Voltage-Controlled Oscillator
Surface Mount Module

Applications
- P25 Mobile Radios
- Basestation Equipment

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

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>Oscillation Frequency Range</td>
<td>390</td>
<td>448</td>
<td>MHz</td>
<td></td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-117</td>
<td>dBc/Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-15</td>
<td>-13</td>
<td>dBc</td>
<td></td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>0</td>
<td>5</td>
<td>Vdc</td>
<td></td>
</tr>
<tr>
<td>Tuning Sensitivity (avg.)</td>
<td>17</td>
<td>MHz/V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Output</td>
<td>-7</td>
<td>-4</td>
<td>-1</td>
<td>dBm</td>
</tr>
<tr>
<td>Load Impedance</td>
<td>50</td>
<td></td>
<td>Ω</td>
<td></td>
</tr>
<tr>
<td>Input Capacitance</td>
<td>47</td>
<td>pF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pushing</td>
<td>.5</td>
<td>MHz/V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulling (12 dB Return Loss, Any Phase)</td>
<td>.1</td>
<td>MHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-30</td>
<td>70</td>
<td>°C</td>
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<tr>
<td>Package Style</td>
<td>MINI-16-SM</td>
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</table>

Power Supply Requirements

<table>
<thead>
<tr>
<th>Specification</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage (Vcc, nom.)</td>
<td>5</td>
<td></td>
<td>Vdc</td>
<td></td>
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<tr>
<td>Supply Current (Icc)</td>
<td>40</td>
<td>44</td>
<td>mA</td>
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</tbody>
</table>

Additional Notes

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Voltage-Controlled Oscillator
Surface Mount Module

Tuning Curve, typ.

Power Curve, typ.

Footprint

Physical Dimensions

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

Several holes of Ø 0.015 on GND. plane are recommended for good grounding.

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