



40 dB Gain, 19 dBm Psat, 6 GHz to 18 GHz,
Limiting Amplifier, -20 to 20 dBm Pin, SMA

TECHNICAL DATA SHEET

PE15A6012

Model Number PE15A6012 is a 6 to 18 GHz wideband limiting coaxial amplifier. The model operates with an input power range of -20 to +20 dBm and maintains a limited output of +19 dBm minimum. This connectorized amplifier offers a flat 40 dB gain and a gain flatness of ± 2.0 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

- 6 GHz to 18 GHz Frequency Range
- Wide Input Dynamic Range: -20 to +20 dBm
- Psat: 19dBm Min.
- High Small Signal Gain: 40 dB Min.
- Gain Flatness: ± 2 dB max
- Noise Figure: 4 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 = 300mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	6		18	GHz
Small Signal Gain	40			dB
Gain Flatness		± 2		dB
Input Power	-20		+20	dBm
Psat	+19			dBm
Psat Flatness			± 1	dB
Noise Figure			4	dB
Input VSWR		2:1		
Output VSWR		2:1		
Operating DC Voltage	11	12	13	Volts
Operating DC Current			300	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: [40 dB Gain, 19 dBm Psat, 6 GHz to 18 GHz, Limiting Amplifier, -20 to 20 dBm Pin, SMA PE15A6012](#)



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Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+16	Volts
RF input Power	+20	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 (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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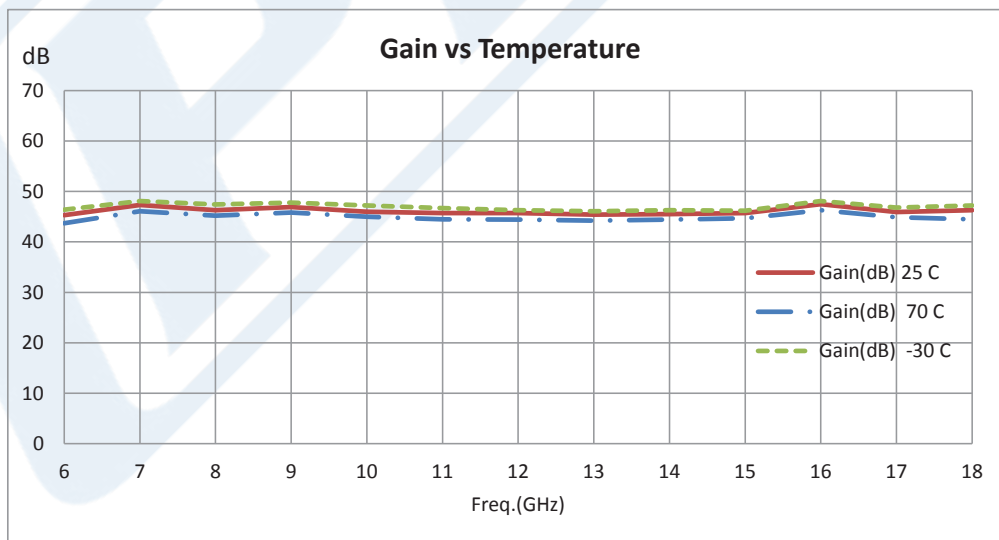
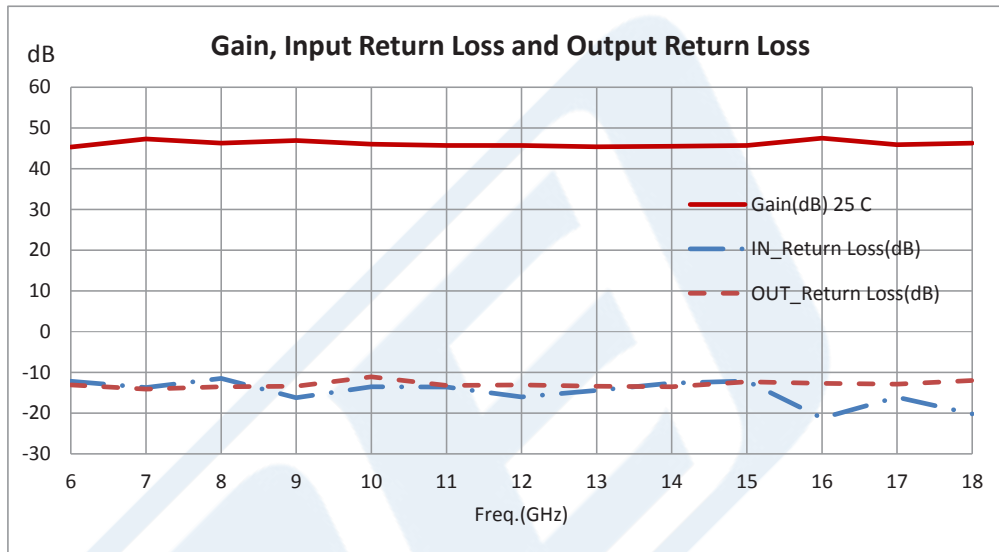


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Typical Performance Data



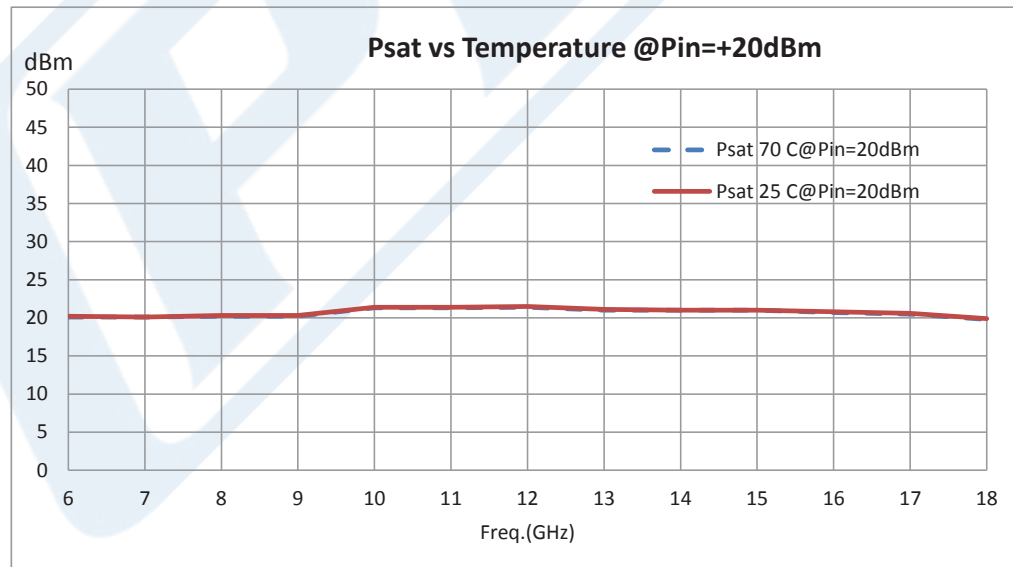
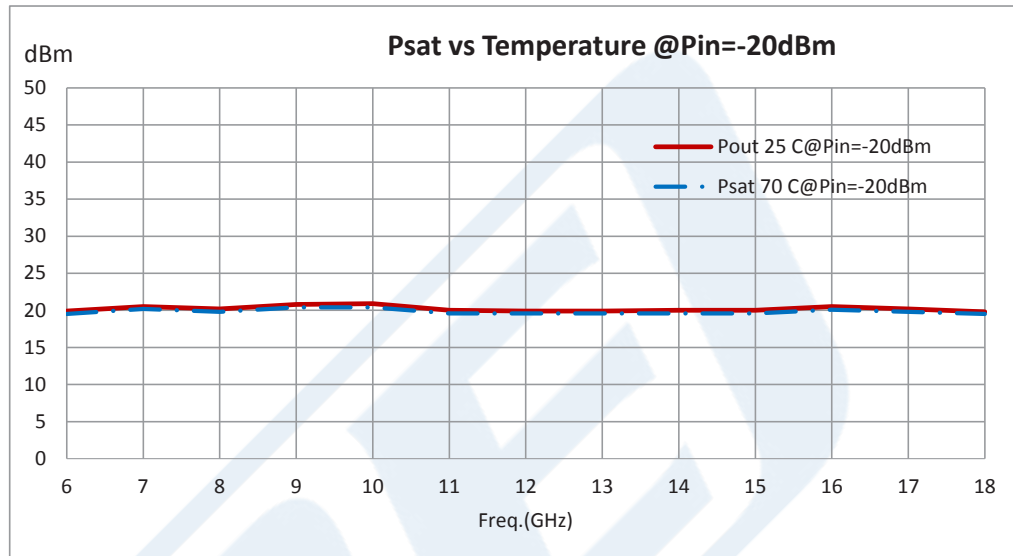
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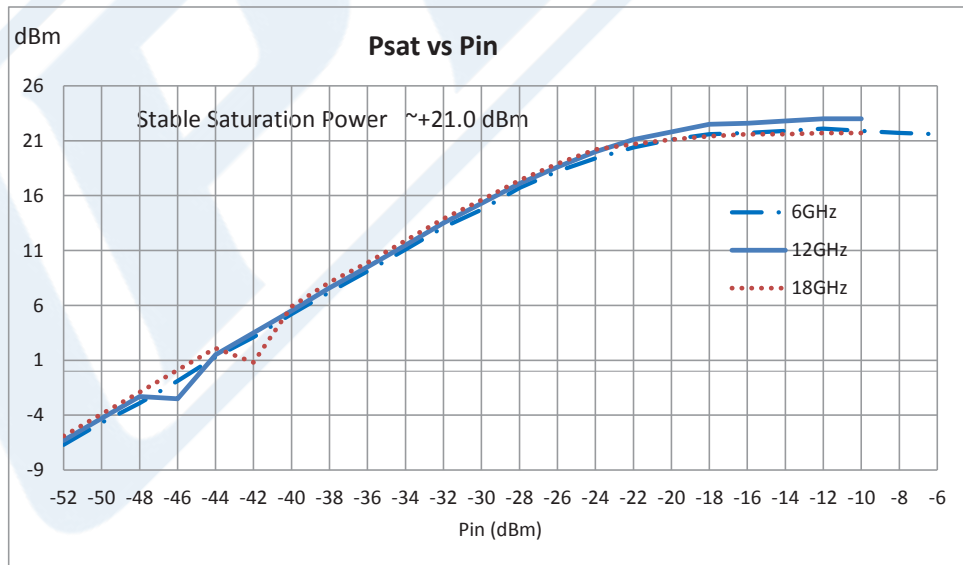
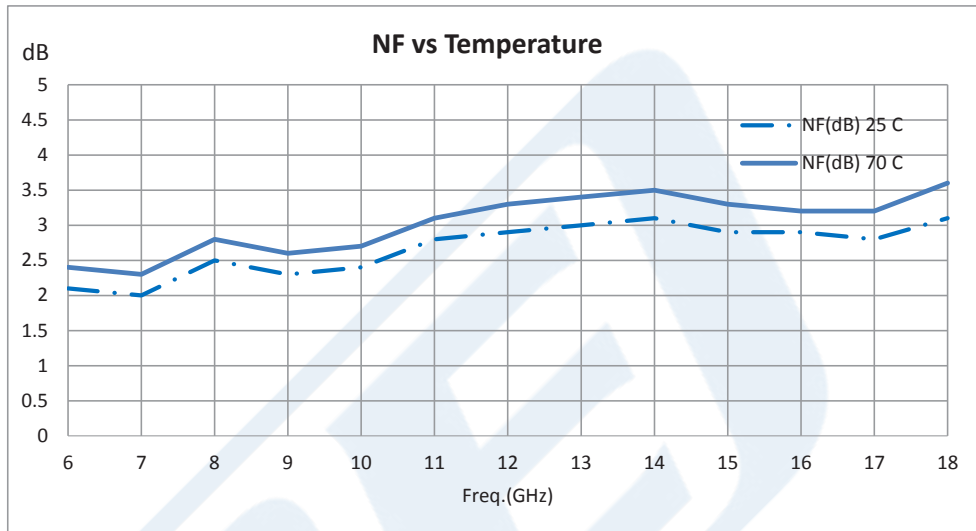
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40 dB Gain, 19 dBm Psat, 6 GHz to 18 GHz, Limiting Amplifier, -20 to 20 dBm Pin, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4%

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availability and are part of the broadest selection in the industry.

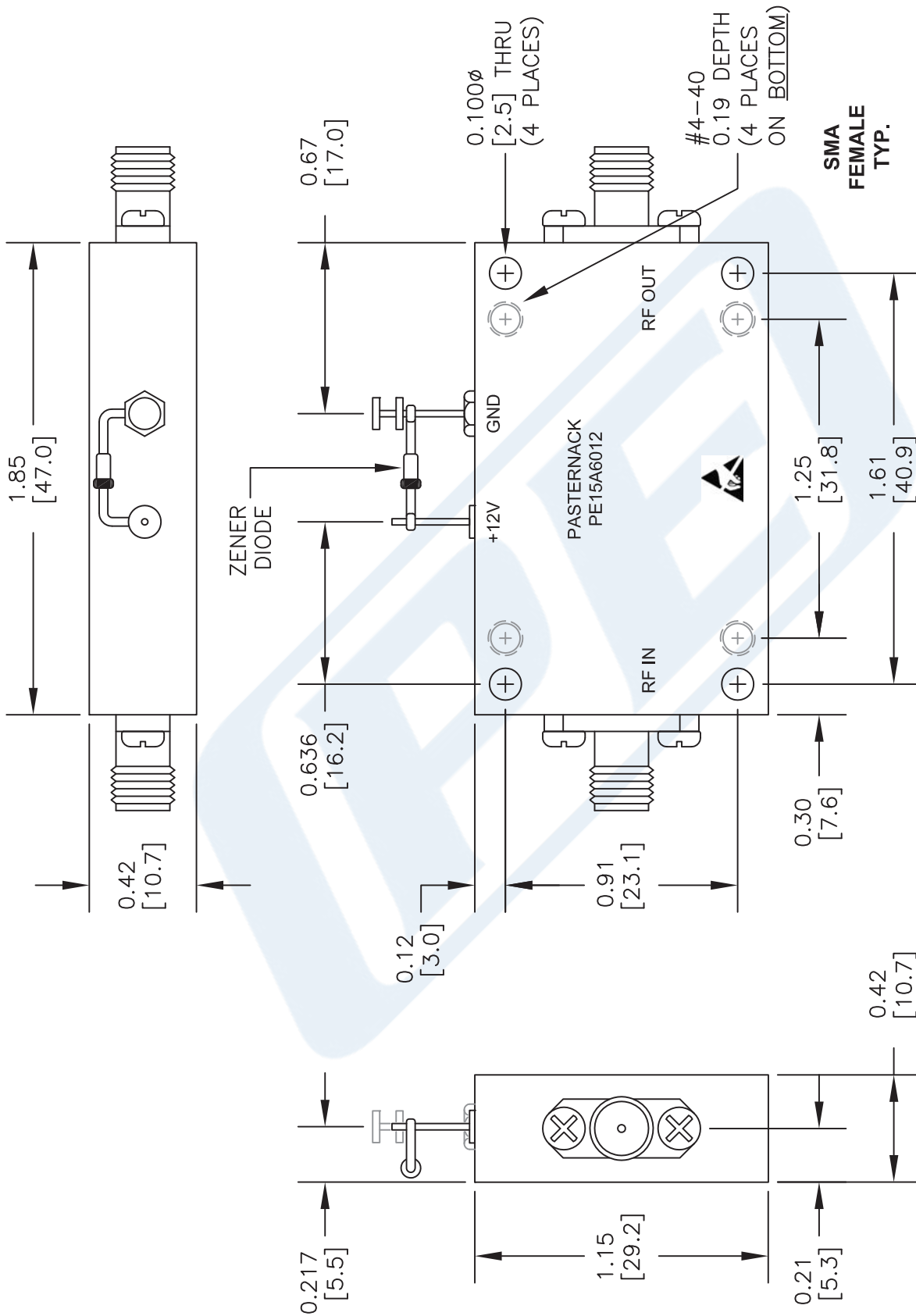
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PE15A6012 CAD Drawing

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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

PE15A6012

FSCM NO. 53919

CAD FILE 041114

SCALE N/A

SIZE A

2233



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