



28 dBm Psat, 2 GHz to 24 GHz, Medium Power Broadband  
Amplifier, 12 dB Gain, 35 dBm IP3, 4 dB NF, 2.92mm

TECHNICAL DATA SHEET

PE15A3009

The PE15A3009 is a broadband low noise high power amplifier that operates in the 2.0 GHz to 24 GHz Frequency Band. The amplifier is unconditionally stable and operates from a +12 VDC power supply. The coaxial connectorized amplifier operates in the -40 Deg C to +85 Deg C temperature range.

**Features**

- 2.0 GHz to 24 GHz Frequency Range
- Gain 12 dB typ
- Gain Flatness +/-0.75 dB typ
- P1dB 26 dBm typ
- Psat 28 dBm typ
- OIP3 35 dBm typ
- -40 to +85 Deg C operating range

**Applications**

- Test & Measurement
- Communications Links
- Driver Amplifier

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	2		24	GHz
Gain	10	12	14	dB
Gain Flatness		±0.75	±1.25	dB
Gain Variation over OTR*		±1		dB
Output at 1 dB Compression Point	+25	+26		dBm
Saturation Output Power	+27	+28		dBm
Output 3 <sup>rd</sup> Intercept Point	+32	+35		dBm
Reverse Isolation	20	30		dB
Spurious		-60		dBc
Noise Figure		4		dB
Noise Figure at 2 to 5 GHz		6.5	8	dB
Noise Figure at 5 to 20 GHz		3	4	dB
Noise Figure at 20 to 24 GHz		4	5	dB
Input VSWR		1.7:1	2.2:1	
Output VSWR		1.7:1	2.2:1	
Operating DC Voltage 1	10	12	15	Volts
Operating DC Current	200	260	320	mA
Operating Temperature Range (OTR)	-40		+85	°C

\*OTR= Base Plate Operating Temperature Range

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [28 dBm Psat, 2 GHz to 24 GHz, Medium Power Broadband Amplifier, 12 dB Gain, 35 dBm IP3, 4 dB NF, 2.92mm PE15A3009](#)



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### Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+18	Volts
RF input Power	+23	dBm
Operating Temperature (base-plate)	-55 to +125	°C
Storage Temperature	-40 to +85	°C



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

### Mechanical Specifications

#### Size

Length	1.2 in [30.48 mm]
Width	1 in [25.4 mm]
Height	0.4 in [10.16 mm]
Weight	0.0597 lbs [27.08 g]
Input Connector	2.92mm Female
Output Connector	2.92mm Female

### Environmental Specifications

#### Temperature

Operating Range	-40 to +85 deg C
Storage Range	-45 to +125 deg C

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

### Plotted and Other Data

Notes:

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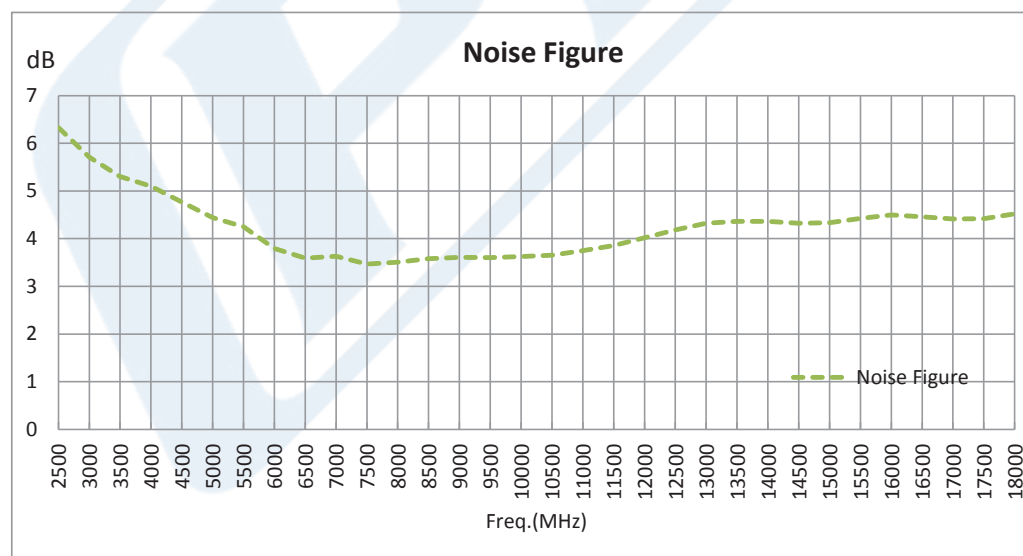
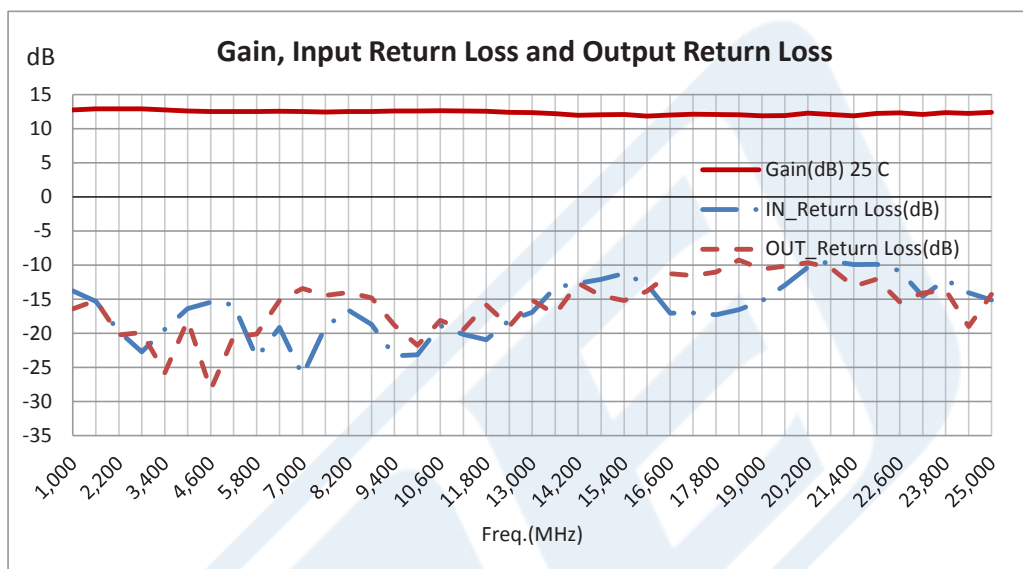


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### Typical Performance Data



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28 dBm Psat, 2 GHz to 24 GHz, Medium Power Broadband Amplifier, 12 dB Gain, 35 dBm IP3, 4 dB NF, 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.

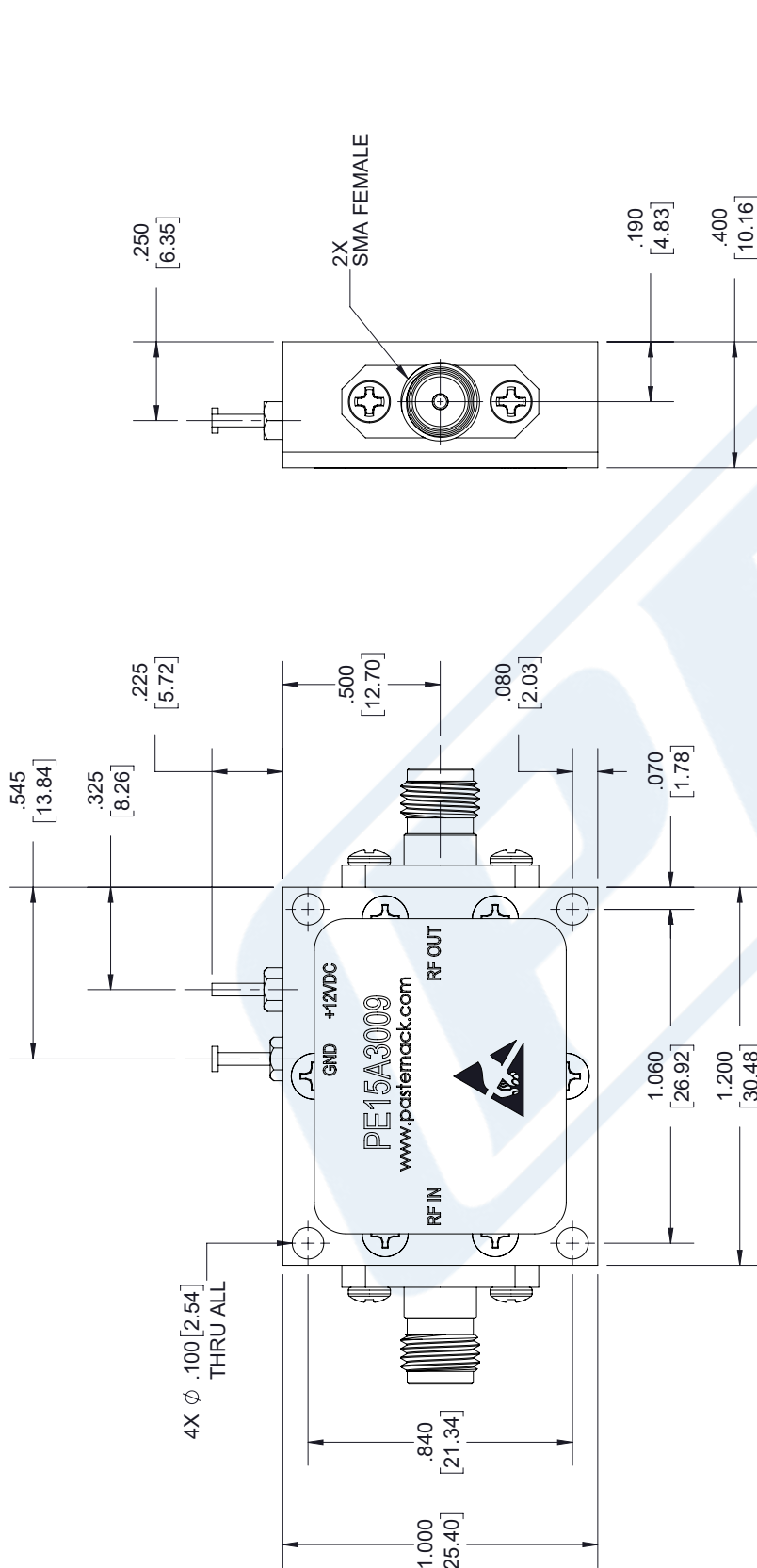
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [28 dBm Psat, 2 GHz to 24 GHz, Medium Power Broadband Amplifier, 12 dB Gain, 35 dBm IP3, 4 dB NF, 2.92mm PE15A3009](https://www.pasternack.com/24-ghz-medium-power-broadband-amplifier-12-db-gain-4-db-sma-pe15a3009-p.aspx)

URL: <https://www.pasternack.com/24-ghz-medium-power-broadband-amplifier-12-db-gain-4-db-sma-pe15a3009-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.

# PE15A3009 CAD Drawing

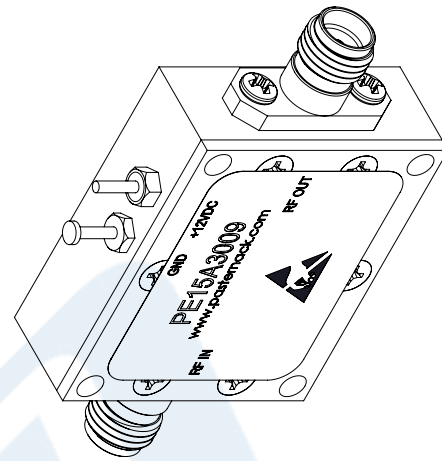
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## STANDARD TOLERANCES

.X ±0.2  
.XX ±0.01  
.XXX ±0.005

\*STANDARD TOLERANCES APPLY  
ONLY TO DIMENSIONS IN INCHES



DWG TITLE

PE15A3009

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].

**PE PASTERNAK®**  
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SCALE N/A

SIZE A

7361