

3 dB NF, 14.5 dBm P1dB, 10 MHz to 6 GHz, Low Noise  
Broadband Amplifier, 34 dB Gain, 25.5 dBm IP3, SMA



## PE15A3269

### Features

- 10 to 6000 MHz Frequency Range
- Small Signal Gain: 34 dB min
- Gain Flatness:  $\pm 1.0$  dB typ
- Noise Figure: 3.0 dB typ
- 50 Ohm Input and Output Matched
- -40 to +85°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in DC Voltage Regulator

### 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

### Description

The PE15A3269 is a broadband coaxial low noise amplifier, operating in the 10 to 6000 MHz frequency range. The amplifier offers 34 dB small signal gain min, with the gain flatness of  $\pm 1.0$  dB typical and a typical noise figure of 3.0 dB. This low noise amplifier requires only a single positive DC supply of +12 VDC typical, is unconditionally stable, operates over the temperature range of -40°C to +85°C.

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

Description	Min	Typ	Max	Unit
Frequency Range	0.01		6	GHz
Gain	30	34	37	dB
Gain Flatness		$\pm 1$	$\pm 1.25$	dB
Gain Variation over OTR*		$\pm 1$		dB
P1dB	+12.5	+14.5		dBm
IP3	+22	+25.5		dBm
Reverse Isolation	40	45		dB
Spurious			-60	dBc
Noise Figure (50 MHz to 6 GHz)		3	4	dB
Input VSWR		1.5:1	2:1	
Output VSWR		1.5:1	2:1	
Operating DC Voltage	9.5	12	15	Vdc
Operating DC Current	100	130	150	mA
Operating Temperature Range (OTR)	-40		+85	°C

3 dB NF, 14.5 dBm P1dB, 10 MHz to 6 GHz, Low Noise  
Broadband Amplifier, 34 dB Gain, 25.5 dBm IP3, SMA

## PE15A3269



### Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+10	dBm
DC Voltage at RF I/O	±25V	Volts
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	1.7 in [43.18 mm]
Width	0.95 in [24.13 mm]
Height	0.375 in [9.53 mm]
Weight	0.0615 lbs [27.9 g]
Input Connector	SMA Female
Output Connector	SMA 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

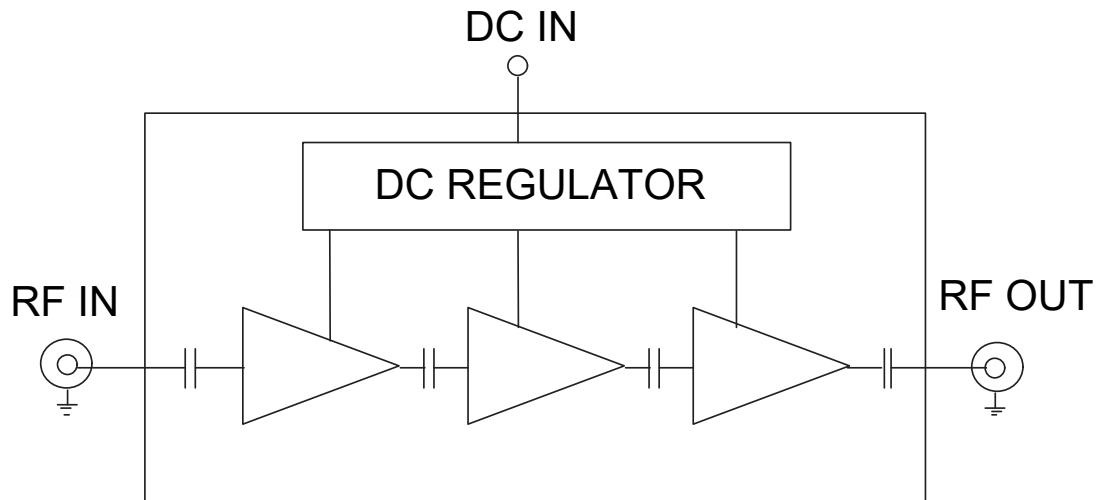
Notes:

3 dB NF, 14.5 dBm P1dB, 10 MHz to 6 GHz, Low Noise  
Broadband Amplifier, 34 dB Gain, 25.5 dBm IP3, SMA



## PE15A3269

### Functional Block Diagram

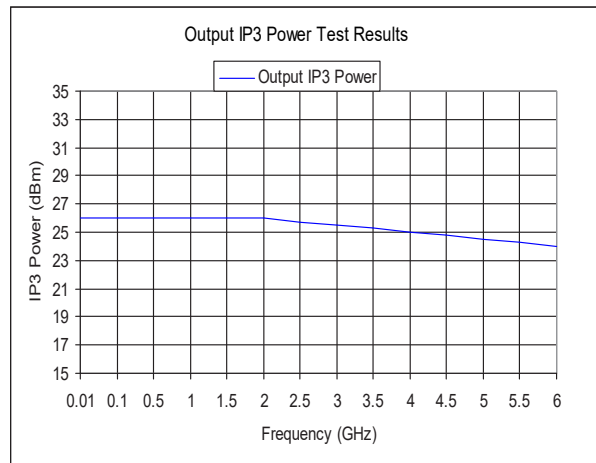
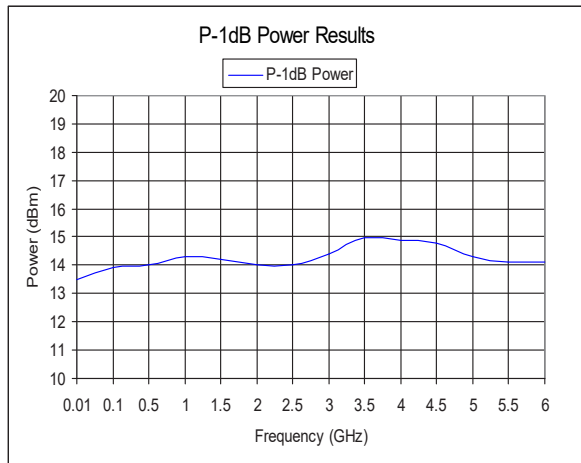
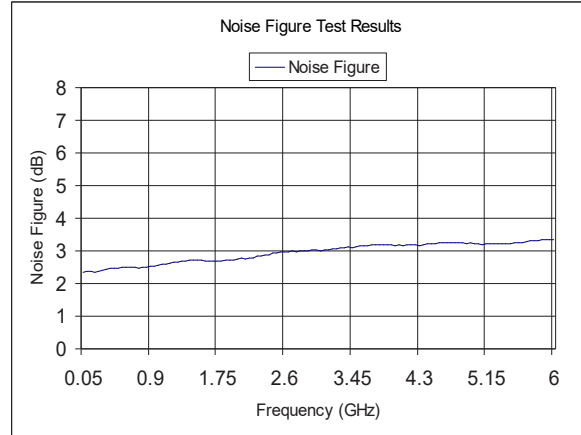
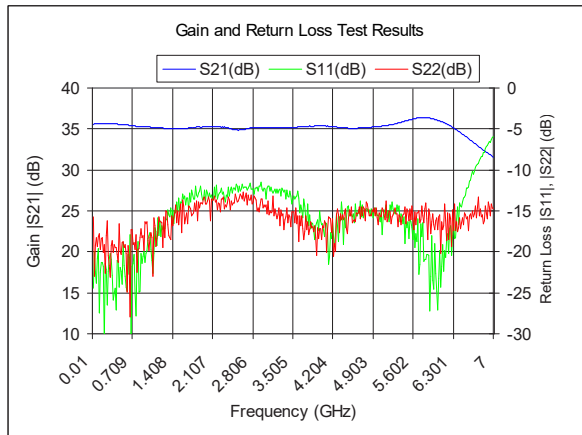


3 dB NF, 14.5 dBm P1dB, 10 MHz to 6 GHz, Low Noise  
Broadband Amplifier, 34 dB Gain, 25.5 dBm IP3, SMA



## PE15A3269

### Typical Performance Data Parameter, Typ Performance



3 dB NF, 14.5 dBm P1dB, 10 MHz to 6 GHz, Low Noise Broadband Amplifier, 34 dB Gain, 25.5 dBm IP3, 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: **3 dB NF, 14.5 dBm P1dB, 10 MHz to 6 GHz, Low Noise Broadband Amplifier, 34 dB Gain, 25.5 dBm IP3, SMA PE15A3269**

URL: <https://www.pasternack.com/25.5-dbm-ip3-3-db-6-ghz-low-noise-broadband-amplifier-34-db-gain-sma-pe15a3269-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE15A3269 CAD Drawing

3 dB NF, 14.5 dBm P1dB, 10 MHz to 6 GHz, Low Noise Broadband Amplifier, 34 dB Gain, 25.5 dBm IP3, SMA

