Voltage-Controlled Oscillator
Surface Mount Module

Applications
- Backhaul Radio
- Test Equipment

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>1627</td>
<td>1662</td>
<td></td>
<td>MHz</td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-112</td>
<td></td>
<td></td>
<td>dBC/Hz</td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-18</td>
<td>-15</td>
<td></td>
<td>dBC</td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>0.5</td>
<td></td>
<td>4.5</td>
<td>Vdc</td>
</tr>
<tr>
<td>Tuning Sensitivity (avg.)</td>
<td></td>
<td>15</td>
<td></td>
<td>MHz/V</td>
</tr>
<tr>
<td>Power Output</td>
<td>-2</td>
<td></td>
<td>2</td>
<td>dBm</td>
</tr>
<tr>
<td>Load Impedance</td>
<td>50</td>
<td></td>
<td></td>
<td>Ω</td>
</tr>
<tr>
<td>Input Capacitance</td>
<td></td>
<td>50</td>
<td></td>
<td>pF</td>
</tr>
<tr>
<td>Pushing (12 dB Return Loss, Any Phase)</td>
<td></td>
<td>1</td>
<td></td>
<td>MHz/V</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></td>
<td>MINI-16-SM</td>
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</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></td>
<td>Vdc</td>
</tr>
<tr>
<td>Supply Current (Icc)</td>
<td>25</td>
<td></td>
<td>30</td>
<td>mA</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.
**Voltage-Controlled Oscillator**

**Surface Mount Module**

**CRO1644A-LF**

**Rev A1**

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**Tuning Curve, typ.**

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

- **85 °C**
- **25 °C**
- **-40 °C**

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**Power Curve, typ.**

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

- **85 °C**
- **25 °C**
- **-40 °C**

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**Footprint**

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

- **0.030 Min. Cutback from live pads**

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**Physical Dimensions**

- **SOLDER MASK**
- **GOLD PLATED PADS**

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