## 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>Performance Specification</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oscillation Frequency Range</td>
<td>1000</td>
<td>1000</td>
<td>MHz</td>
<td></td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-121</td>
<td></td>
<td></td>
<td>dBc/Hz</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>3.3</td>
<td>Vdc</td>
<td></td>
</tr>
<tr>
<td>Tuning Sensitivity (avg.)</td>
<td>4</td>
<td></td>
<td>MHz/V</td>
<td></td>
</tr>
<tr>
<td>Power Output</td>
<td>0</td>
<td>3</td>
<td>6</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></td>
<td>pF</td>
<td></td>
</tr>
<tr>
<td>Pushing</td>
<td>.5</td>
<td></td>
<td>MHz/V</td>
<td></td>
</tr>
<tr>
<td>Pulling (12 dB Return Loss, Any Phase)</td>
<td>.5</td>
<td></td>
<td>MHz</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40</td>
<td></td>
<td>85</td>
<td>°C</td>
</tr>
<tr>
<td>Package Style</td>
<td>MINI-16HL-SM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Power Supply Requirements
<table>
<thead>
<tr>
<th>Power Supply 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>18</td>
<td>22</td>
<td>mA</td>
<td></td>
</tr>
</tbody>
</table>

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

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PHASE NOISE (1 Hz BW, typical)

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

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

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**Voltage-Controlled Oscillator**  
**Surface Mount Module**

**CRO1000B-LF**  
Rev A1

### Tuning Curve, typ.

![Tuning Curve Graph]

- **TUNING VOLTAGE (Vdc)**
- **FREQUENCY (MHz)**
- **85°C**
- **25°C**
- **-40°C**

### Power Curve, typ.

![Power Curve Graph]

- **POWER OUTPUT (dBm)**
- **FREQUENCY (MHz)**
- **85°C**
- **25°C**
- **-40°C**

### Footprint

![Footprint Diagram]

- **RECOMMENDED FOOTPRINT**
- **0.030 MIN. CUTBACK FROM LIVE PADS**

### Physical Dimensions

![Physical Dimensions Diagram]

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

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Page 2 of 2  
FRM-S-002 B