



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

TECHNICAL DATA SHEET

PE15A3269

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 ± 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 $+85^{\circ}\text{C}$.

Features

- 10 to 6000 MHz Frequency Range
- Small Signal Gain: 34 dB min
- Gain Flatness: ± 1.0 dB typ
- Noise Figure: 3.0 dB typ
- 50 Ohm Input and Output Matched
- -40 to $+85^{\circ}\text{C}$ 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

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.01		6	GHz
Gain	30	34	37	dB
Gain Flatness		± 1	± 1.25	dB
Gain Variation over OTR*		± 1		dB
Output at 1 dB Compression Point	+12.5	+14.5		dBm
Output 3 rd Intercept Point	+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 1	9.5	12	15	Volts
Operating DC Current	100	130	150	mA
Operating Temperature Range (OTR)	-40		+85	$^{\circ}\text{C}$

*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: [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](#)



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

TECHNICAL DATA SHEET

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	0.061 lbs [27.67 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)

Plotted and Other Data

Notes:

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](#)

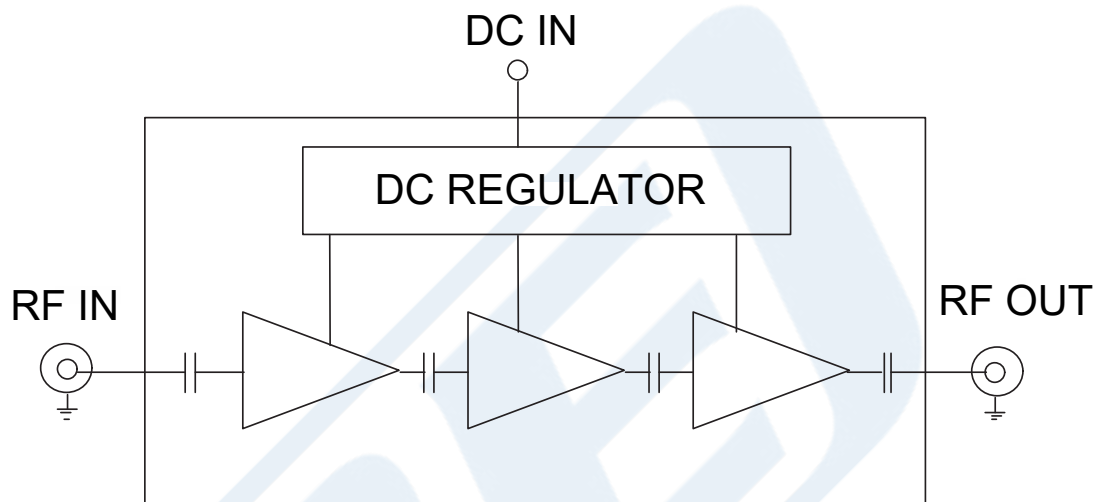


3 dB NF, 14.5 dBm P1dB, 10 MHz to 6 GHz, Low Noise
Broadband Amplifier, 34 dB Gain, 25.5 dBm IP3, SMA

TECHNICAL DATA SHEET

PE15A3269

Functional Block Diagram



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](#)

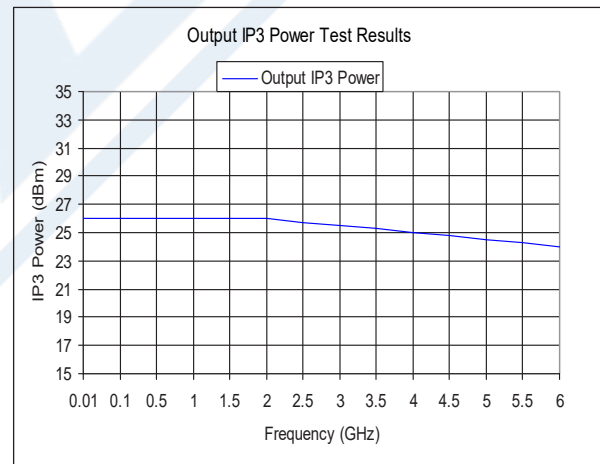
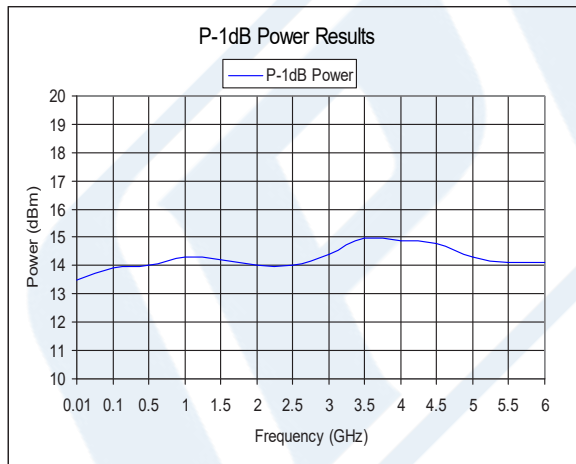
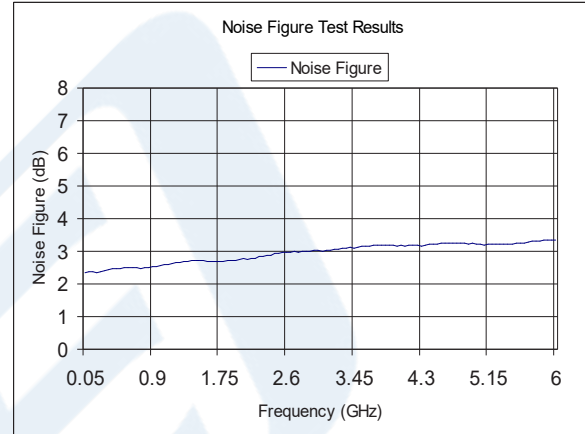
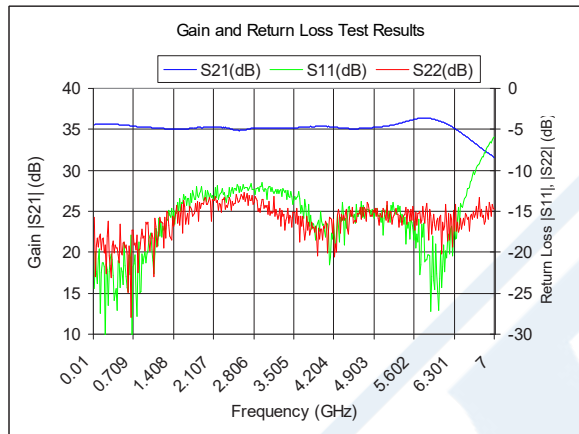


3 dB NF, 14.5 dBm P1dB, 10 MHz to 6 GHz, Low Noise
Broadband Amplifier, 34 dB Gain, 25.5 dBm IP3, SMA

TECHNICAL DATA SHEET

PE15A3269

Typical Performance Data



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](#)



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

TECHNICAL DATA SHEET

PE15A3269

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.

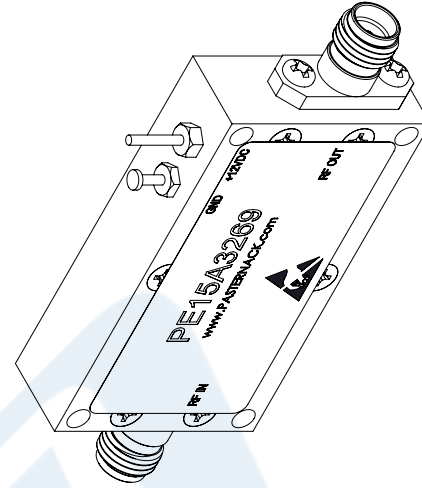
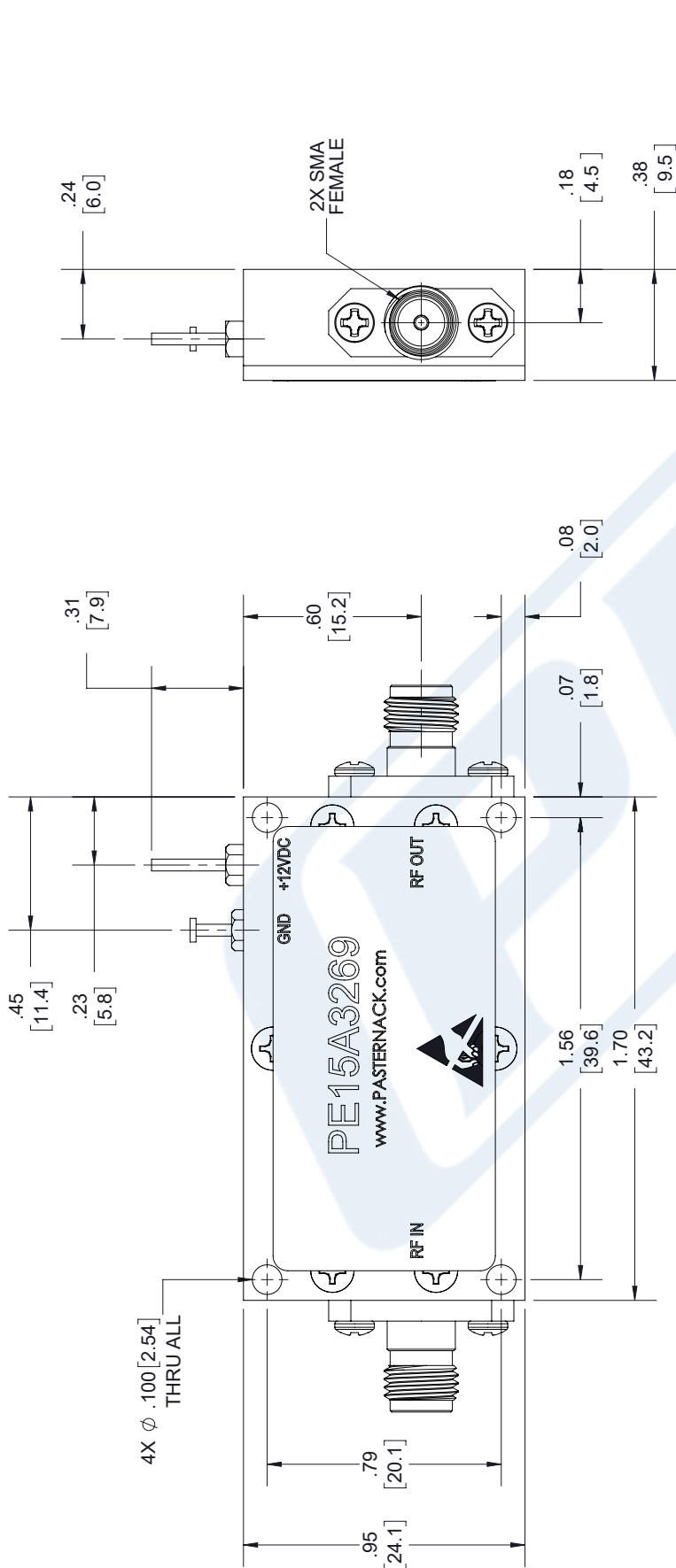
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [3 dB NF, 14.5 dBm P1dB, 10 MHz to 6 GHz, Low Noise Broadband Amplifier, 34 dB Gain, 25.5 dBm IP3, SMA PE15A3269](https://www.pasternack.com/3-db-6-ghz-low-noise-broadband-amplifier-34-db-gain-sma-pe15a3269-p.aspx)

URL: <https://www.pasternack.com/3-db-6-ghz-low-noise-broadband-amplifier-34-db-gain-sma-pe15a3269-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.

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



STANDARD TOLERANCES

.X ±0.2
.XX ±0.01
.XXX ±0.005

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES



Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623

Phone: (949) 261-1920 | Fax: (949) 261-7451

Website: www.pasternack.com | E-Mail: sales@pasternack.com

DWG TITLE

PE15A3269

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 04/04/18

SCALE N/A

SIZE A

7361