



3.2 dB NF, 13 dBm P1dB, 2 GHz to 18 GHz, Low Noise Broadband Amplifier, 22 dB Gain, SMA

TECHNICAL DATA SHEET

PE15A3301

The PE15A3301 is a broadband coaxial Low Noise amplifier, operating in the 2 to 18 GHz frequency range. This amplifier offers exceptional typical performance that includes 22 dB gain, 3.2 dB noise figure, and +13 dBm output P1B. This technical performance is achieved through the use of thin film hybrid technology with advanced GaAs devices. The low noise amplifier requires +12V DC power supply with internal voltage regulation and operates over a temperature range of 0°C to +50°C. The drop-in package supports field replaceable SMA connectors and is highly reliable and guaranteed to meet MIL-STD-202 environmental test conditions for humidity, shock, vibration, and altitude.

Features

- 2 to 18 GHz Frequency Range
- P1dB: 10 dBm min.
- Small Signal Gain: 22 dB typ.
- Gain Flatness: ± 2.5 dB max.
- 50 Ohm Input and Output Matched
- 0 to 50°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Field Replaceable SMA Female
- Internal Voltage Regulation

Applications

- Laboratory Applications
- R&D Labs
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communications
- Wireless Communications
- Unmanned Systems
- Microwave Radio Systems
- Low Noise Amplifier
- General Purpose Amplification
- RF Front Ends

Electrical Specifications (TA= 25°C, VDC1 = 12 Vdc)

Description	Minimum	Typical	Maximum	Units
Frequency Range	2		18	GHz
Gain	20	22		dB
Gain Flatness			± 2.5	dB
Output at 1 dB Compression Point	+10	+13		dBm
Input Power			+10	dBm
Noise Figure		3.2	3.5	dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage 1		12	15.5	Volts
Operating DC Current		100		mA
Operating Temperature Range (OTR)	0		+50	°C

Electrical Specification Notes:

No series Capacitor at RF Input. DC Voltage at RF Input may damage amplifier.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [3.2 dB NF, 13 dBm P1dB, 2 GHz to 18 GHz, Low Noise Broadband Amplifier, 22 dB Gain, SMA PE15A3301](#)



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Mechanical Specifications

Size

Length 1.08 in [27.43 mm]
Width 0.75 in [19.05 mm]
Height 0.35 in [8.89 mm]

Connector Option Field Replaceable
Input Connector SMA Female
Output Connector SMA Female

Environmental Specifications

Temperature

Operating Range 0 to +50 deg C
Storage Range -40 to +100 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:

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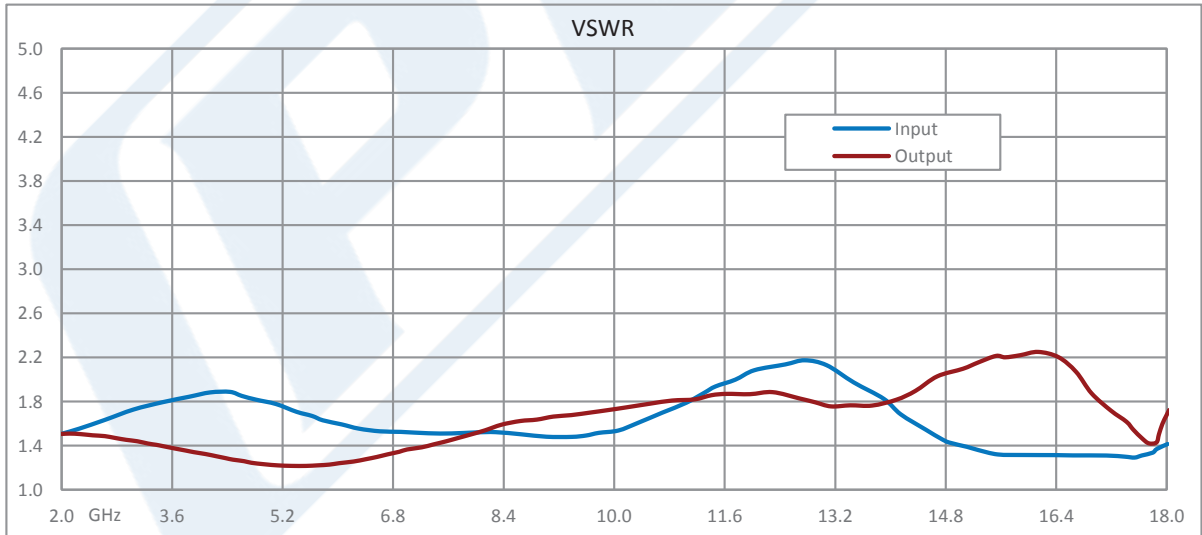
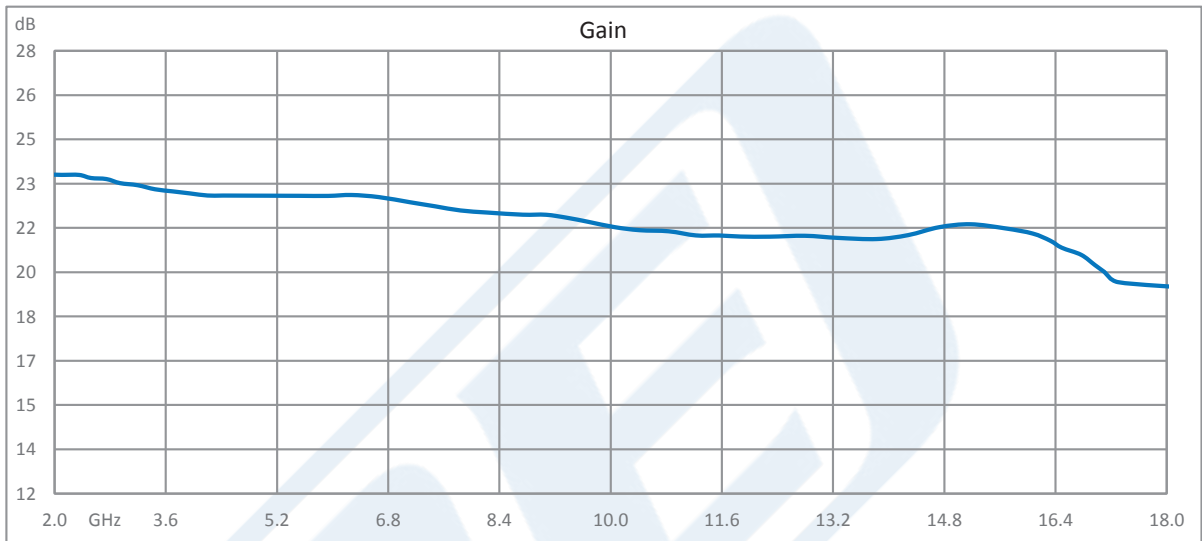


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Typical Performance Data



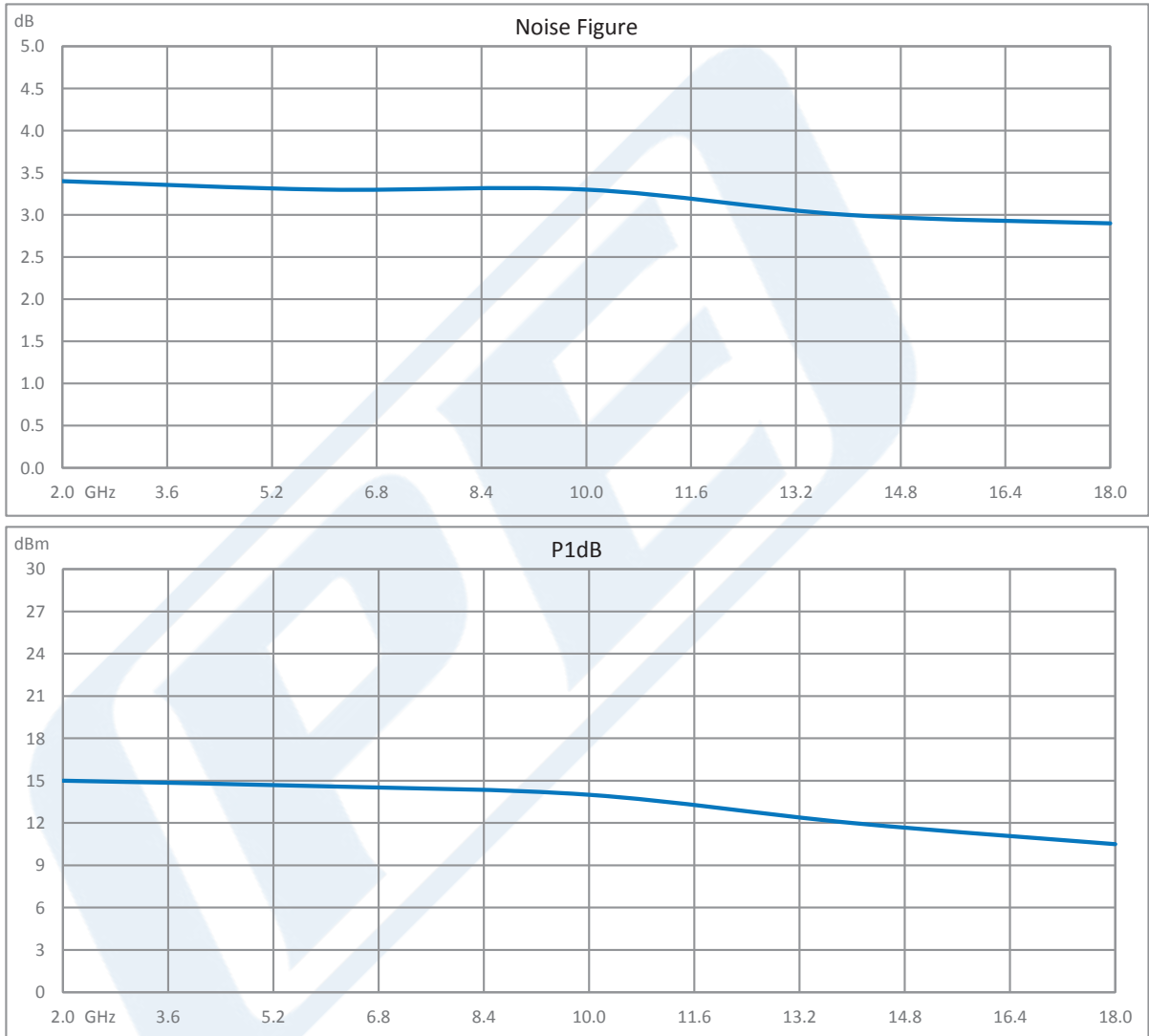
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3.2 dB NF, 13 dBm P1dB, 2 GHz to 18 GHz, Low Noise Broadband Amplifier, 22 dB Gain, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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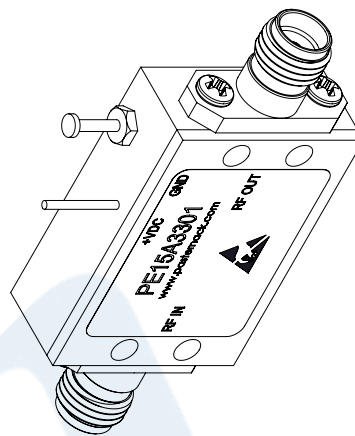
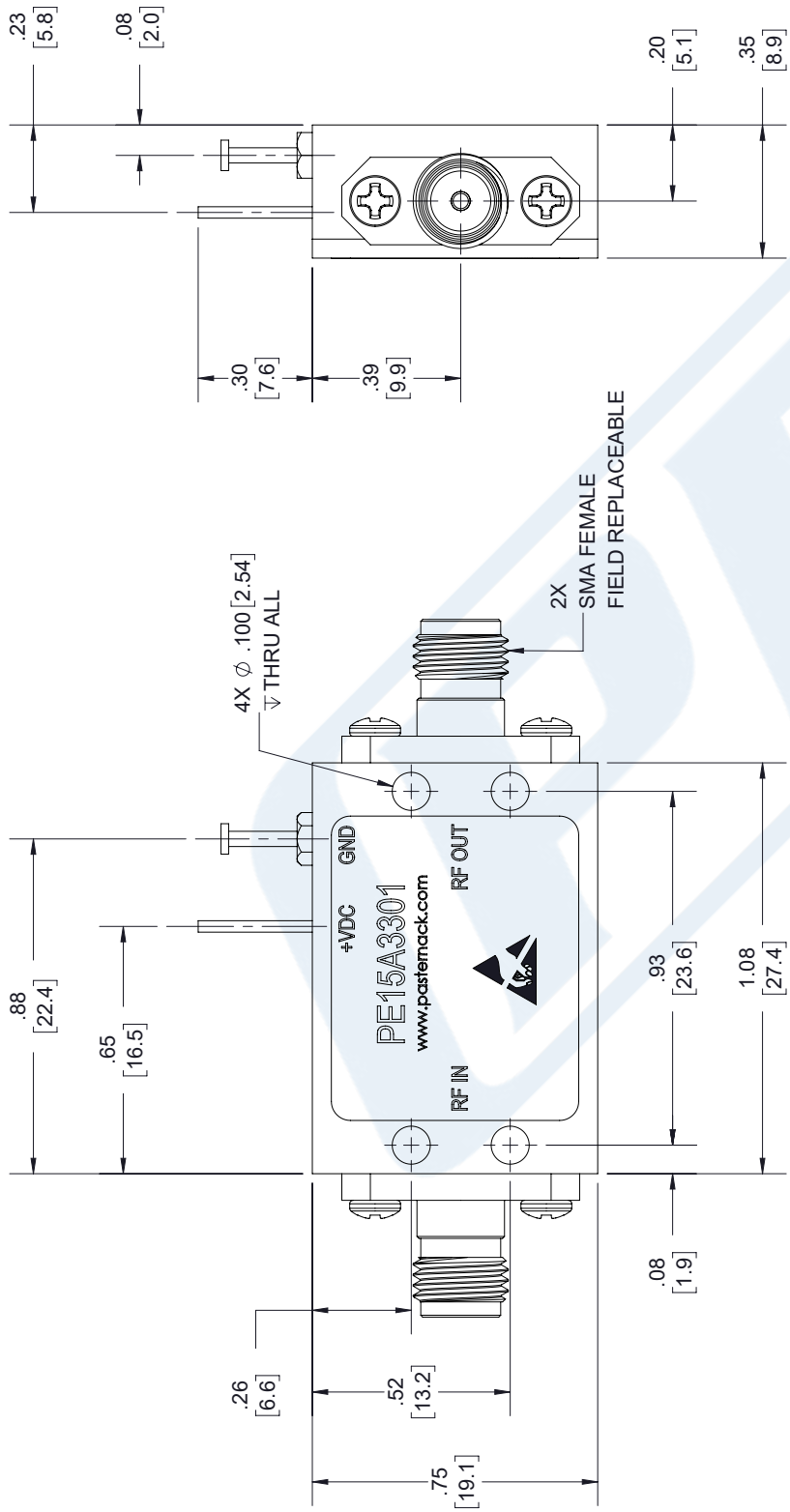
URL: <https://www.pasternack.com/3.2-db-18-ghz-low-noise-broadband-amplifier-22-db-gain-sma-pe15a3301-p.aspx>

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PE15A3301 CAD Drawing

3.2 dB NF, 13 dBm P1dB, 2 GHz to 18 GHz, Low Noise

Broadband Amplifier, 22 dB Gain, SMA



STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



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DWG TITLE

PE15A3301

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].

CAGE CODE 53919

CAD FILE 05/15/18 SCALE N/A

SIZE A

7361