



61.5 dB Gain, 33 dBm IP3, 2.5 dB NF, 21 dBm Psat,  
100 MHz to 2 GHz, Low Noise Amplifier, SMA

## TECHNICAL DATA SHEET

PE15A1066

The PE15A1066 is a low noise coaxial amplifier operating in the 100 MHz to 2000 MHz frequency range. Impressive broadband typical performance includes 2.5 dB noise figure, 61.5 dB small signal gain, +19 dBm P1dB, and an output 3rd order intercept point of +33 dBm. This exceptional technical performance is achieved through the use of a hybrid MIC design and advanced Bipolar and HBT devices. The low noise amplifier requires a +12V DC power supply, and operates over a temperature range of -40°C to +85°C. The rugged and compact package supports SMA Female connectors and RFI and Ground pins. And for highly reliable operation, the model is guaranteed to meet MIL-STD-202 environmental test conditions for Humidity, Shock, Vibration, and Altitude.

### Features

- 100 MHz to 2000 MHz Frequency Range
- Low Noise Figure: 2.5 dB
- High Dynamic Range
- Efficient GaAs pHEMT Design
- Small Signal Gain: 61.5 dB
- Output P1dB: +19 dBm
- Output IP3: +33 dBm
- Operating Temperature: -40°C to +85°C
- 50 Ohm Input and Output Matched
- DC Power Supply: +12V / 170 mA
- SMA Female Connectors
- Designed to meet MIL-STD-202 Test Conditions

### Applications

- Test & Measurement
- R&D Labs
- General Purpose Amplification
- Aerospace & Defense
- Wireless Infrastructure
- Communication Systems

**Electrical Specifications** (TA = +25°C, DC Voltage = 12Vdc, DC Current = 170mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.1		2	GHz
Small Signal Gain	58	61.5		dB
Gain Flatness		±1	±1.5	dB
Output at 1 dB Compression Point	+19	+19		dBm
Saturated Output Power (Psat)	+19	+21		dBm
Output 3rd Intercept Point	+31	+33		dBm
Noise Figure		2.5	3.5	dB
Input VSWR		2.5:1	3:1	
Output VSWR		1.5:1	2:1	
Reverse Isolation		-60		dB
Operating DC Voltage	11	12	15	Volts
Operating DC Current		170	190	mA
Operating Temperature Range	-40		+85	°C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [61.5 dB Gain, 33 dBm IP3, 2.5 dB NF, 21 dBm Psat, 100 MHz to 2 GHz, Low Noise Amplifier, SMA PE15A1066](#)



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**Absolute Maximum Rating**

Parameter	Rating	Units
Supply Voltage	+20	V
RF Input Power	+13	dBm
Operating Temperature	-40 to +85	°C
Storage Temperature	-55 to +125	°C



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

**Mechanical Specifications**

**Size**

Input Connector SMA Female  
Output Connector SMA Female

**Environmental Specifications**

**Temperature**

Operating Range -40 to +85 deg C  
Storage Range -55 to +125 deg C

Humidity MIL-STD-202F, Method 103B, Condition B  
Shock MIL-STD-202F, Method 213B, Condition B  
Vibration MIL-STD-202F, Method 204D, Condition B  
Altitude MIL-STD-202F, Method 105C, Condition B

**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.

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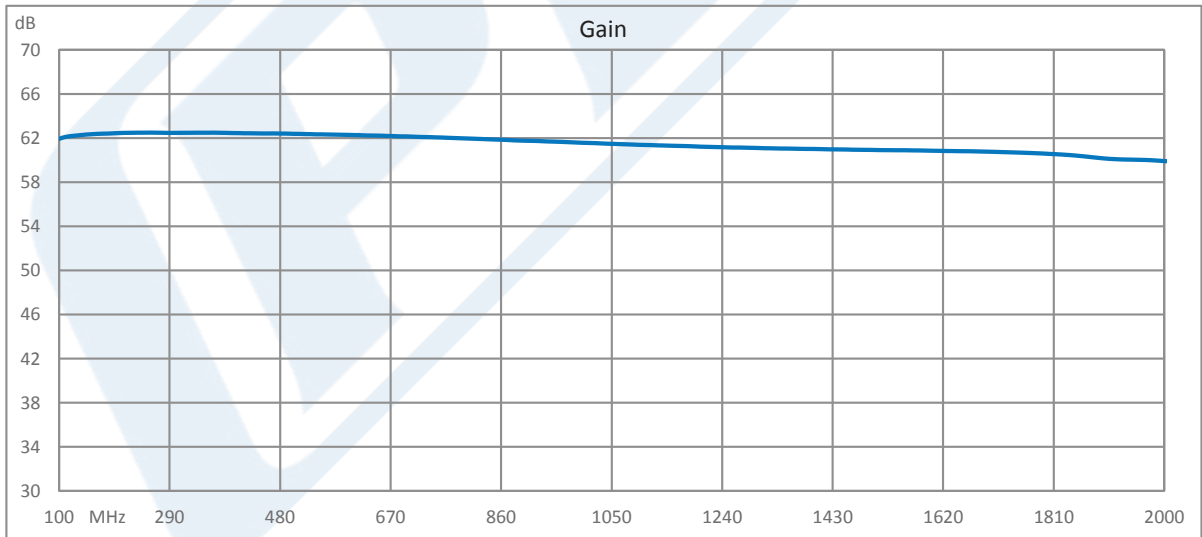
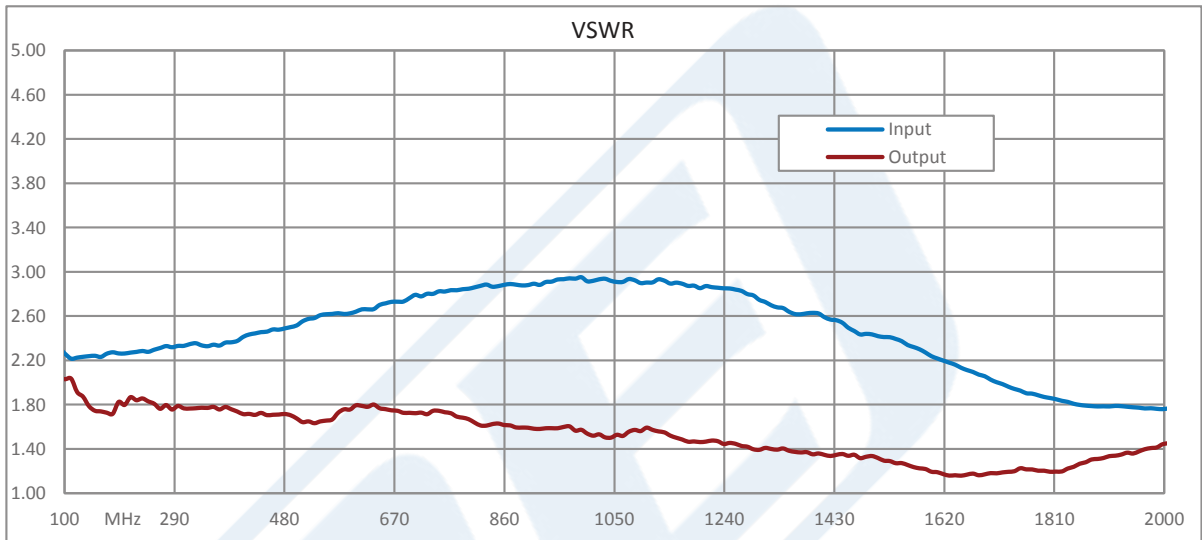


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Typical Performance Data



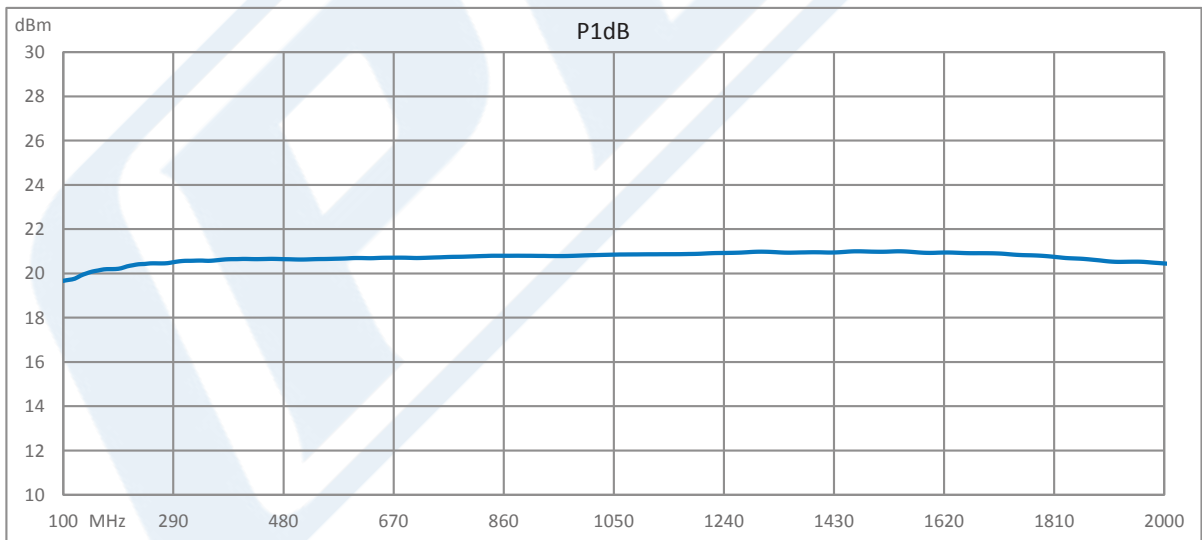
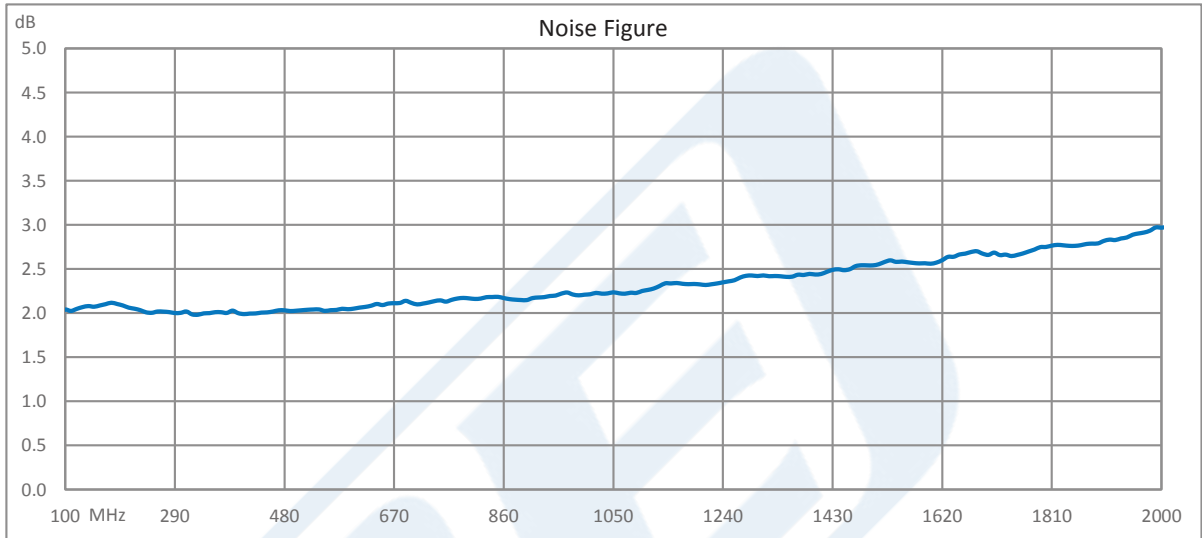
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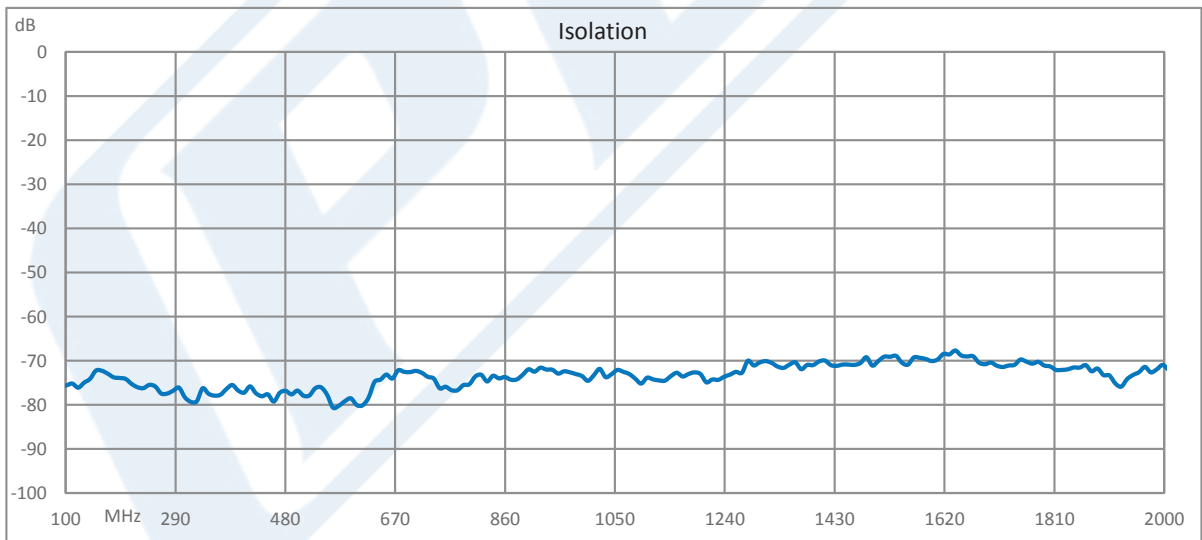
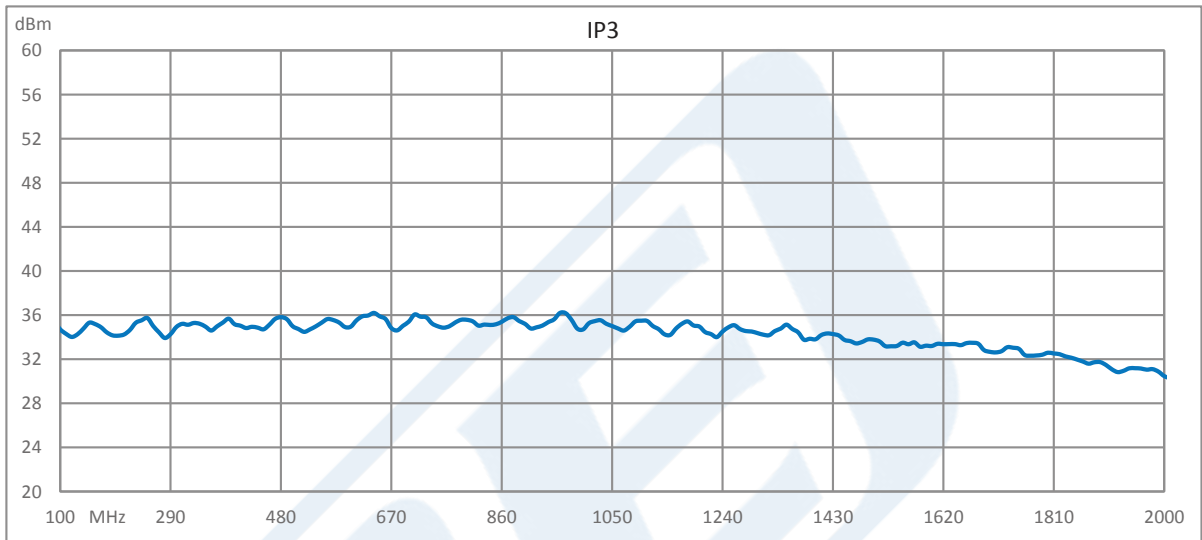
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61.5 dB Gain, 33 dBm IP3, 2.5 dB NF, 21 dBm Psat, 100 MHz to 2 GHz, Low Noise Amplifier, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

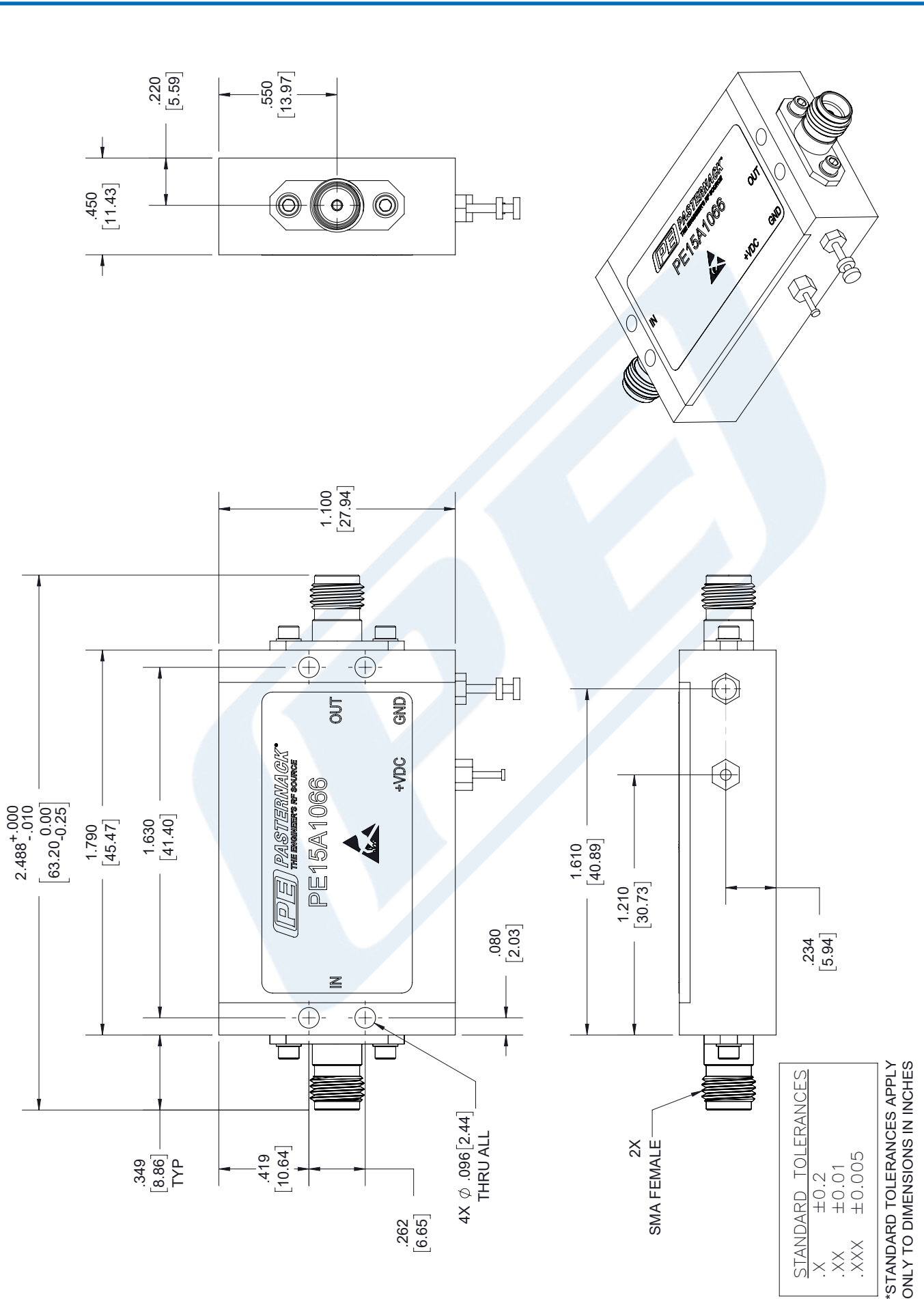
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URL: <https://www.pasternack.com/61.5-dB-Gain-33-dBm-IP3-2.5-dB-NF-21-dBm-Psat-100-MHz-to-2-GHz-Low-Noise-Amplifier-SMA-PE15A1066>

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# PE15A1066 CAD Drawing

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**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  
**PE15A1066**

CAGE CODE **53919**

SCALE N/A

SIZE A

CAD FILE 04/23/18

7361

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

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