



43 dB Gain, 20 dBm IP3, 2 dB NF, 12 dBm P1dB,
26.5 GHz to 40 GHz, Low Noise Amplifier, 2.92mm

TECHNICAL DATA SHEET

PE15A3300

PE15A3300 is a Low Noise RF coaxial amplifier operating in the 26.5 GHz to 40 GHz frequency range. The amplifier offers 2 dB typical noise figure, 12 dBm typical P1dB and high 43 dB small signal gain with gain flatness of ± 2 dB typical. The low noise amplifier requires typically a 12V DC power supply. The connectorized 2.92mm module is unconditionally stable and includes built-in voltage regulation. This low noise amplifier requires only a single positive supply, is unconditionally stable and operates over the temperature range of -40°C and 75°C .

Features

- 26.5 GHz to 40 GHz Frequency Range
- P1dB: 12 dBm
- High Small Signal Gain: 43 dB typical
- Gain Flatness: ± 2 dB
- Gain Variance: ± 2 dB
- Noise Figure: 2 dB typ
- Reverse Isolation: 55 dB typical
- 50 Ohm Input and Output Matched
- -40 to 75°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in Voltage Regulator

Applications

- Laboratory Applications
- R&D Labs
- Radar Systems
- Test Instrumentation
- Military & Space
- Communication Systems
- Wireless Communication
- Microwave Radio Systems
- Low Noise Amplifier
- General Purpose Amplification
- General Purpose Wireless
- Wideband Gain Block
- IF Amplifier/RF Driver Amplifier
- RF Wideband Front Ends
- RF Pre-amplification
- Fixed and Land Mobile

Electrical Specifications (TA = $+25^{\circ}\text{C}$, DC Voltage = 12Vdc, DC Current = 110mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	26.5		40	GHz
Small Signal Gain	40	43	47	dB
Gain Flatness		± 2	± 2.5	dB
Gain Variance at OTR*		± 2		dB
Output at 1 dB Compression Point		+12		dBm
Output 3rd Intercept Point	+18	+20		dBm
Noise Figure		2	3	dB
Input VSWR		1.7:1	2.5:1	
Output VSWR		1.7:1	2.5:1	
Reverse Isolation		55		dB
Spurious			-70	dBc
Input Power (CW)			+10	dBm
Operating DC Voltage	10	12	15	Volts
Operating DC Current	90	110	140	mA
Operating Temperature Range	-40		+75	$^{\circ}\text{C}$

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [43 dB Gain, 20 dBm IP3, 2 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Amplifier, 2.92mm PE15A3300](#)



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*OTR= Base Plate Operating Temperature Range

Absolute Maximum Rating

Parameter	Rating	Units
DC Voltage	+18	V
RF Input Power	+10	dBm
Storage Temperature	-55 - 125	°C
Operating Temperature	-40 - 85	°C



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

Mechanical Specifications

Size

Length	1.5 in [38.1 mm]
Width	1 in [25.4 mm]
Height	0.4 in [10.16 mm]
Weight	0.067 lbs [30.39 g]
Input Connector	2.92mm Female
Output Connector	2.92mm Female

Environmental Specifications

Temperature

Operating Range	-40 to +75 deg C
Storage Range	-55 to +125 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at +25 °C, sea level

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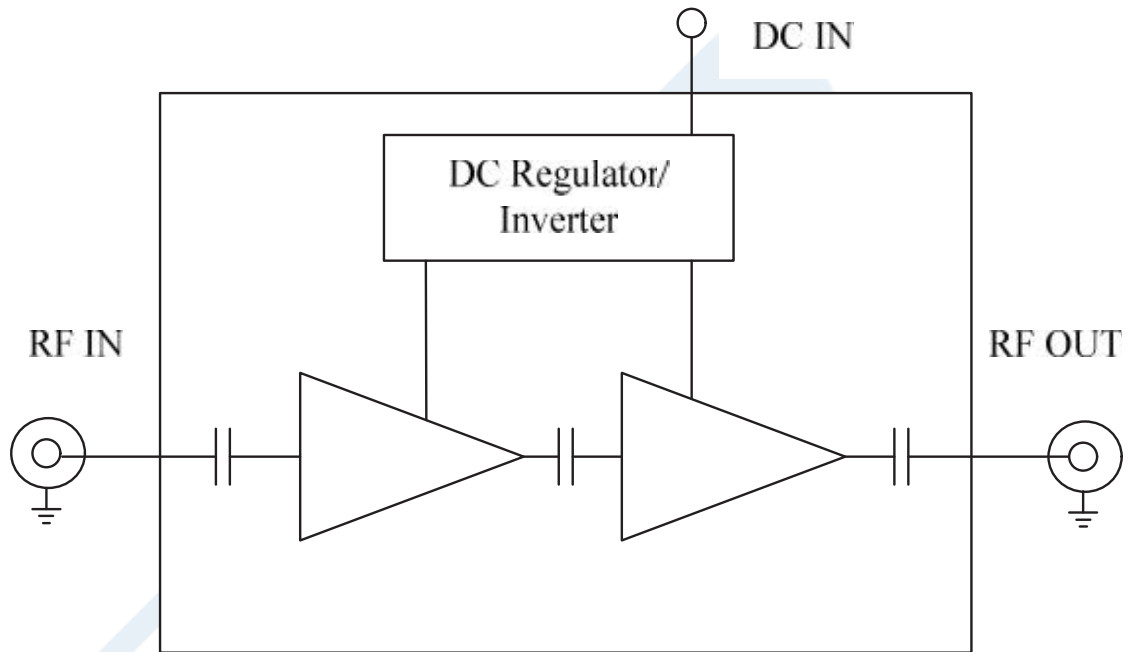


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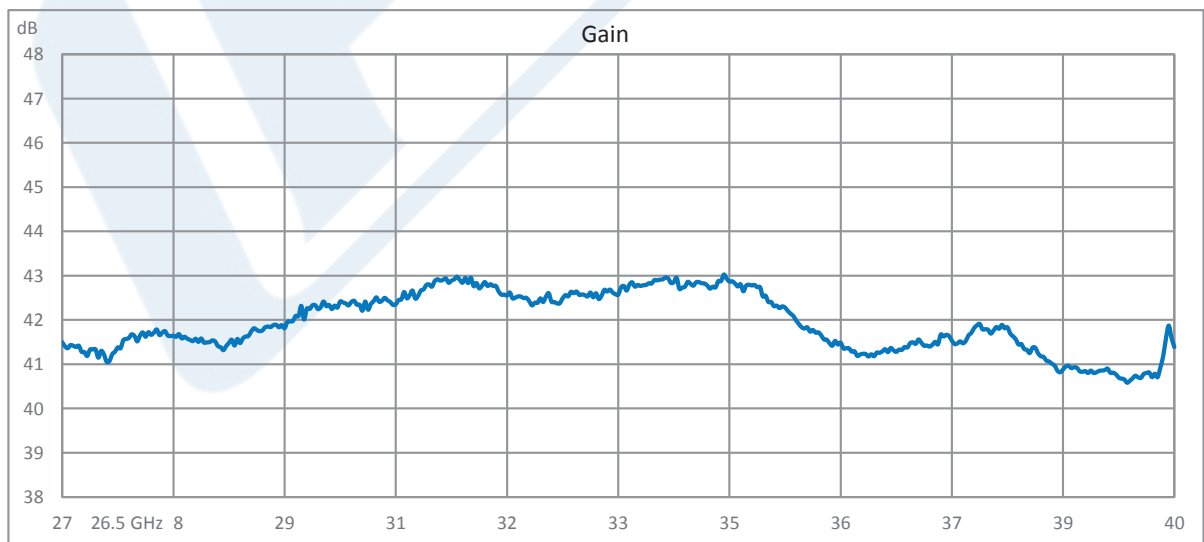
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Functional Block Diagram



Typical Performance Data



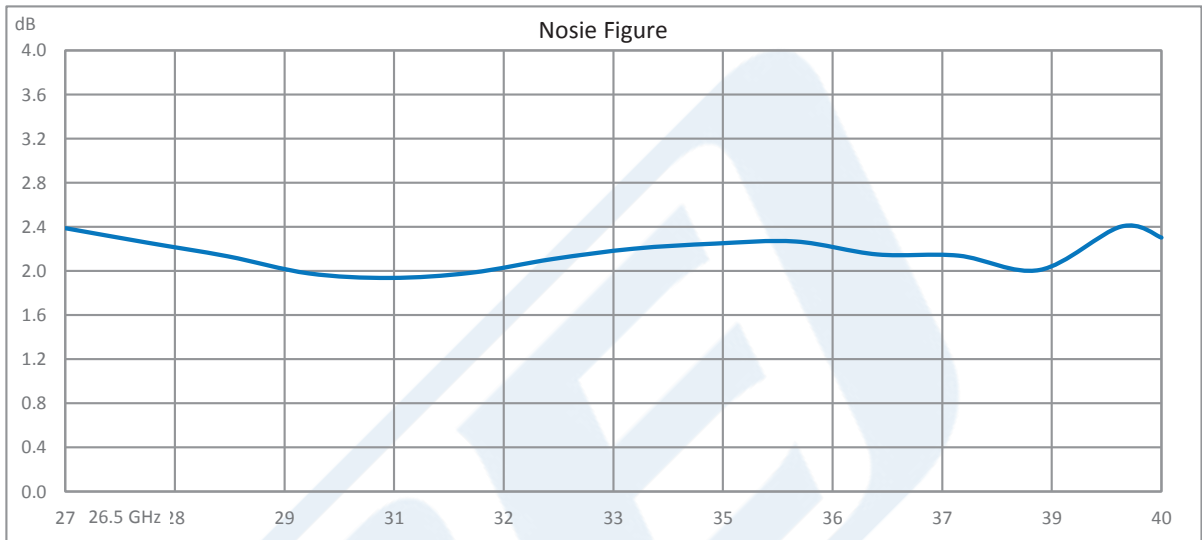
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43 dB Gain, 20 dBm IP3, 2 dB NF, 12 dBm P1dB, 26.5 GHz to 40 GHz, Low Noise Amplifier, 2.92mm from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

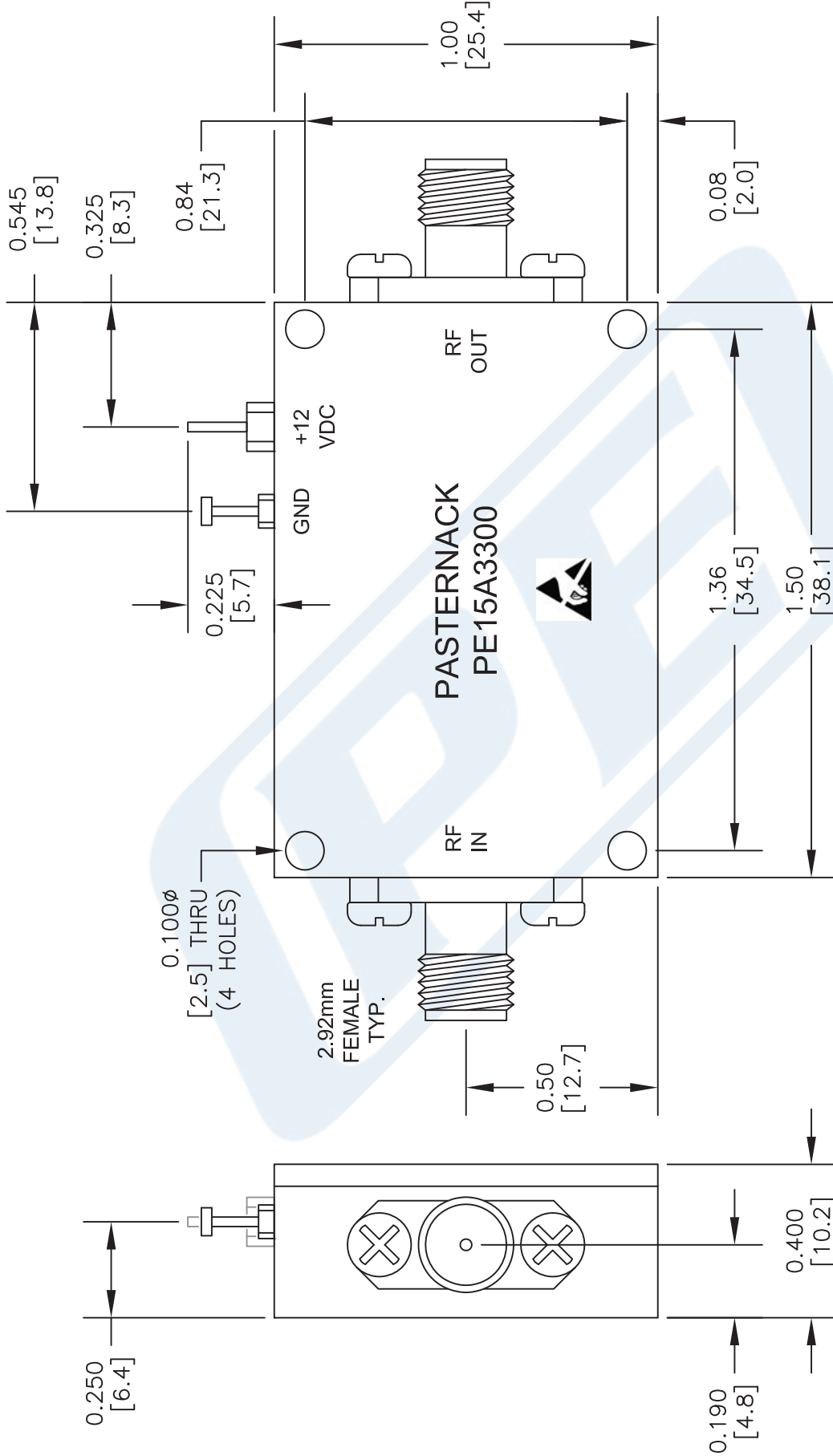
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URL: <https://www.pasternack.com/43-db-gain-2-db-40-ghz-low-noise-amplifier-2.92mm-pe15a3300-p.aspx>

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PE15A3300 CAD Drawing

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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].

DWG TITLE

PE15A3300

FSCM NO. 53919

CAD FILE 071816

SCALE N/A

SIZE A

2233

PE PASTERNAK
THE ENGINEER'S RF SOURCE

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