PE15A3256 is a broadband high gain GaAs PHEMT MMIC-based coaxial low noise amplifier, operating in the 0.1 to 18 GHz frequency range. The amplifier offers 16 dBm of P1dB and 14 dB small signal gain, with the excellent gain flatness of ±1.5 dB, along with 28 dBm of IP3 performance. This low noise amplifier requires only a single positive DC supply, unconditionally stable, operates over the temperature range of -40°C to 85°C, and characterized by a light weight (25 g) and small size (1.2”x1.0”x0.4”).

Features
- 0.1 to 18 GHz Frequency Range
- P1dB: 16 dBm
- Small Signal Gain: 28 dB
- Gain Flatness: ±2.5 dB
- Gain Variation Over the Temperature Range: ±1.5 dB
- Output Psat: 18 dB
- IP3: 28 dBm
- Noise Figure: 3dB typ

Applications
- Laboratory Applications
- R&D Labs
- Radar Systems
- Electronic Warfare
- Telecom Infrastructure
- 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

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<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>0.1</td>
<td>28</td>
<td>18</td>
<td>GHz</td>
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<tr>
<td>Gain</td>
<td>25</td>
<td>28</td>
<td>31</td>
<td>dB</td>
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<tr>
<td>Gain Flatness</td>
<td>±2.5</td>
<td>±3</td>
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<td>dB</td>
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<td>Gain Variance at OTR*</td>
<td>±1.5</td>
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<td>Output at 1 dB Compression Point</td>
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<td>+16</td>
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<td>dBm</td>
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<td>Saturation Output Power</td>
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<td>dBm</td>
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<td>Output 3rd Intercept Point</td>
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<td>dBm</td>
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<tr>
<td>Reverse Isolation</td>
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<td>dB</td>
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<td>Spurious</td>
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<td>dB</td>
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<td>3.5</td>
<td></td>
<td>dB</td>
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<tr>
<td>Noise Figure at 16.5 to 18 GHz</td>
<td>3.5</td>
<td>4</td>
<td></td>
<td>dB</td>
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<tr>
<td>Input VSWR</td>
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<td>2:1</td>
<td></td>
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<tr>
<td>Output VSWR</td>
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<td>2:1</td>
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<td>Operating DC Voltage</td>
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<td>12</td>
<td>15</td>
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<tr>
<td>Operating DC Current</td>
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<td>Operating Temperature Range (OTR)</td>
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<td>+85</td>
<td>°C</td>
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Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 18 dBm, 100 MHz to 18 GHz, Low Noise Broadband Amplifier, 28 dB Gain, 28 dBm IP3, SMA PE15A3256
TECHNICAL DATA SHEET

PE15A3256

18 dBm, 100 MHz to 18 GHz, Low Noise Broadband Amplifier, 28 dB Gain, 28 dBm IP3, SMA

*OTR= Base Plate Operating Temperature Range

Absolute Maximum Rating

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<th>Parameter</th>
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<th>Units</th>
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<td>Source Voltage</td>
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<tr>
<td>RF input Power</td>
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<td>dBm</td>
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<tr>
<td>Operating Temperature (base-plate)</td>
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<tr>
<td>Storage Temperature</td>
<td>-40 to +85</td>
<td>°C</td>
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</tbody>
</table>

ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

Compliance Certifications (visit www.Pasternack.com for current document)

RoHS Compliant

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.

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18 dBm, 100 MHz to 18 GHz, Low Noise Broadband Amplifier, 28 dB Gain, 28 dBm IP3, SMA

TECHNICAL DATA SHEET
PE15A3256

Power Data

Gain, Input Return Loss and Output Return Loss

Noise Figure

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18 dBm, 100 MHz to 18 GHz, Low Noise Broadband Amplifier, 28 dB Gain, 28 dBm IP3, SMA

TECHNICAL DATA SHEET

PE15A3256

18 dBm, 100 MHz to 18 GHz, Low Noise Broadband Amplifier, 28 dB Gain, 28 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% 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: 18 dBm, 100 MHz to 18 GHz, Low Noise Broadband Amplifier, 28 dB Gain, 28 dBm IP3, SMA PE15A3256


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.
18 dBm, 100 MHz to 18 GHz, Low Noise Broadband Amplifier, 28 dB Gain, 28 dBm IP3, SMA

PASTERNACK PE15A3256

SMA FEMALE

SMA FEMALE

NOTE:
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].