



44 dB Gain, 4 dB NF, 11 dBm P1dB, 18 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm

TECHNICAL DATA SHEET

PE15A3305

The PE15A3305 is a broadband coaxial Low Noise amplifier, operating in the 18 to 40 GHz frequency range. This amplifier offers exceptional typical performance that includes 44 dB gain, 4 dB noise figure, and +11 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 and operates over a temperature range of 0°C to +50°C. The drop-in package supports field replaceable 2.92mm connectors and is highly reliable and guaranteed to meet MIL-STD-202 environmental test conditions for humidity, shock, vibration, and altitude.

Features

- 18 to 40 GHz Frequency Range
- P1dB: 11 dBm typ.
- Small Signal Gain: 44 dB typ.
- 50 Ohm Input and Output Matched
- 0 to 50°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Field Replaceable 2.92mm Female

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	18		40	GHz
Gain	40	44		dB
Gain Flatness			±4	dB
Output at 1 dB Compression Point	+10	+11		dBm
Input Power			-10	dBm
Noise Figure		4	4.5	dB
Input VSWR		2.1:1	2.3:1	
Output VSWR		1.9:1	2.3:1	
Operating DC Voltage 1		12	13	Volts
Operating DC Current		250		mA
Operating Temperature Range (OTR)	0		+50	°C

Electrical Specification Notes:

No Series Capacitor at RF input. DC Voltage at RF Input may damage the 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: [44 dB Gain, 4 dB NF, 11 dBm P1dB, 18 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm PE15A3305](#)



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Absolute Maximum Rating

Parameter	Rating	Unit
Max RF Input Power	-10	dBm
Max Operating Voltage	+13	Volts



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

Mechanical Specifications

Size

Length	1.27 in [32.26 mm]
Width	1.48 in [37.59 mm]
Height	0.35 in [8.89 mm]

Connector Option

Input Connector	Field Replaceable 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:

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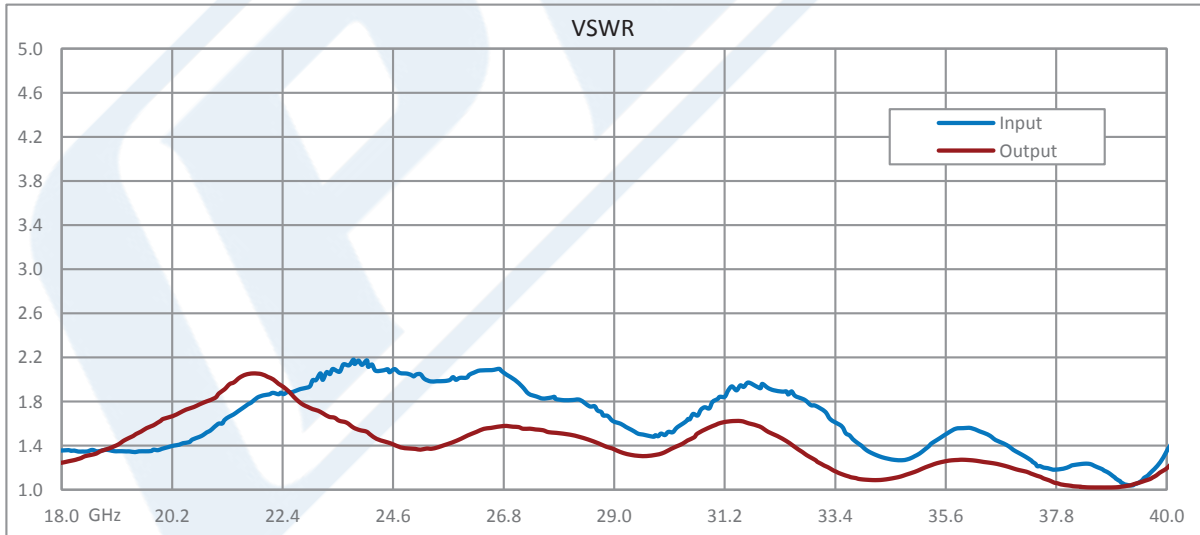
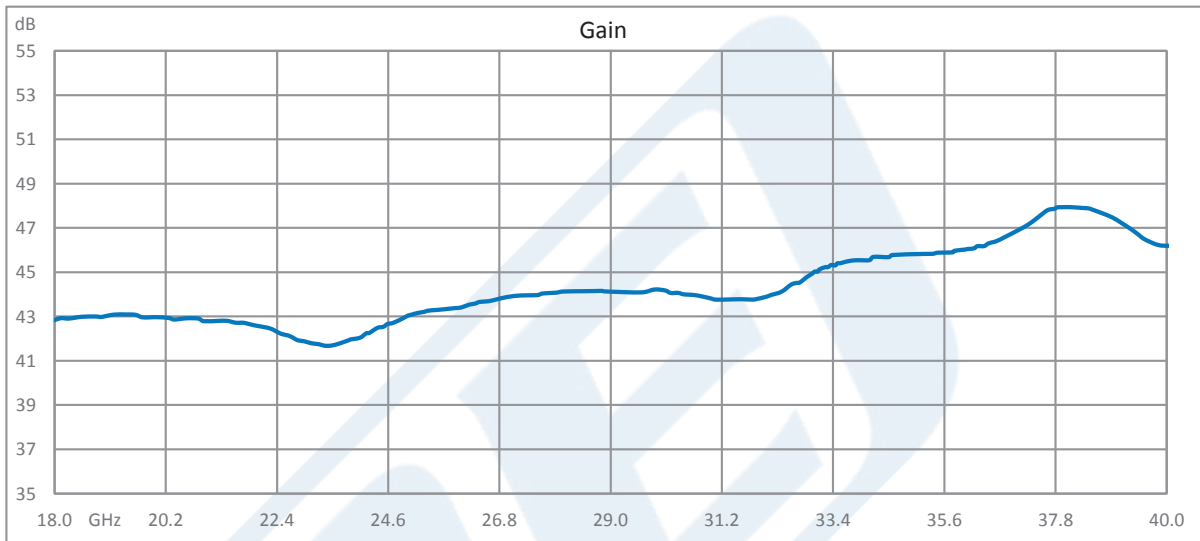


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Typical Performance Data



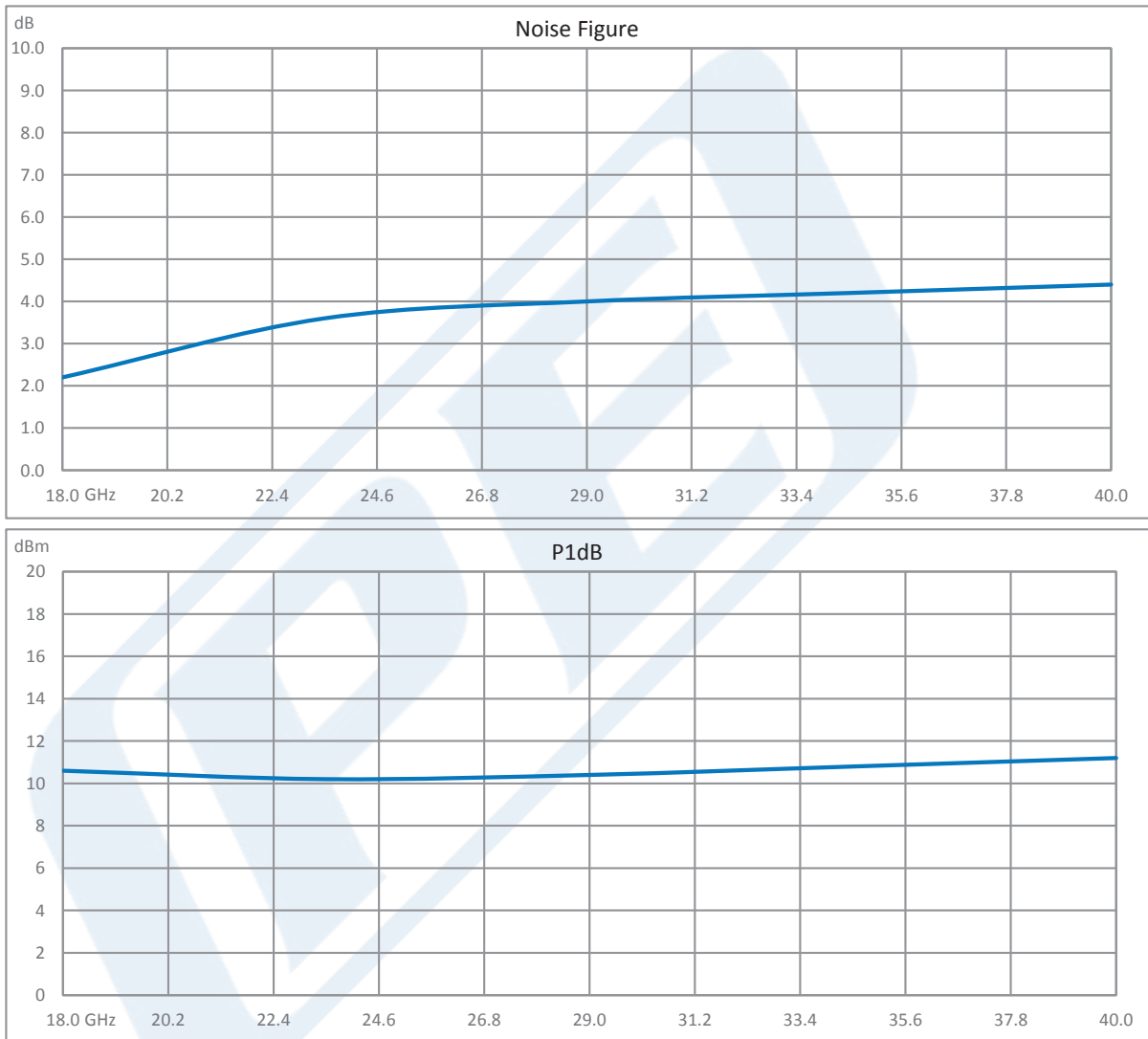
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44 dB Gain, 4 dB NF, 11 dBm P1dB, 18 GHz to 40 GHz, Low Noise Broadband Amplifier, 2.92mm from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

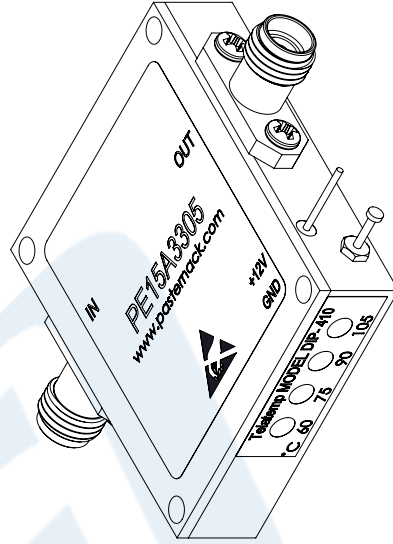
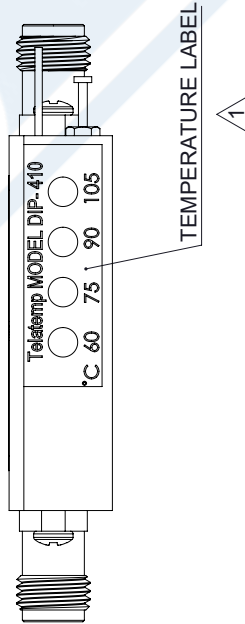
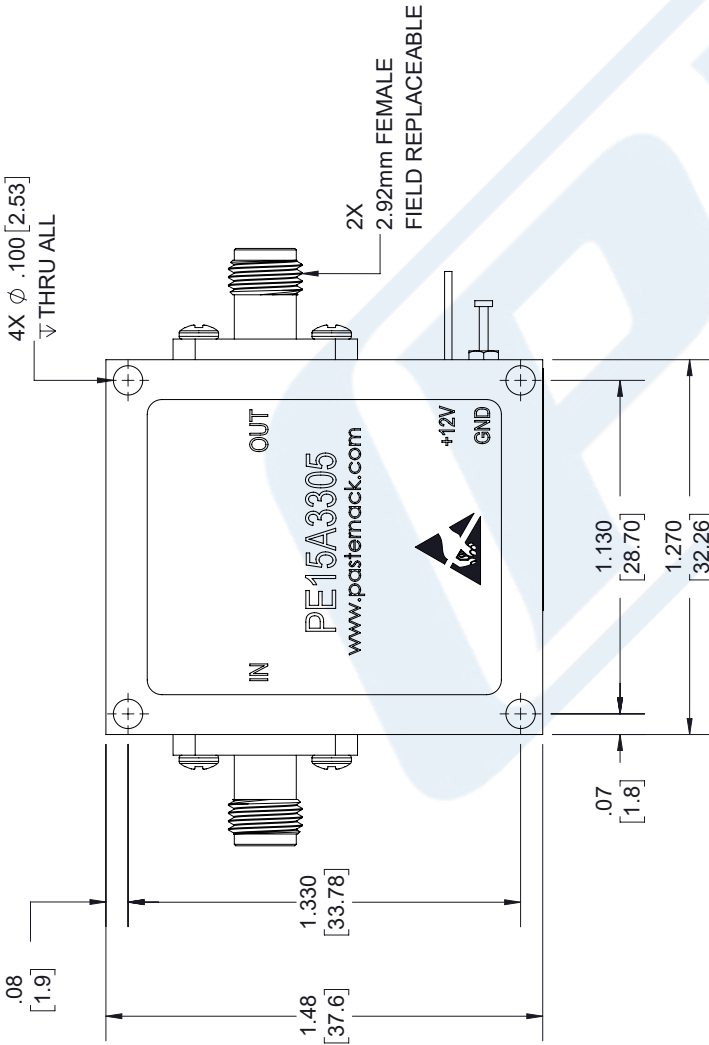
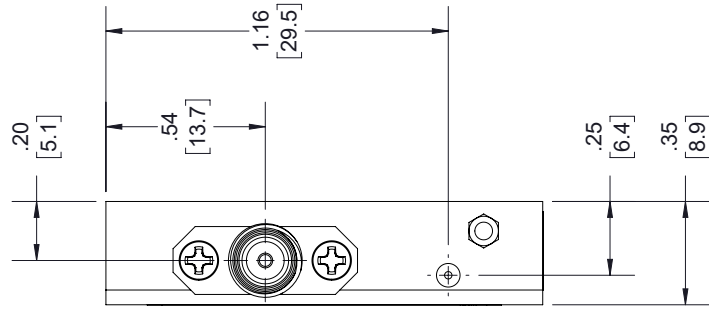
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PE15A3305 CAD Drawing

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NOTE:
1. WARRANTY VOID IF REMOVED.

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

PE15A3305

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