Description

The F1471 is a high linearity RF Driver Amplifier designed to operate within the 400MHz to 4200MHz frequency band. Utilizing a single 5V power supply and only 130mA of $I_CQ$, the F1471 provides 17dB of gain and +28.5dBm OP1dB.

The F1471 is packaged in a 3 × 3 mm, 16-VFQFPN package, with matched 50Ω input and output impedances for ease of integration into the signal path.

Features

- RF range: 400MHz to 4200MHz
- 17dB typical gain
- +28.5dBm OP1dB
- 5V power supply
- Adjustable DC Bias
- Bias control compatible for 3.3V and 5V operation
- 50Ω Single-ended input and output impedances
- Standby Mode for power savings
- Internal DC Overvoltage protection
- Internal RF Overdrive protection
- On-Chip ESD protection
- Operating temperature ($T_{EP}$) range: -40°C to +115°C
- 3 × 3 mm, 16-VFQFPN package

Typical Applications

- 4G / 5G Cellular Base stations
- Multi-mode, Multi-carrier Transmitters
- Active Antenna Systems
- General Purpose Wireless

Block Diagram

Figure 1. Block Diagram
Ordering Information

<table>
<thead>
<tr>
<th>Orderable Part Number</th>
<th>Package</th>
<th>MSL Rating</th>
<th>Shipping Packaging</th>
<th>Temperature</th>
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<tbody>
<tr>
<td>F1471NTGI</td>
<td>3 × 3 × 0.75 mm 16-VFQFPN</td>
<td>1</td>
<td>Tray</td>
<td>-40° to +115°C</td>
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<tr>
<td>F1471NTGI8</td>
<td>3 × 3 × 0.75 mm 16-VFQFPN</td>
<td>1</td>
<td>Reel</td>
<td>-40° to +115°C</td>
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<tr>
<td>F1471EVB-0P5</td>
<td>Evaluation Board 400MHz – 500MHz Tune</td>
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<td>F1471EVB-0P9</td>
<td>Evaluation Board 700MHz – 1100MHz Tune</td>
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<td>F1471EVB-2P1</td>
<td>Evaluation Board 1700MHz – 2300MHz Tune</td>
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<td>F1471EVB-2P6</td>
<td>Evaluation Board 2300MHz – 2900MHz Tune</td>
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<td>F1471EVB-3P6</td>
<td>Evaluation Board 3300MHz – 3900MHz Tune</td>
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<td>F1471EVB-4P0</td>
<td>Evaluation Board 3800MHz – 4200MHz Tune</td>
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Revision History

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>Description of Change</th>
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<tr>
<td>April 28, 2020</td>
<td>Initial release.</td>
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(Rev.1.0 Mar 2020)

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