Voltage-Controlled Oscillator
Surface Mount Module

Applications
- Portable Radios
- PCS
- Downconverters

Application Notes
- AN-101: Mounting and Grounding
- AN-102: Output Loading
- AN-107: Manual Soldering

Performance Specifications

<table>
<thead>
<tr>
<th>Performance Specifications</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oscillation Frequency Range</td>
<td>1750</td>
<td>2000</td>
<td>MHz</td>
<td></td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-101</td>
<td>dBc/Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-16</td>
<td>dBc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>2</td>
<td>9.5</td>
<td>Vdc</td>
<td></td>
</tr>
<tr>
<td>Tuning Sensitivity (avg.)</td>
<td>54</td>
<td>MHz/V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Output</td>
<td>3</td>
<td>6.5</td>
<td>10</td>
<td>dBm</td>
</tr>
<tr>
<td>Load Impedance</td>
<td>50</td>
<td>Ω</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input Capacitance</td>
<td>50</td>
<td>pF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pushing</td>
<td>6</td>
<td>MHz/V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulling (14 dB Return Loss, Any Phase)</td>
<td>5</td>
<td>MHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-55</td>
<td>75</td>
<td>°C</td>
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<tr>
<td>Package Style</td>
<td>MINI-14S-L</td>
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</tbody>
</table>

Power Supply Requirements

<table>
<thead>
<tr>
<th>Power Supply Requirements</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage (Vcc, nom.)</td>
<td>10</td>
<td></td>
<td>Vdc</td>
<td></td>
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<tr>
<td>Supply Current (Icc)</td>
<td>23</td>
<td>30</td>
<td>mA</td>
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</tbody>
</table>

Additional Notes

LFSuffix = RoHS Compliant. All specifications are subject to change without notice.
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Surface Mount Module  

**Tuning Curve, typ.**

- **FREQUENCY (MHz)**
  - 1000
  - 1200
  - 1400
  - 1600
  - 1800
  - 2000
  - 2200

- **TUNING VOLTAGE (Vdc)**
  - 0
  - 0.5
  - 1
  - 1.5
  - 2
  - 2.5
  - 3
  - 3.5
  - 4
  - 4.5
  - 5
  - 5.5
  - 6
  - 6.5
  - 7
  - 7.5
  - 8
  - 8.5
  - 9
  - 9.5

**Power Curve, typ.**

- **POWER OUTPUT (dBm)**
  - 0.030
  - 0.050
  - 0.070

- **FREQUENCY (MHz)**
  - 1433
  - 1551
  - 1633
  - 1703
  - 1765
  - 1825
  - 1882
  - 1939
  - 1995
  - 2052

**Footprint**

- **RECOMMENDED FOOTPRINT**
  - SEVERAL HOLES OF 0.015 ON GND. PLANE ARE RECOMMENDED FOR GOOD GROUNDING.

**Physical Dimensions**

- **PACKAGE**
  - MINI-14S
  - MINI-14S-LOW
  - MINI-14S-L

- **NOTE:** ALL DIMENSIONS ARE IN INCHES
- **TOL:** XXX: +/- 0.010

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