The PE15A3014 is a 24 dBm power amplifier designed for operation in the 0.5 GHz to 2 GHz frequency range. The amplifier provides an IP3 of 34 dBm Typ and 27 dB of Gain Min over the operating frequency range. High efficiency operation is achieved by using hybrid MIC designs and advanced GaAs PHEMT devices. The amplifier requires only +12 VDC power supply.

**Features**
- 0.5 GHz to 2.0 GHz Frequency Range
- P1dB 24 dBm min.
- IP3 34 dBm typ.
- Gain 27 dB min.
- Gain Flatness +/-0.6 dB

**Applications**
- Medium Power Amplifier
- Driver Amp
- Military Communications
- Radar Driver Stage
- Test & Measurement

**Electrical Specifications**

<table>
<thead>
<tr>
<th>Description</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>0.5</td>
<td>2</td>
<td>2</td>
<td>GHz</td>
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<tr>
<td>Gain</td>
<td>27</td>
<td>30</td>
<td></td>
<td>dB</td>
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<tr>
<td>Gain Flatness</td>
<td>±0.6</td>
<td></td>
<td></td>
<td>dB</td>
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<tr>
<td>Output at 1 dB Compression Point</td>
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<td>dBm</td>
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<tr>
<td>Output 3rd Intercept Point</td>
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<td>dBm</td>
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<td>Noise Figure</td>
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<td>2:1</td>
<td>dB</td>
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<tr>
<td>Input VSWR</td>
<td></td>
<td>2:1</td>
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<tr>
<td>Output VSWR</td>
<td></td>
<td>2:1</td>
<td></td>
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<tr>
<td>Operating DC Voltage</td>
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<td>12</td>
<td>15</td>
<td>Volts</td>
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<tr>
<td>Operating DC Current</td>
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<td>240</td>
<td>mA</td>
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<tr>
<td>Operating Temperature Range (OTR)</td>
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<td></td>
<td>+70</td>
<td>°C</td>
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</table>

**Environmental Specifications**

- **Temperature**
  - Operating Range: -30 to +70 deg C

- **Shock**: RTCA, DO-160C
- **Vibration**: RTCA, DO-160C
- **Temperature Cycle**: MIL-STD-883, METHOD 1010

**Compliance Certifications**

- Not RoHS Compliant

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 24 dBm P1dB, 500 MHz to 2 GHz, Medium Power Broadband Amplifier, 30 dB Gain, 34 dBm IP3, 2.7 dB NF, SMA PE15A3014
24 dBm P1dB, 500 MHz to 2 GHz, Medium Power Broadband Amplifier, 30 dB Gain, 34 dBm IP3, 2.7 dB NF, SMA

**Plotted and Other Data**

**Notes:**
- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 24 dBm P1dB, 500 MHz to 2 GHz, Medium Power Broadband Amplifier, 30 dB Gain, 34 dBm IP3, 2.7 dB NF, SMA PE15A3014
Typical Performance Data

Gain, Input Return Loss and Output Return Loss

Gain (dB) vs Temperature

Gain (dB) vs Frequency

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TECHNICAL DATA SHEET

PE15A3014

24 dBm P1dB, 500 MHz to 2 GHz, Medium Power Broadband Amplifier, 30 dB Gain, 34 dBm IP3, 2.7 dB NF, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

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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.