## Programmable Phase Locked Loop
### Surface Mount Module

**Applications**
- Telecommunications
- Satellite
- Telemetry

**Application Notes**
- AN-107: Manual Soldering Technique
- AN-202: Programming Z-COMM PLLs

### Performance Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>85</td>
<td>95</td>
<td>MHz</td>
<td></td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-101</td>
<td></td>
<td>dBc/Hz</td>
<td></td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-10</td>
<td>dBc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spurious Suppression</td>
<td>-65</td>
<td>dBc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Output</td>
<td>-2</td>
<td>0.5</td>
<td>3 dBm</td>
<td></td>
</tr>
<tr>
<td>Load Impedance</td>
<td>50</td>
<td>Ω</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step Size</td>
<td>50</td>
<td>kHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase Detector Frequency</td>
<td>50</td>
<td>kHz</td>
<td></td>
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</tr>
<tr>
<td>Settling Time</td>
<td>3</td>
<td>mS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charge Pump Output Current</td>
<td>1250</td>
<td>μA</td>
<td></td>
<td></td>
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<tr>
<td>Operating Temperature Range</td>
<td>-40</td>
<td>85</td>
<td>°C</td>
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<tr>
<td>Package Style</td>
<td>PLL</td>
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</tbody>
</table>

### Power Supply Requirements

| Supply Voltage 1: PLL (Vcc, nom)       | 3.3  | Vdc  |
| Supply Voltage 2: VCO (Vcc, nom)      | N/A  | Vdc  |
| Supply Current 1: PLL (Icc, typ)      | 30   | mA   |
| Supply Current 2: VCO (Icc, typ)      | N/A  | mA   |

### Reference Oscillator Signal

| Frequency                              | 10   | MHz  |
| Phase Noise @ 1 kHz Offset             | -145 | dBc/Hz|

### Additional Notes

Phase Locked Loop Internal IC: Analog Devices / ADF4001

LFSuffix = RoHS Compliant. All specifications are subject to change without notice.
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### Phase Noise, typ.

**PHASE NOISE (1 Hz BW, typical)**

![Phase Noise Graph]

**Footprint**

**RECOMMENDED FOOTPRINT**

- SEVERAL HOLES OF 0.015 IN. ON GND. PLANE ARE RECOMMENDED FOR GOOD GROUNDING.
- 0.030 MIN. CUTBACK FROM LIVE PADS

**Physical Dimensions**

**NOTE:** ALL DIMENSIONS ARE IN INCHES

TOL: XXX: +/- 0.010

**PIN CONFIGURATION**

1. RF OUT
2. REF IN
3. CLOCK
4. DATA
5. ENABLE
6. LOCK DETECT
7. Vcc
8. OPTIONAL
9. N/C
10. REST
11. GROUND
12. Z-COMM XXXXXXX-LF W/O# D/C

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