



22 dBm IP3, 1.3 dB NF, 7 dBm P1dB, 40 MHz to 3 GHz, Low Noise Amplifier, 16 dB Gain, SMA

## TECHNICAL DATA SHEET

PE15A1060

The PE15A1060 is a low noise coaxial amplifier operating in the 40 MHz to 3000 MHz frequency range. Impressive broadband typical performance includes 1.3 dB noise figure, 16 dB small signal gain, +7 dBm P1dB, and an output 3rd order intercept point of +22 dBm. This exceptional technical performance is achieved through the use of a hybrid MIC design and advanced E-pHEMT devices. The low noise amplifier requires a +3V DC power supply, and operates over a temperature range of -40°C to +75°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

- 40 MHz to 3000 MHz Frequency Range
- Low Noise Figure: 1.3 dB
- High Dynamic Range
- Efficient GaAs pHEMT Design
- Small Signal Gain: 16 dB
- Output P1dB: +7 dBm
- Output IP3: +22 dBm
- Operating Temperature: -40°C to +75°C
- 50 Ohm Input and Output Matched
- DC Power Supply: +3V / 18 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 = 3Vdc, DC Current = 18mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.04		3	GHz
Small Signal Gain	11	16		dB
Gain Flatness		±1.6	±2	dB
Output at 1 dB Compression Point	+7	+7		dBm
Output 3rd Intercept Point	+20	+22		dBm
Noise Figure		1.3	1.8	dB
Input VSWR		1.5:1	2:1	
Output VSWR		1.5:1	2:1	
Reverse Isolation		-20		dB
Operating DC Voltage	2.7	3	3.3	Volts
Operating DC Current		18	25	mA
Operating Temperature Range	-40		+75	°C

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**Absolute Maximum Rating**

Parameter	Rating	Units
Supply Voltage	+7	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 +75 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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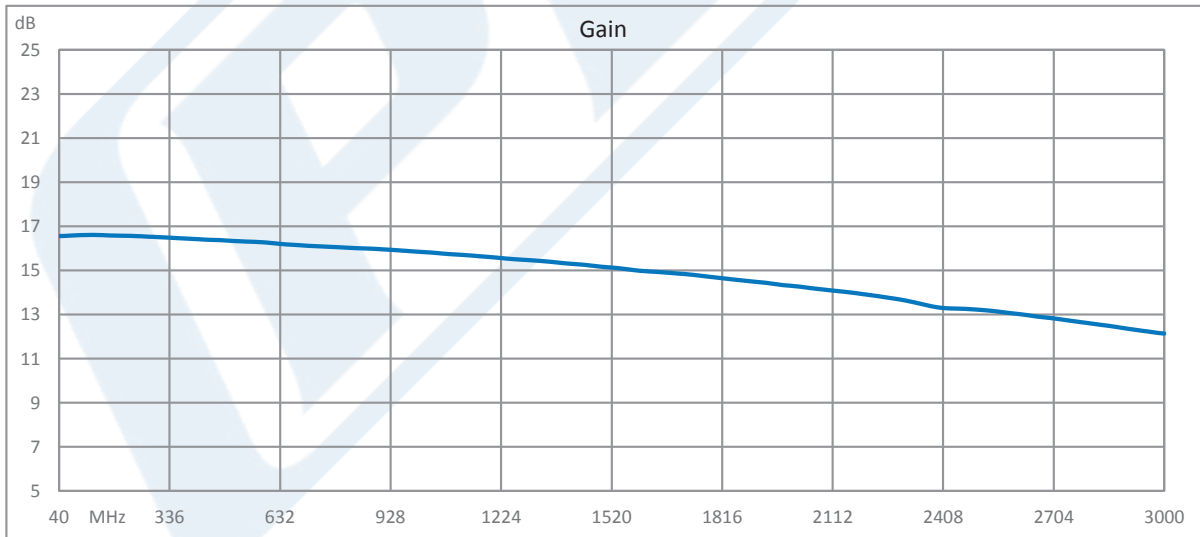
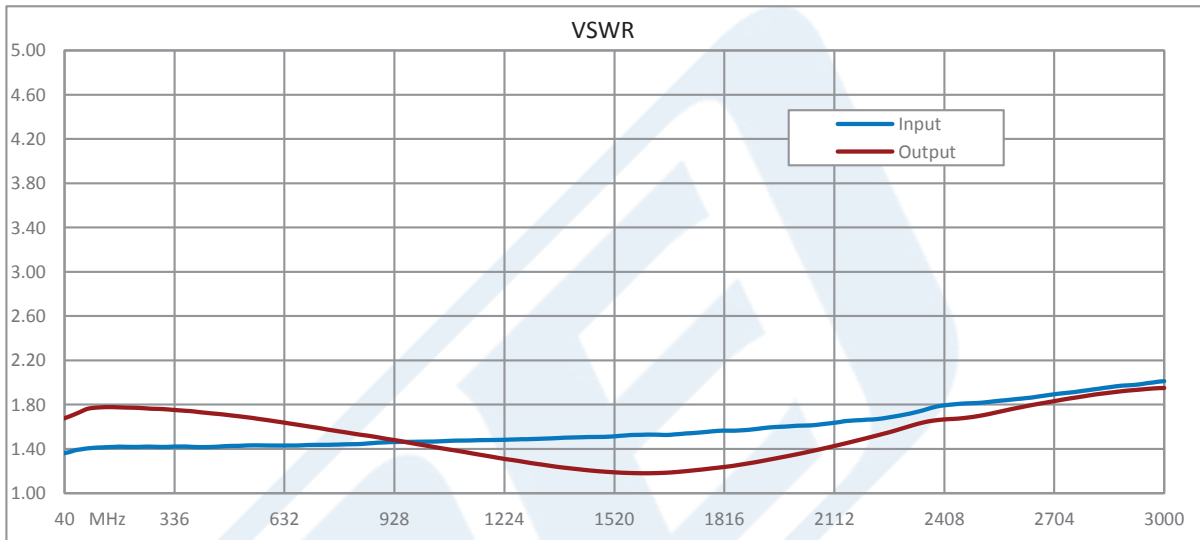


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Typical Performance Data



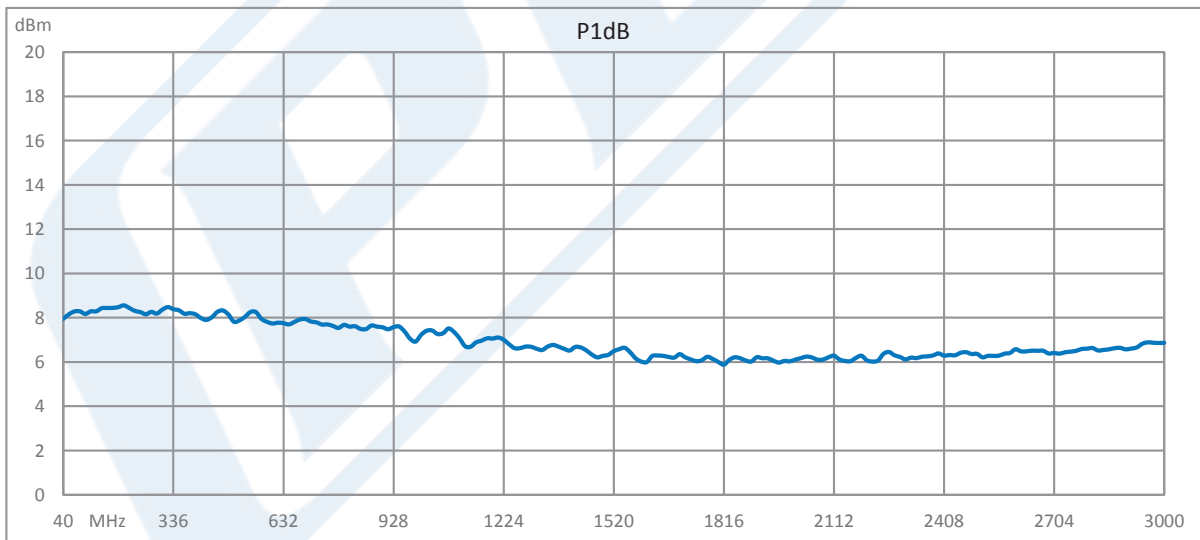
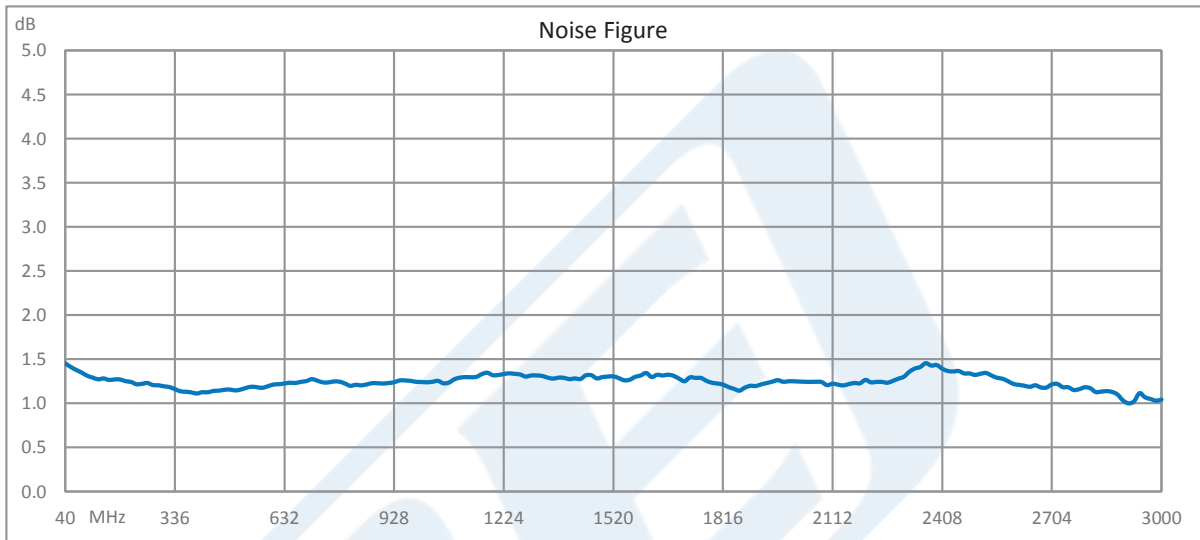
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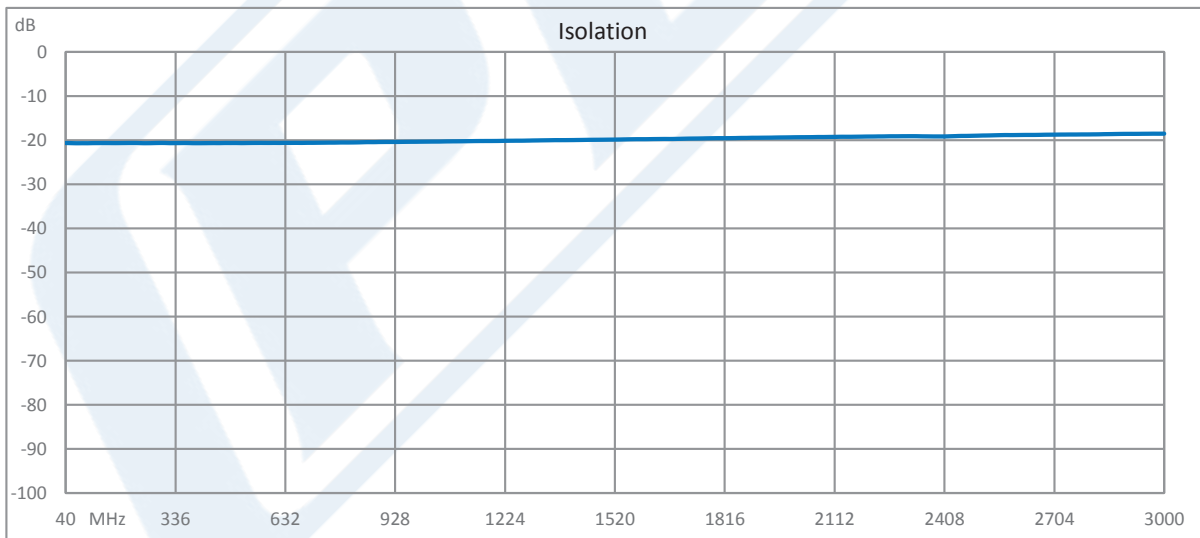
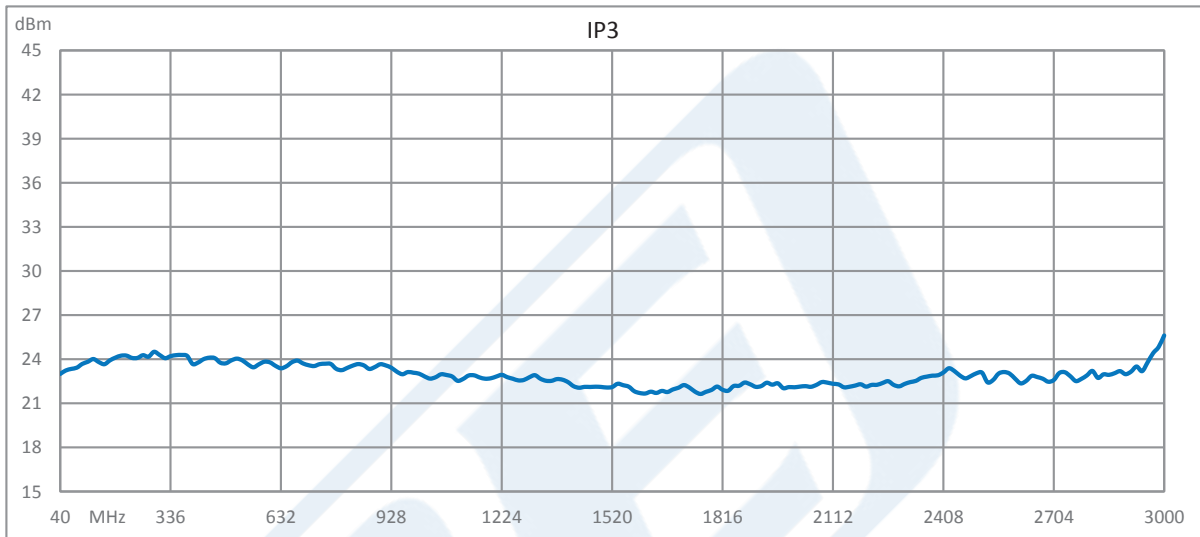
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22 dBm IP3, 1.3 dB NF, 7 dBm P1dB, 40 MHz to 3 GHz, Low Noise Amplifier, 16 dB Gain, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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