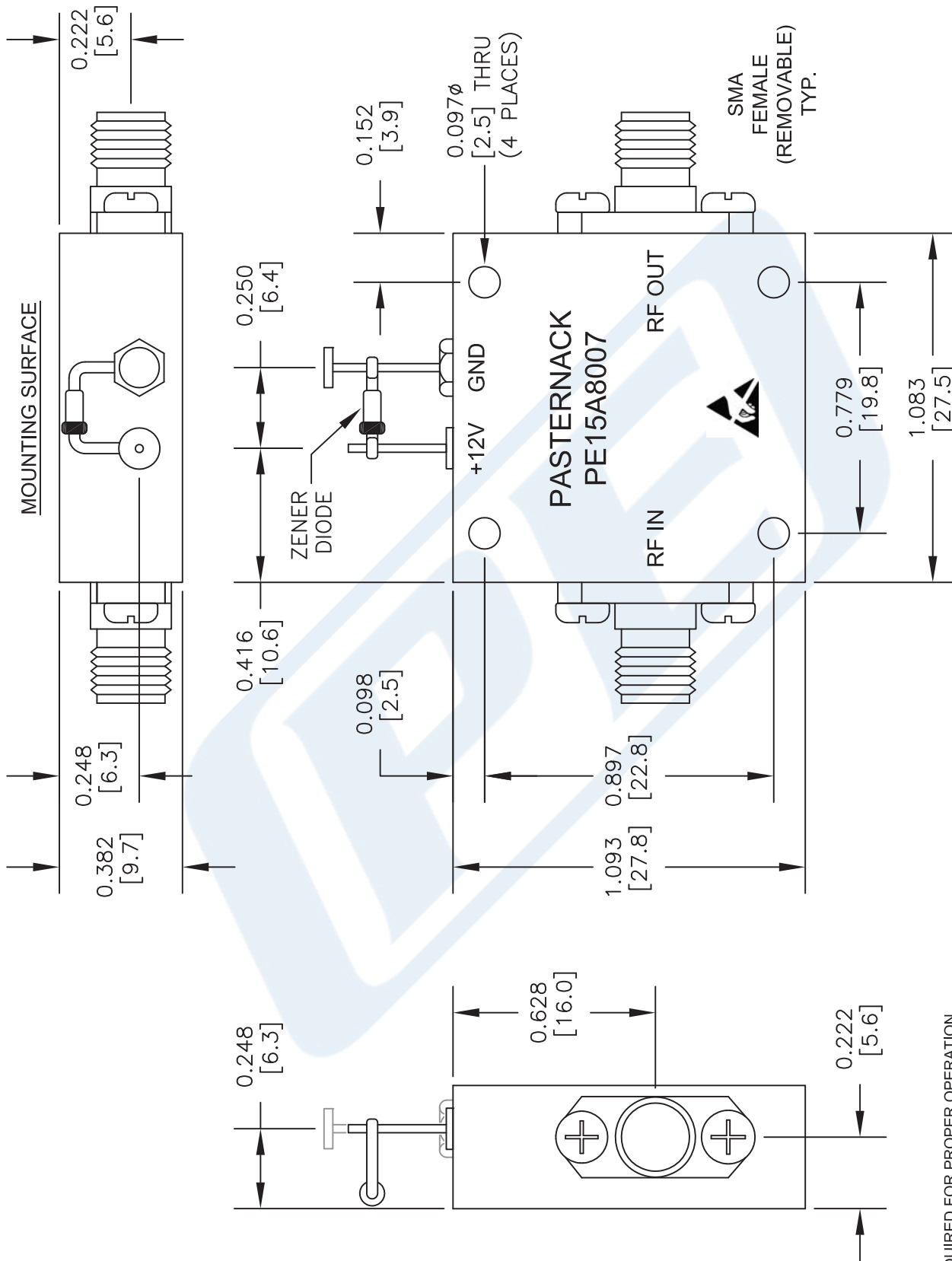
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

# PE15A8007 CAD Drawing

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



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DWG TITLE

**PE15A8007**

FSCM NO. 53919

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].

CAD FILE 031616

SCALE N/A

SIZE A

2233