The PE1528 is a low noise RF coaxial amplifier operating in the 10 MHz to 3 GHz frequency range. The amplifier offers noise figure of 3.0 dB typical, 11 dBm typical P1dB, and 15 dB small signal gain. This exceptional technical performance is achieved through the use of a hybrid MIC design and advanced SiGe HBT technology. The low noise amplifier requires an operating voltage between 7-18 VDC. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation and bias sequencing.

**Features**
- 10 MHz to 3 GHz frequency range
- P1db: 11 dBm Typ
- Small Signal Gain: 15 dB Typ
- Noise Figure: 3.0 dB Typ
- SiGe HBT Technology
- 50 Ohm Input and Output Matched
- Unconditionally Stable
- Single DC Positive Supply With EMI Filter
- Built-in voltage regulator
- Compact Aluminum Case

**Applications**
- Laboratory Applications
- R&D Labs
- RADAR Systems
- Telecom Infrastructure
- Test Instrumentation
- Communication Systems
- UMTS
- Wireless Communication
- Microwave Radio Systems
- Cellular Base Station, Repeaters
- Low Noise Amplifer
- General Purpose Amplification
- General Purpose Wireless
- GSM
- Wideband Gain Block
- IF Amplifier/RF Driver Amp
- RF Wideband Front Ends
- RF Pre Amplification
- Satellite

**Electrical Specifications** (TA = +25°C, DC Voltage = 18Volts, DC Current = 40mA)

<table>
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<tr>
<th>Description</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
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<td>Frequency Range</td>
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<td>Small Signal Gain</td>
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<td>dB</td>
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<td>Gain Flatness</td>
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<td>Output 3rd Intercept Point</td>
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<td>Operating DC Voltage</td>
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<td>Volts</td>
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<td>Input Return Loss</td>
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<td>14</td>
<td>dB</td>
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TECHNICAL DATA SHEET

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<th>Output Return Loss</th>
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<th>16</th>
<th>dB</th>
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<td>Output at 1 dB Compression Point</td>
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<td>10</td>
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<td>Output 3rd Intercept Point</td>
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<td>12</td>
<td>10.5</td>
<td>dBm</td>
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Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:
- Values at +25 °C, sea level

11 dBm P1dB, 10 MHz to 3 GHz, Gain Block Amplifier, 15 dB Gain, 12 dBm IP3, 3 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.

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 11 dBm P1dB, 10 MHz to 3 GHz, Gain Block Amplifier, 15 dB Gain, 12 dBm IP3, 3 dB NF, SMA PE1528


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PE1528 CAD Drawing
11 dBm P1dB, 10 MHz to 3 GHz, Gain Block Amplifier,
15 dB Gain, 12 dBm IP3, 3 dB NF, SMA

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALI DIMENSIONS ARE NOMINAL.
2. DIMENSIONS ARE IN MILLIMETERS.
3. DRAWS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.