



52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm

TECHNICAL DATA SHEET

PE15A3307

The PE15A3307 is a broadband coaxial Low Noise amplifier, operating in the 26.5 to 40 GHz frequency range. This amplifier offers exceptional typical performance that includes 52 dB gain, 3.3 dB noise figure, and +12 dBm output P1dB. This technical performance is achieved through the use of thin film technology with advanced GaAs devices. The low noise amplifier requires a +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

- 26.5 to 40 GHz Frequency Range
- P1dB: 12 dBm typ.
- Small Signal Gain: 52 dB typ.
- Gain Flatness: ± 3.5 dB max.
- 50 Ohm Input and Output Matched
- 0 to 50°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Field Replaceable 2.92mm 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	26.5		40	GHz
Gain	50	52		dB
Gain Flatness			± 3.5	dB
Output at 1 dB Compression Point	+10	+12		dBm
Input Power			-20	dBm
Noise Figure		3.3	4	dB
Input VSWR		1.8:1	2.5:1	
Output VSWR		1.8:1	2.5:1	
Operating DC Voltage 1		12	16	Volts
Operating DC Current		375		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. Heatsink is required before applying DC power

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm PE15A3307](#)



52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm

TECHNICAL DATA SHEET

PE15A3307

Mechanical Specifications

Size

Length 0.75 in [19.05 mm]
Width 0.7 in [17.78 mm]
Height 0.3 in [7.62 mm]

Connector Option Field Replaceable
Input Connector 2.92mm Female
Output Connector 2.92mm 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:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm PE15A3307](#)

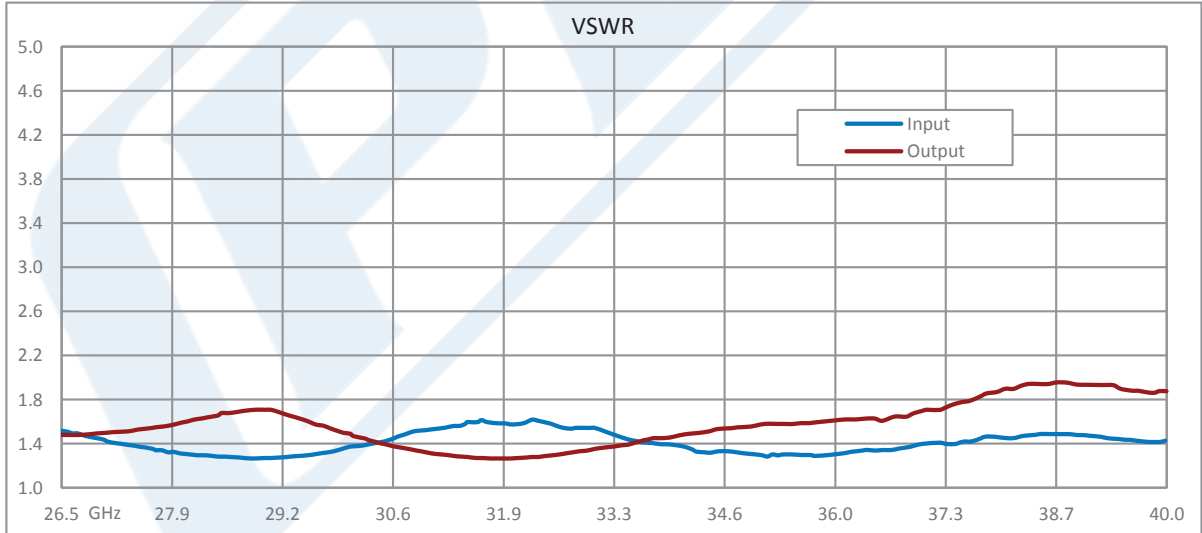
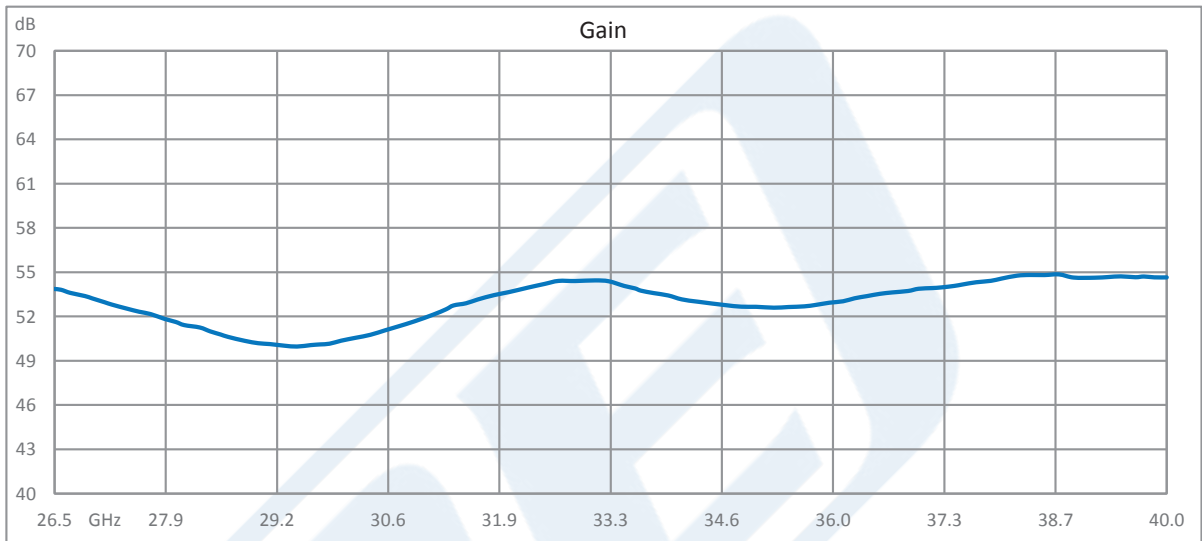


52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm

TECHNICAL DATA SHEET

PE15A3307

Typical Performance Data



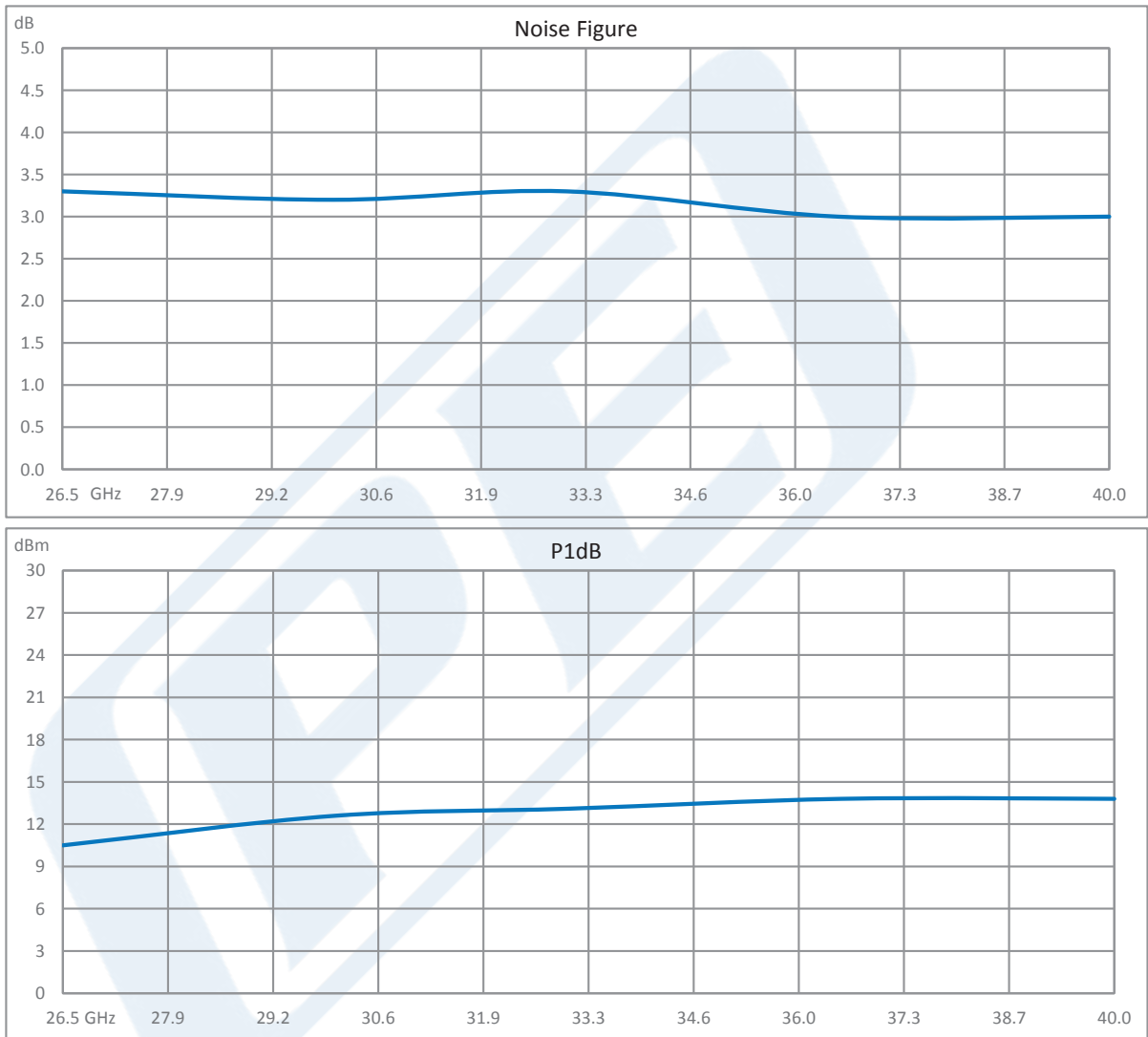
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm PE15A3307](#)



52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm

TECHNICAL DATA SHEET

PE15A3307



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm PE15A3307](#)



52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm

TECHNICAL DATA SHEET

PE15A3307

52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm 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.

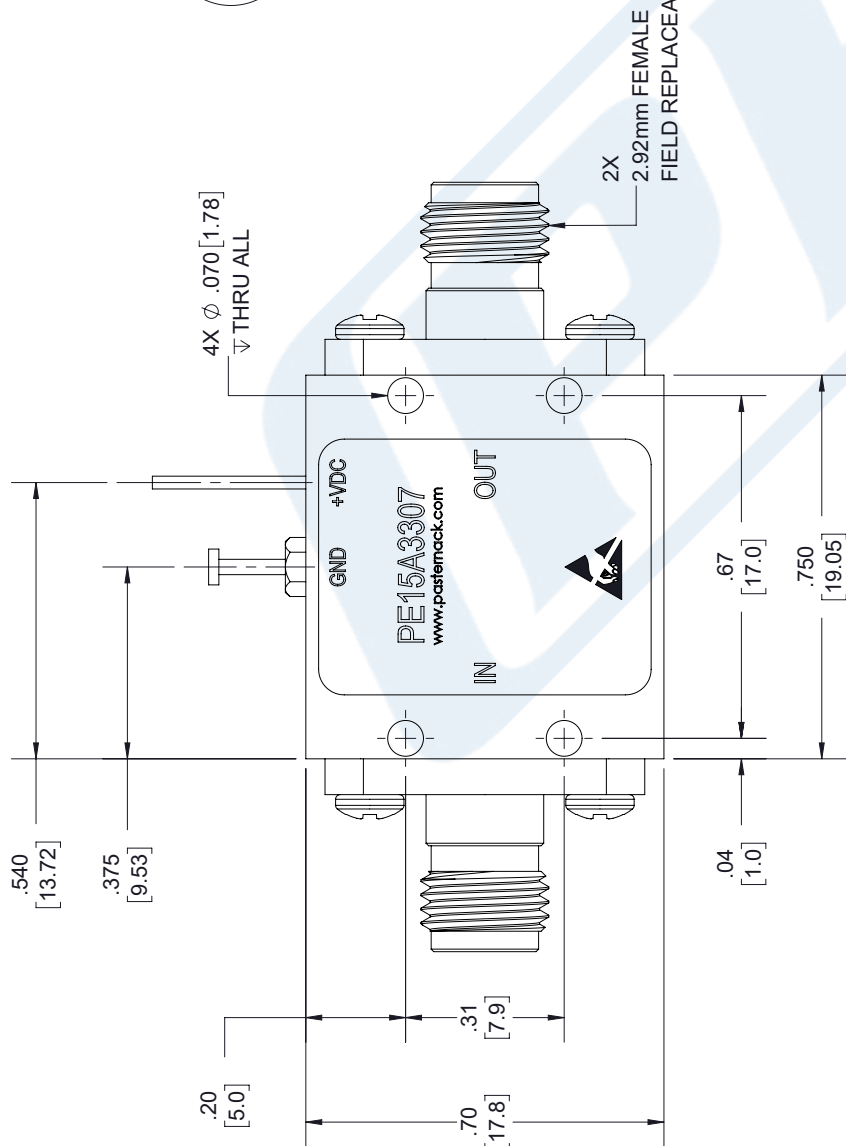
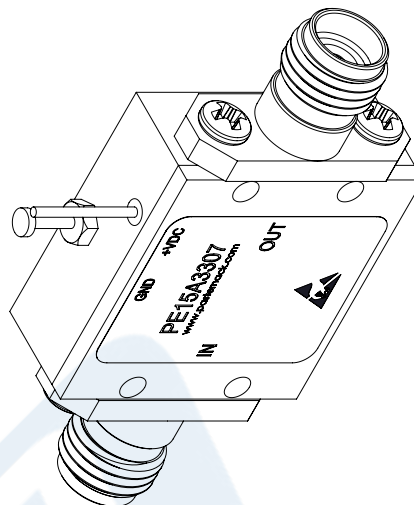
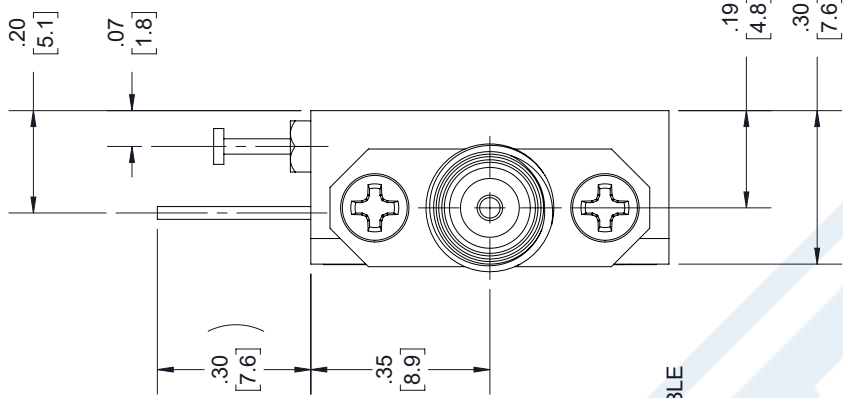
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm PE15A3307](https://www.pasternack.com/52-db-gain-3.3-db-40-ghz-low-noise-broadband-amplifier-2.92mm-pe15a3307-p.aspx)

URL: <https://www.pasternack.com/52-db-gain-3.3-db-40-ghz-low-noise-broadband-amplifier-2.92mm-pe15a3307-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE15A3307 CAD Drawing

52 dB Gain, 3.3 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz,
Low Noise Broadband Amplifier, 2.92mm



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

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623

Phone: (949) 261-1920 | Fax: (949) 261-7451
Website: www.pasternack.com | E-Mail: sales@pasternack.com

DWG TITLE

PE15A3307

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