Voltage-Controlled Oscillator  
Surface Mount Module

Applications

• Digital Radio Equipment  
• Fixed Wireless Access  
• Satellite Communication Systems

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>2080</td>
<td>2158</td>
<td>MHz</td>
<td></td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-110</td>
<td>dBc/Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-22</td>
<td>-20</td>
<td>dBc</td>
<td></td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>0.4</td>
<td>5.4</td>
<td>Vdc</td>
<td></td>
</tr>
<tr>
<td>Tuning Sensitivity (avg.)</td>
<td>20</td>
<td>MHz/V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Output</td>
<td>0</td>
<td>2.5</td>
<td>5</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>50</td>
<td>pF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pushing (12 dB Return Loss, Any Phase)</td>
<td>1</td>
<td>MHz</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>MINI-16-SM</td>
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</table>

Power Supply Requirements

<table>
<thead>
<tr>
<th>Requirement</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>
</tr>
<tr>
<td>Supply Current (Icc)</td>
<td>23</td>
<td>28</td>
<td>mA</td>
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</tr>
</tbody>
</table>

Additional Notes

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

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**Tuning Curve, typ.**

![Tuning Curve Diagram]

- **TUNING VOLTAGE (Vdc)**
- **FREQUENCY (MHz)**
- **Power Curve, typ.**

![Power Curve Diagram]

- **POWER OUTPUT (dBm)**
- **FREQUENCY (MHz)**

- **Footprint**

![Footprint Diagram]

- **Recommended Footprint**
- **Several holes of 0.015 on GND plane are recommended for good grounding.**

- **Power Output**:
  - 85°C
  - 25°C
  - -40°C

- **Frequency**:
  - 85°C
  - 25°C
  - -40°C

**Physical Dimensions**

![Physical Dimensions Diagram]

- **Solder Mask**
- **Gold Plated Pins**

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