



60 dB Gain, 19 dBm, 1 GHz to 2 GHz, Limiting
Amplifier, -40 to 10 dBm Pin, SMA

TECHNICAL DATA SHEET

PE15A6002

Model Number PE15A6002 is a 1 to 2 GHz high gain limiting coaxial amplifier. The model operates with an input power range of -40 to +10 dBm and maintains a limited output of +19 dBm minimum. This amplifier offers a flat high 60 dB gain and a gain flatness of ± 2.5 dB independent of the input. This excellent technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices, and supplied the power typically from a +12V DC power supply. The connectorized SMA module includes built-in voltage regulation, bias sequencing, and reverse bias protection for added reliability. The module is hermetically sealed for extreme environmental conditions.

Features

- 1 GHz to 2 GHz Frequency Range
- Wide Input Dynamic Range: -40 to +10 dBm
- Psat: 19dBm Min.
- High Small Signal Gain: 60 dB Min.
- Gain Flatness: ± 2.5 dB max
- Noise Figure: 2.5 dB maximum
- VSWR (In/Out): 2:1
- 50 Ohm Input and Output Matched
- -30 to 70°C Operating Temperature
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Hermetically Sealed Module
- Overvoltage External Protection for Easy Repair

Applications

- Electronic Warfare
- Test & Measurements
- Military & Space
- Military Communication Systems
- Broadband Communication
- Microwave Receivers
- Instantaneous Frequency Measurement Receivers

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts, DC Current = 250mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	1		2	GHz
Small Signal Gain	60			dB
Gain Flatness		± 2.5		dB
Input Power	-40		+10	dBm
Psat	+19			dBm
Psat Flatness			± 1	dB
Noise Figure			2.5	dB
Input VSWR		2:1		
Output VSWR		2:1		
Operating DC Voltage	11	12	13	Volts
Operating DC Current			250	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: [60 dB Gain, 19 dBm, 1 GHz to 2 GHz, Limiting Amplifier, -40 to 10 dBm Pin, SMA PE15A6002](#)



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Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-30 to +70	°C
Storage Temperature	-55 to +85	°C



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

Compliance Certifications (visit 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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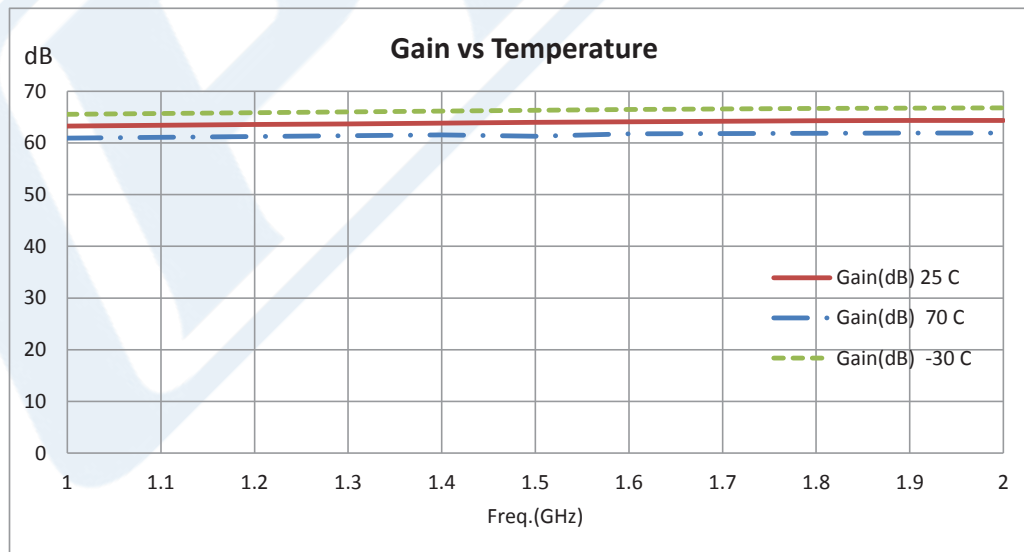
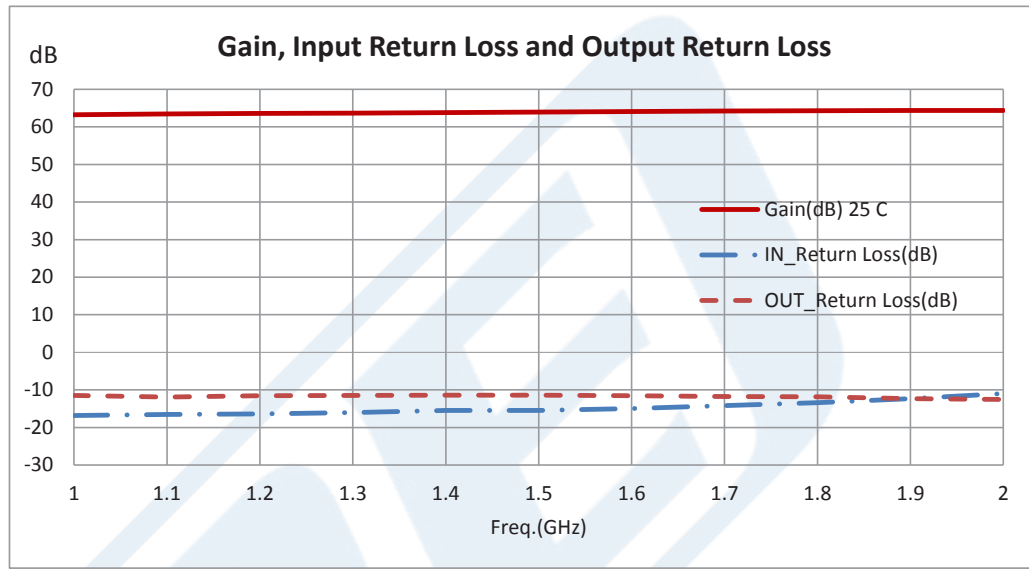


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Power Data



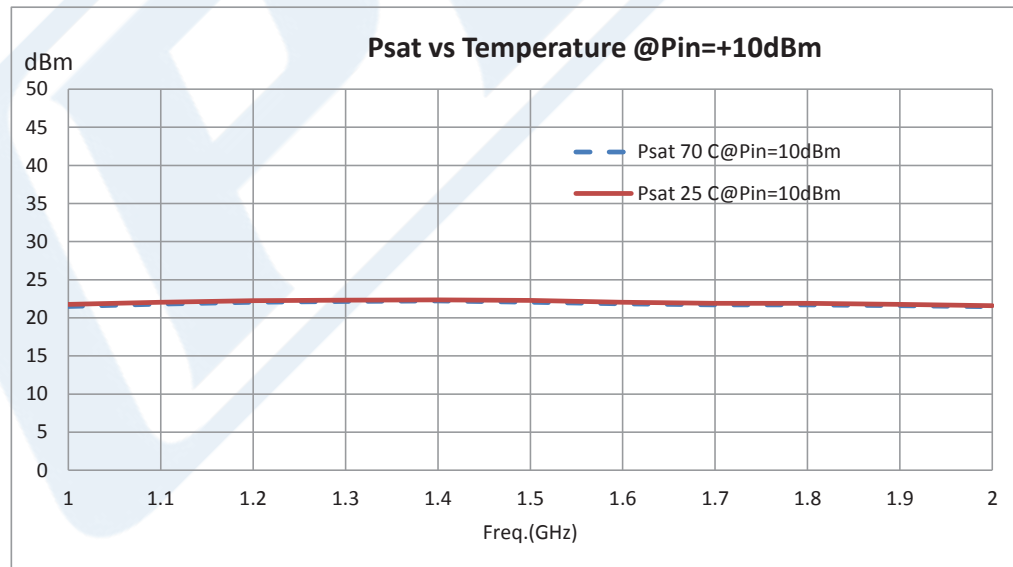
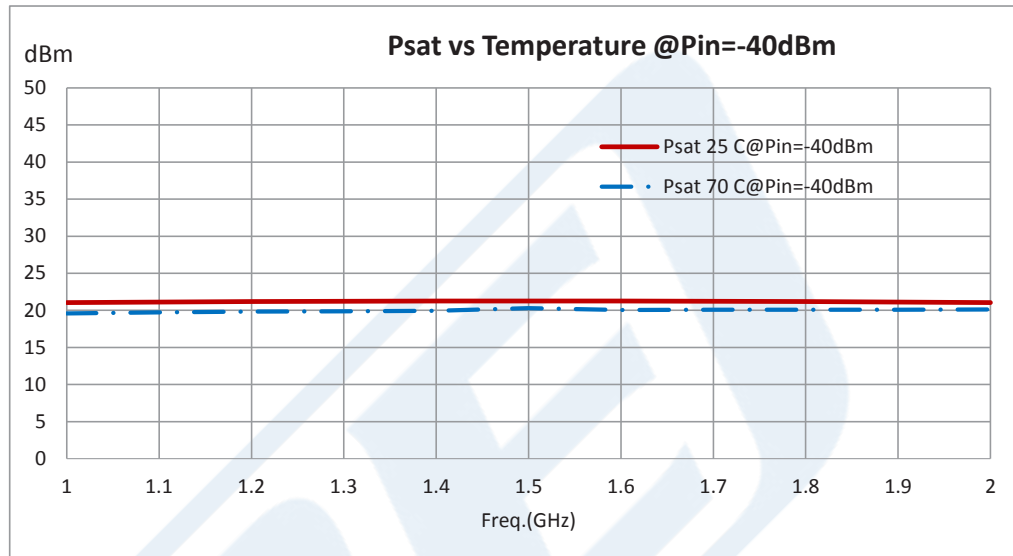
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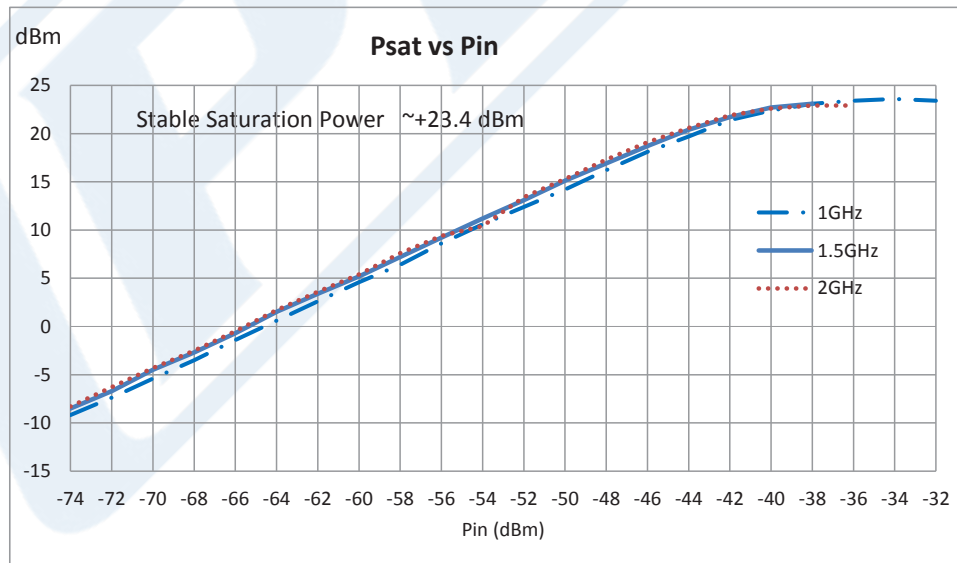
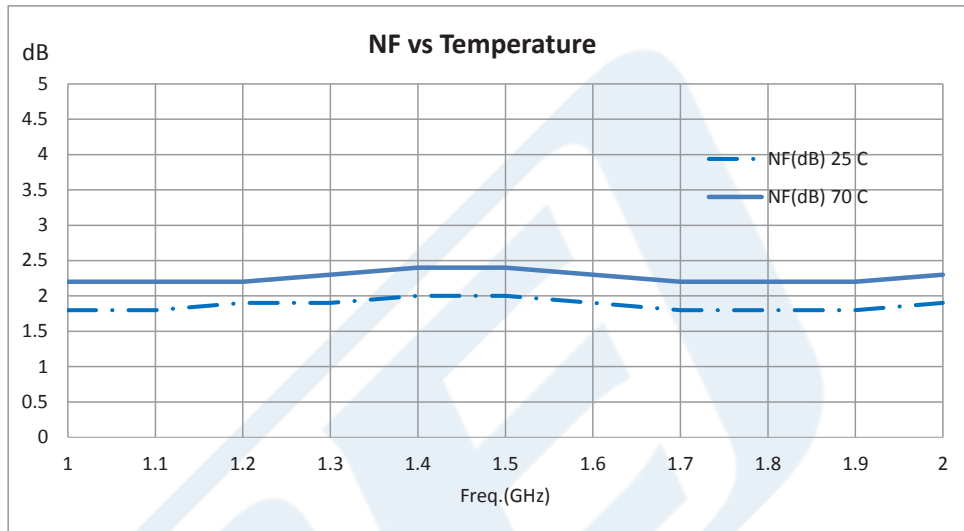
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60 dB Gain, 19 dBm, 1 GHz to 2 GHz, Limiting Amplifier, -40 to 10 dBm Pin, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and

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are part of the broadest selection in the industry.

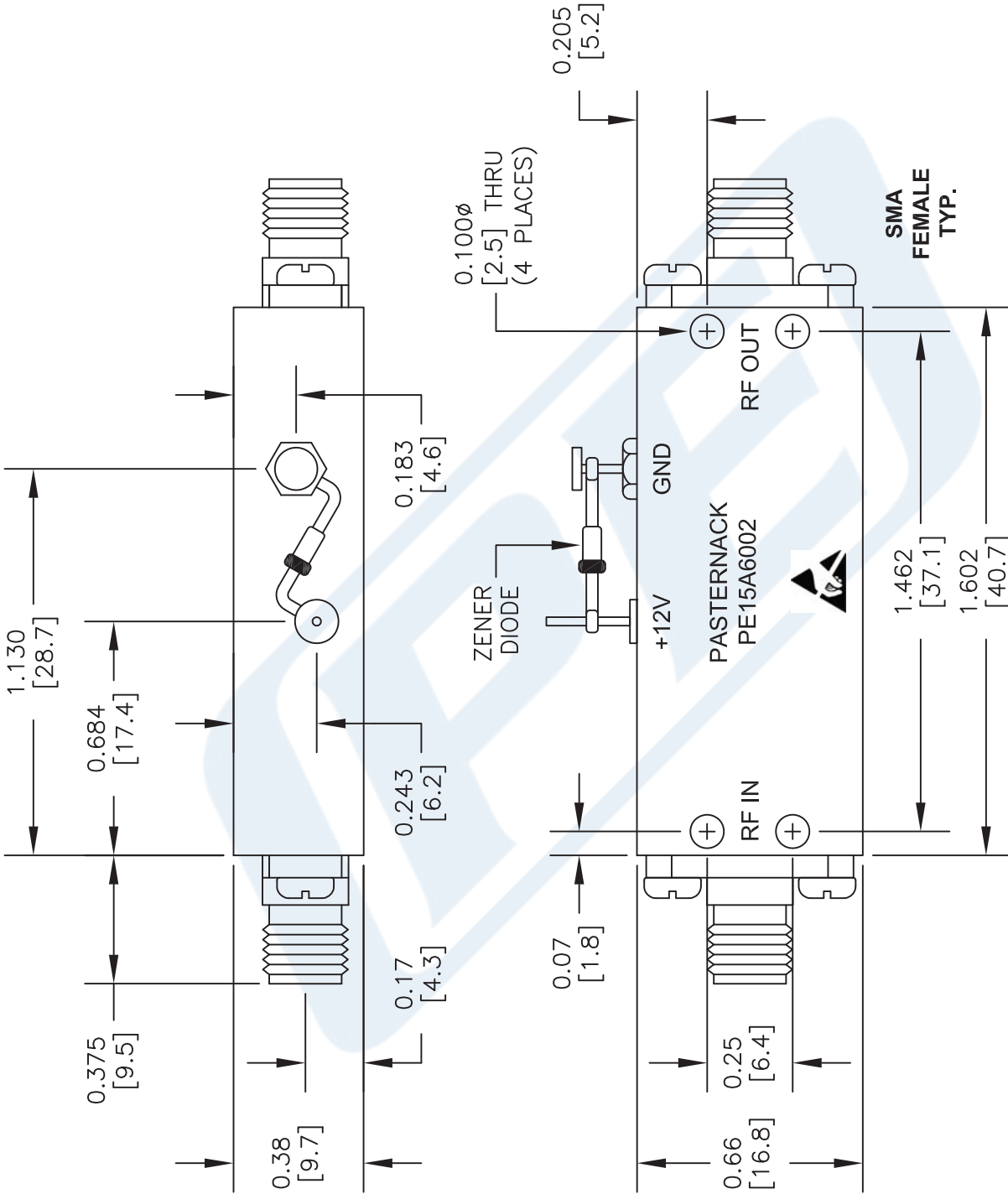
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PE15A6002 CAD Drawing

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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

PE15A6002

FSCM NO. 53919

CAD FILE 041114

SCALE N/A

SIZE A

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THE ENGINEER'S RF SOURCE
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