Product Features

- 28-30 GHz operation
- +34.6 dBm Psat (3W)
- +25 dB linear gain
- 28 lead 5x5 mm QFN package

Block Diagram

Applications

SATCOM, AESA, and Point-to-Point Radios

General Description

The AWP1102 is a 4-stage high power amplifier that provides a typical saturated output power of +34.6 dBm across the frequency band and a typical gain of 25 dB. The HPA is fabricated on a 0.15 um PHEMT process and packaged in a 5x5 mm QFN.

Electrical Characteristics

Temp = +25°C, 50Ω input/output loading

<table>
<thead>
<tr>
<th>Parameter</th>
<th>AWP1102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (GHz)</td>
<td>28 - 30</td>
</tr>
<tr>
<td>Gain (dB)</td>
<td>25</td>
</tr>
<tr>
<td>Output Psat (dBm)</td>
<td>34.6</td>
</tr>
<tr>
<td>Bias Voltage - Drain (V)</td>
<td>6</td>
</tr>
<tr>
<td>Bias Current - Drain (A), under RF drive</td>
<td>2.9</td>
</tr>
<tr>
<td>Operating Range</td>
<td>-40 to +85 °C</td>
</tr>
<tr>
<td>Package Size (mm)</td>
<td>5x5 mm 24 pin QFN</td>
</tr>
</tbody>
</table>
Ka-Band High Power Amplifier MMIC

AWP1102

Product Overview

Preliminary Data

Psat vs. Frequency
Temp = +25°C, Vds = 6V, Id = 2.9A

Gain vs. Frequency
Temp = +25°C, Vds = 6V, Idq = 2.2A

Package and Pin Out

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Rev. V5A

This part is lead-free and is compliant with the RoHS directive

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