



2.3 dB NF, 14 dBm P1dB, 6 GHz to 18 GHz, Low Noise Broadband Amplifier, 32 dB Gain, SMA

TECHNICAL DATA SHEET

PE15A3302

The PE15A3302 is a broadband coaxial Low Noise amplifier, operating in the 6 to 18 GHz frequency range. This amplifier offers exceptional typical performance that includes 32 dB gain, 2.3 dB noise figure, and +14 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

- 6 to 18 GHz Frequency Range
- P1dB: 14 dBm typ.
- Small Signal Gain: 32 dB typ.
- Gain Flatness: ± 1.5 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	6		18	GHz
Gain	20	32		dB
Gain Flatness			± 1.5	dB
Output at 1 dB Compression Point	+8	+14		dBm
Input Power			+10	dBm
Noise Figure		2.3	2.5	dB
Input VSWR		1.8:1	2:1	
Output VSWR		1.8:1	2:1	
Operating DC Voltage 1		12	16	Volts
Operating DC Current		150		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: [2.3 dB NF, 14 dBm P1dB, 6 GHz to 18 GHz, Low Noise Broadband Amplifier, 32 dB Gain, SMA PE15A3302](#)



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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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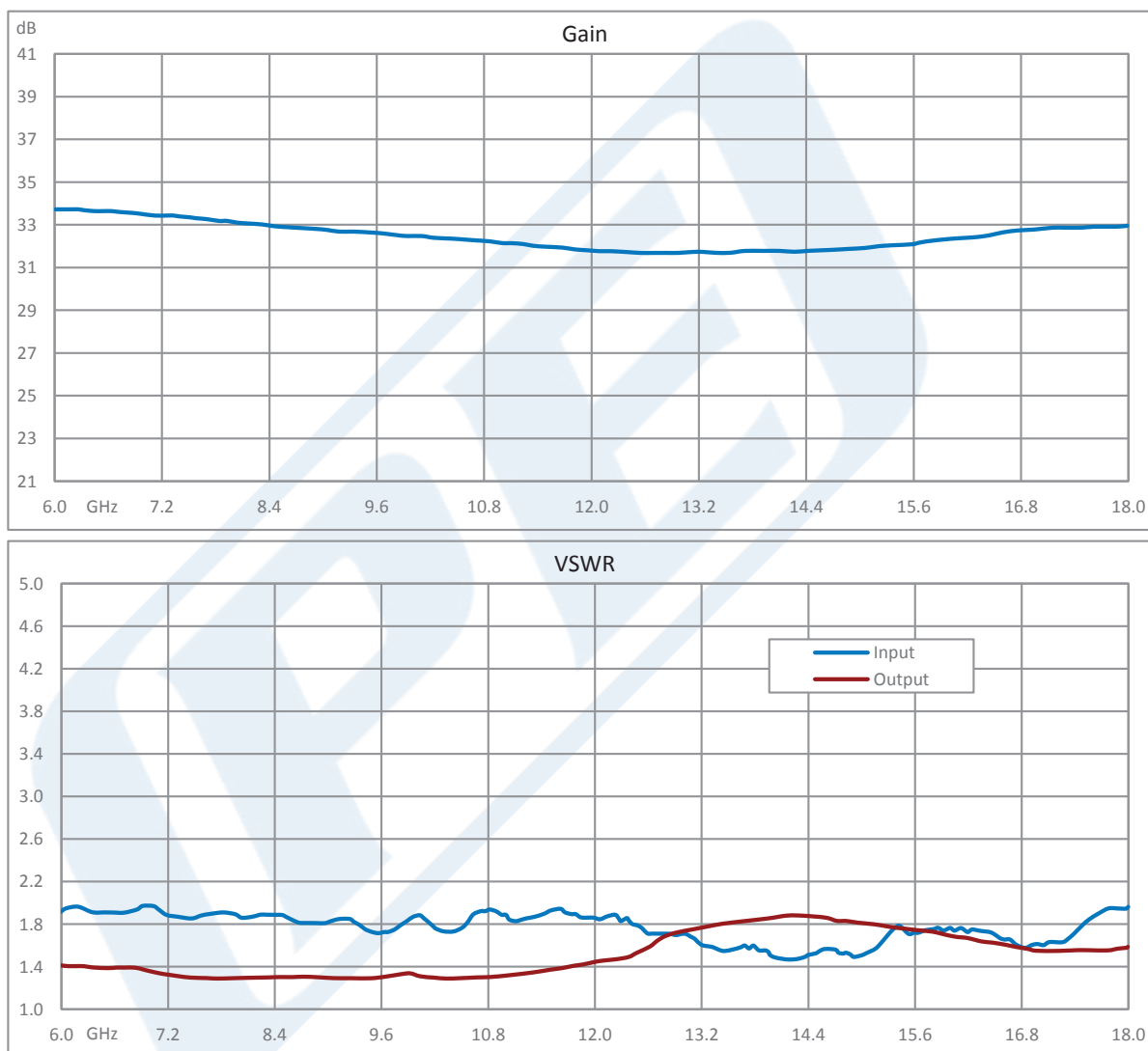


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Typical Performance Data



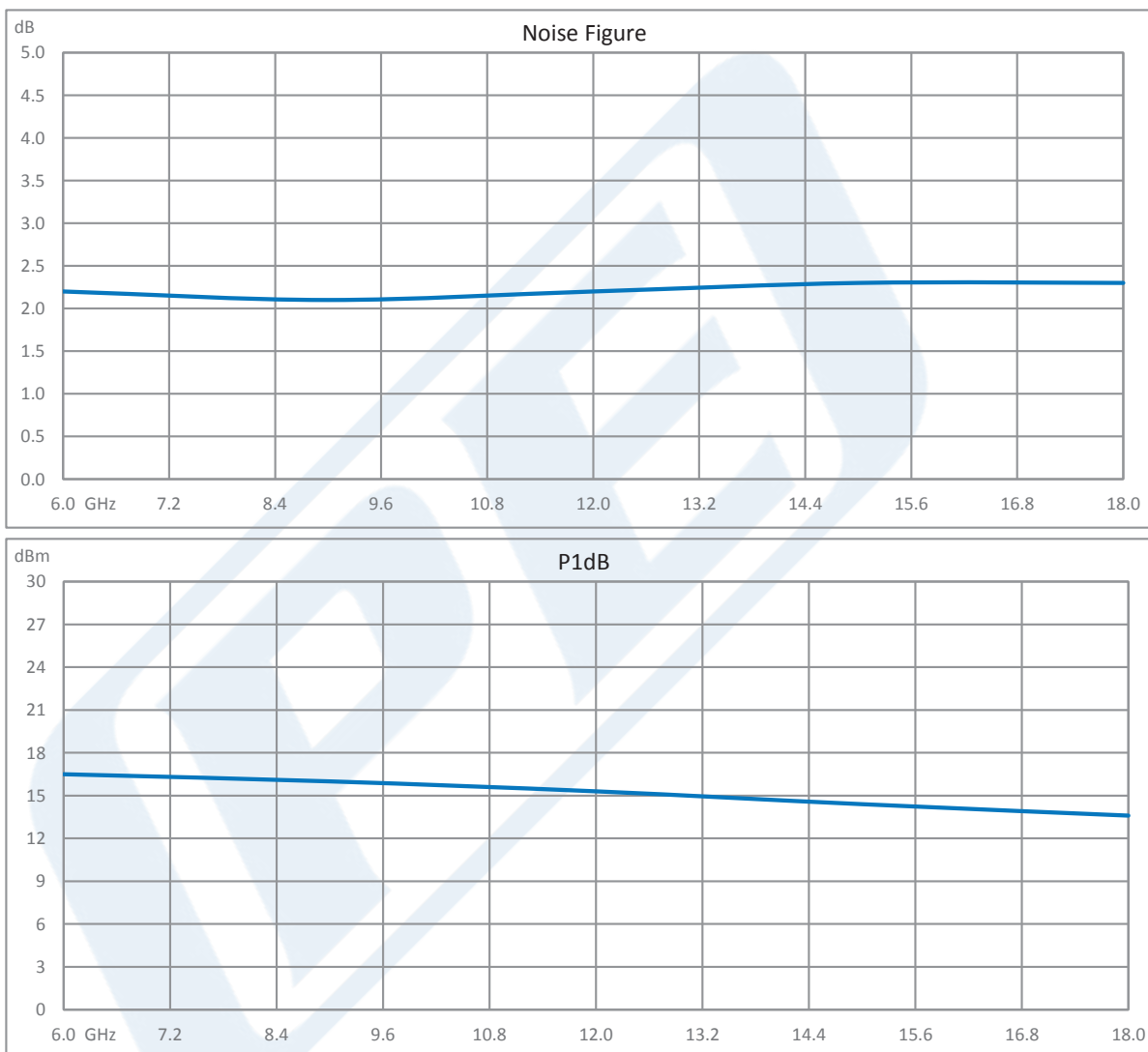
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2.3 dB NF, 14 dBm P1dB, 6 GHz to 18 GHz, Low Noise Broadband Amplifier, 32 dB Gain, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

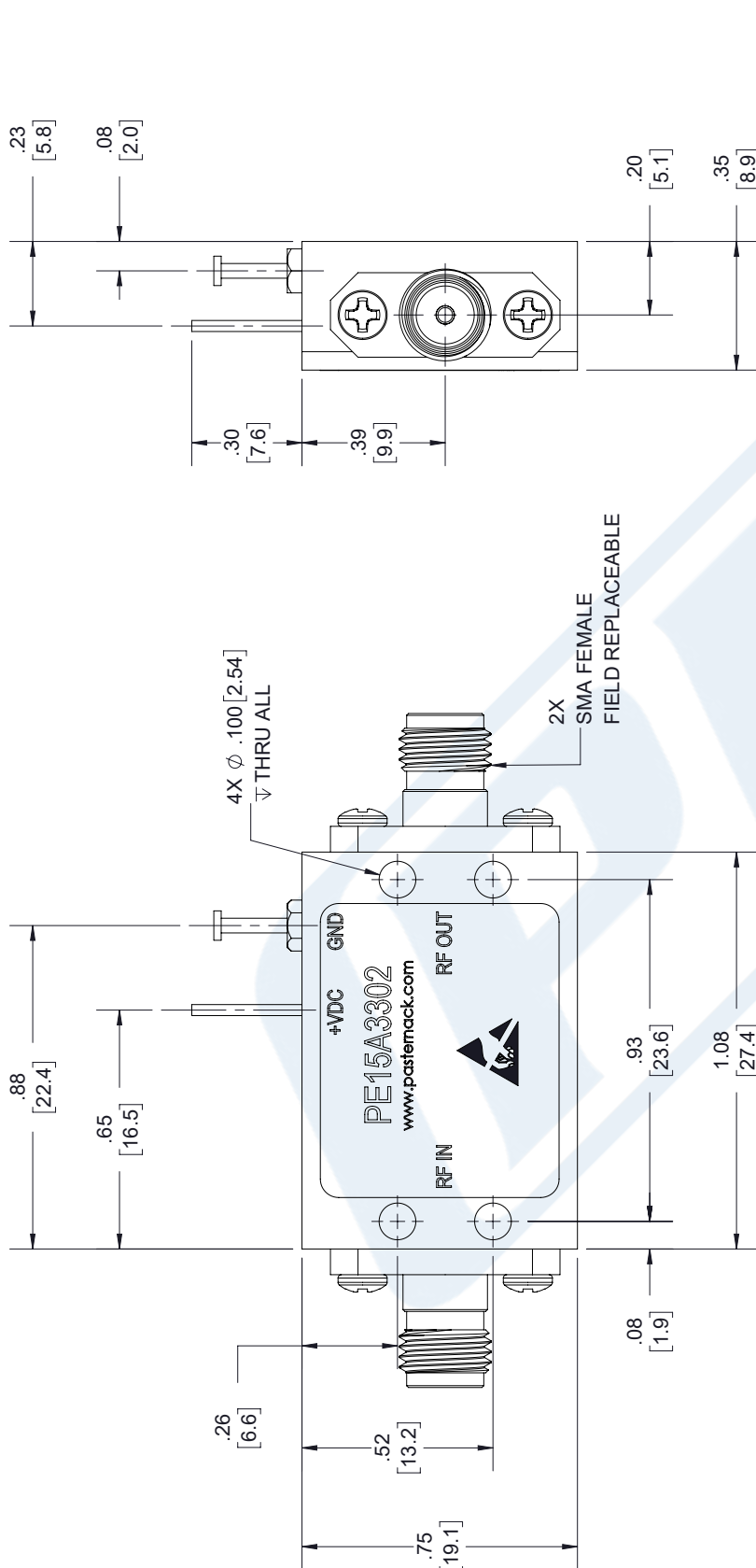
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

PE15A3302 CAD Drawing

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Broadband Amplifier, 32 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

PE15A3302

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