

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



## PE15A3009

### 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

### Description

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.

### Electrical Specifications (TA= 25°C, VDC = 12 Vdc)

Description	Min	Typ	Max	Unit
Frequency Range	2		24	GHz
Gain	10	12	14	dB
Gain Flatness		±0.75	±1.25	dB
Gain Variation over OTR*		±1		dB
P1dB	+25	+26		dBm
Saturation Output Power	+27	+28		dBm
IP3	+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	10	12	15	Vdc
Operating DC Current	200	260	320	mA
Operating Temperature Range (OTR)	-40		+85	°C

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### Absolute Maximum Rating

Parameter	Rating	Unit
Source Voltage	18.00	Volts
RF Input Power	23	dBm
Operating Temperature (base-plate)	-40 to +85	°C
Storage Temperature	-55 to +125	°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	0.059 lbs [26.76 g]
Input Connector	2.92mm Female
Output Connector	2.92mm Female

### Environmental Specifications

#### Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +125 deg C

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

CE Certification

### Plotted and Other Data

Notes:

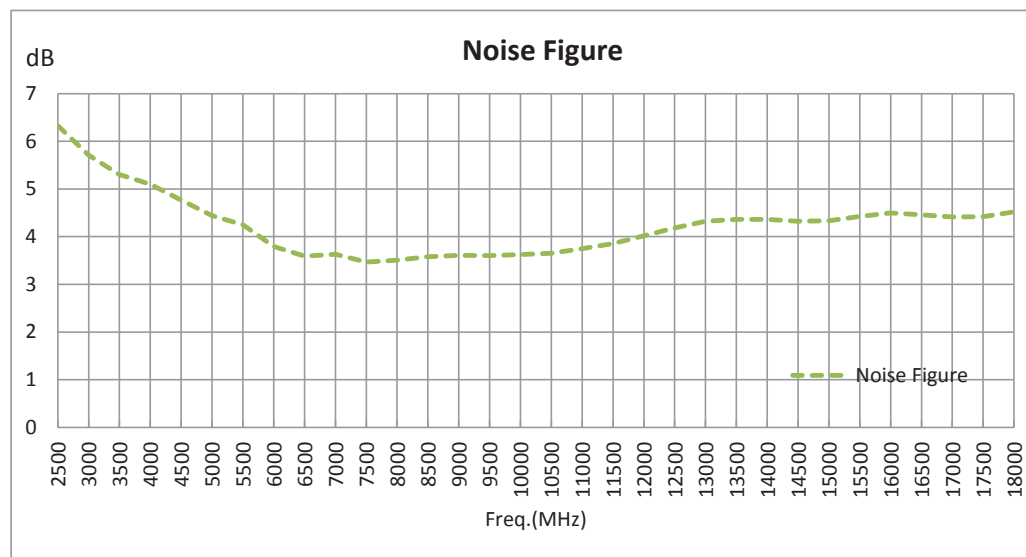
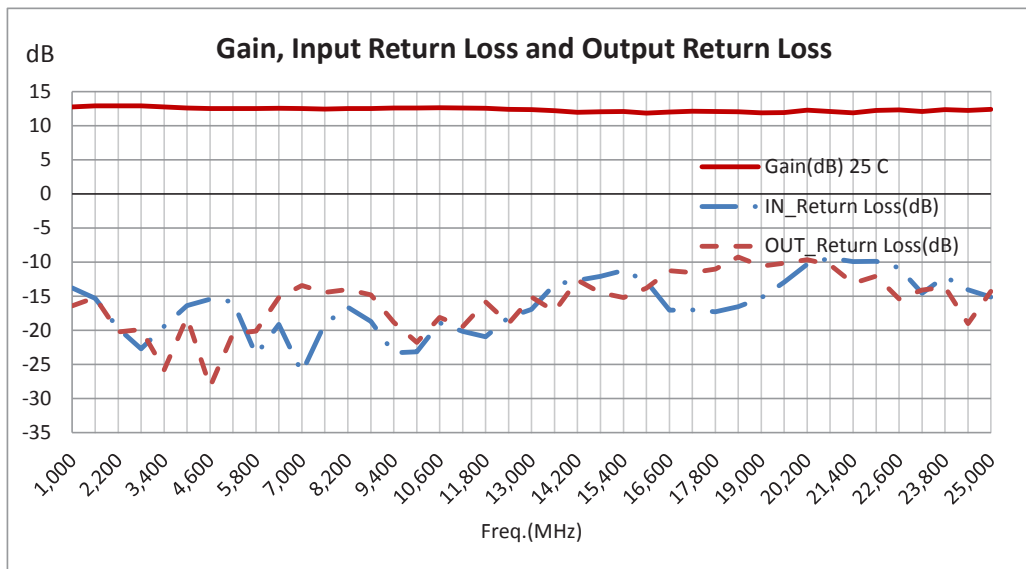
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**Functional Block Diagram**

Typical Performance Data Parameter, Typ Performance



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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)

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# PE15A3009 CAD Drawing

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