The PE15A3308 is a broadband coaxial power amplifier, operating in the 0.01 MHz to 3 GHz frequency range. Impressive broadband typical performance includes 4 dB noise figure, 16 dB small signal gain, +12 dBm P1dB, and an output 3rd order intercept point of +26 dBm. This exceptional technical performance is achieved through the use of hybrid MIC design and advanced InGap GaAs HBT devices. The low noise amplifier requires a +15V DC power supply, and operates over a temperature range of -40°C to +85°C. The rugged and compact package supports SMA Female connectors and RFI and Ground pins. And for highly reliable operation, the model is guaranteed to meet MIL-STD-202 environmental test conditions for Humidity, Shock, Vibration, and Altitude.

**Features**

- 0.01 MHz to 3 GHz Frequency Range
- P1dB: +12 dBm
- Small Signal Gain: 16 dB
- Gain Flatness: ±1.5 dB
- 50 Ohm Input and Output Matched
- Output IP3: +26 dBm
- Advanced InGap GaAs HBT Design
- -40 to +85°C Operating Temperature
- +15V / 47mA DC Positive Supply
- SMA Female Connectors
- Designed to meet MIL-STD-202 Test Conditions

**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 = 15 Vdc)

<table>
<thead>
<tr>
<th>Description</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
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<tbody>
<tr>
<td>Frequency Range</td>
<td>0</td>
<td>11.5</td>
<td>16</td>
<td>dB</td>
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<tr>
<td>Gain</td>
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<td>+12</td>
<td>+26</td>
<td>dBm</td>
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<tr>
<td>Gain Flatness</td>
<td>±1.5</td>
<td>±2</td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Output at 1 dB Compression Point</td>
<td>-17</td>
<td>-20</td>
<td></td>
<td>dB</td>
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<tr>
<td>Reverse Isolation</td>
<td>4</td>
<td>5</td>
<td></td>
<td>dB</td>
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<tr>
<td>Noise Figure</td>
<td>1.2:1</td>
<td>1.5:1</td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Input VSWR</td>
<td>1.5:1</td>
<td>1.8:1</td>
<td></td>
<td></td>
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<tr>
<td>Output VSWR</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>Volts</td>
</tr>
<tr>
<td>Operating DC Voltage 1</td>
<td>47</td>
<td>60</td>
<td></td>
<td>mA</td>
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<tr>
<td>Operating Temperature Range (OTR)</td>
<td>0</td>
<td>+50</td>
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<td>°C</td>
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</table>

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications:

4 dB NF, 12 dBm P1dB, 0.01 MHz to 3 GHz, Low Noise Broadband Amplifier, 16 dB Gain, SMA PE15A3308
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TECHNICAL DATA SHEET

PE15A3308

Absolute Maximum Rating

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Rating</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage</td>
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<td>V</td>
</tr>
<tr>
<td>RF Input Power</td>
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<td>dBm</td>
</tr>
<tr>
<td>Operating Temp.</td>
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</tr>
<tr>
<td>Storage Temp.</td>
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<td>°C</td>
</tr>
</tbody>
</table>

Mechanical Specifications

Input Connector: SMA Female
Output Connector: SMA Female

Environmental Specifications

Temperature
- Operating Range: 0 to +50 deg C
- Storage Range: -40 to +100 deg C

Humidity: MIL-STD-202F, Method 103B, Condition B
Vibration: MIL-STD-202F, Method 204D, Condition B

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

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4 dB NF, 12 dBm P1dB, 0.01 MHz to 3 GHz, Low Noise Broadband Amplifier, 16 dB Gain, SMA

Typical Performance Data

**VSWR**

- Input
- Output

**Gain**

- 4 dB NF
- 12 dBm P1dB
- 0.01 MHz to 3 GHz
- Low Noise Broadband Amplifier
- 16 dB Gain
- SMA PE15A3308

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<td>PE15A3308</td>
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4 dB NF, 12 dBm P1dB, 0.01 MHz to 3 GHz, Low Noise Broadband Amplifier, 16 dB Gain, 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: 4 dB NF, 12 dBm P1dB, 0.01 MHz to 3 GHz, Low Noise Broadband Amplifier, 16 dB Gain, SMA PE15A3308

URL:  https://www.pasternack.com/26-dbm-ip3-4-db-3-ghz-low-noise-broadband-amplifier-16-db-gain-sma-pe15a3308-p.aspx

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