# 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>Parameter</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oscillation Frequency Range</td>
<td>815</td>
<td>815</td>
<td>MHz</td>
<td></td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-122</td>
<td></td>
<td>dBc/Hz</td>
<td></td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-5</td>
<td></td>
<td>dBc</td>
<td></td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>0.5</td>
<td>4.5</td>
<td>Vdc</td>
<td></td>
</tr>
<tr>
<td>Tuning Sensitivity (avg.)</td>
<td>3</td>
<td></td>
<td>MHz/V</td>
<td></td>
</tr>
<tr>
<td>Power Output</td>
<td>-2</td>
<td>1</td>
<td>4</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>85</td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>Package Style</td>
<td>MINI-16HL-SM</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

## Power Supply Requirements

<table>
<thead>
<tr>
<th>Parameter</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>15</td>
<td>18</td>
<td>mA</td>
<td></td>
</tr>
</tbody>
</table>

## Additional Notes

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

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

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**Voltage-Controlled Oscillator**

**Surface Mount Module**

**CRO0815A-LF**

Rev A1

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**Tuning Curve, typ.**

- **TUNING VOLTAGE (Vdc)**
- **FREQUENCY (MHz)**
- **TUNING VOLTAGE (Vdc)**

![Graph showing tuning curve with temperature marked: 85°C, 25°C, -40°C.]

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**Power Curve, typ.**

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

![Graph showing power curve with temperature marked: 85°C, 25°C, -40°C.]

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**Footprint**

- **RECOMMENDED FOOTPRINT**
- **SOLDER MASK**
- **GOLD PLATED PADS**

![Footprint diagram with recommended dimensions and tolerances.]

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**Physical Dimensions**

- **Z-COMM XXXXXXXX-LF W/O# D/C**

![Physical dimension diagram with notes on dimensions and tolerances.]

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