## Voltage-Controlled Oscillator
Surface Mount Module

### Applications
- Satellite Communications
- Microwave Radios

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

### Performance Specifications

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oscillation Frequency Range</td>
<td>2040</td>
<td></td>
<td>2200</td>
<td>MHz</td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-108</td>
<td></td>
<td></td>
<td>dBc/Hz</td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-20</td>
<td>-15</td>
<td></td>
<td>dBc</td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>.5</td>
<td></td>
<td>13</td>
<td>Vdc</td>
</tr>
<tr>
<td>Tuning Sensitivity (avg.)</td>
<td>30</td>
<td></td>
<td></td>
<td>MHz/V</td>
</tr>
<tr>
<td>Power Output</td>
<td>4</td>
<td>7</td>
<td>10</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>50</td>
<td></td>
<td></td>
<td>pF</td>
</tr>
<tr>
<td>Pushing</td>
<td>1</td>
<td></td>
<td></td>
<td>MHz/V</td>
</tr>
<tr>
<td>Pulling (14 dB Return Loss, Any Phase)</td>
<td>1</td>
<td></td>
<td></td>
<td>MHz</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-16-SM</td>
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</table>

### Power Supply Requirements

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Supply Voltage (Vcc, nom.)</td>
<td>8</td>
<td></td>
<td></td>
<td>Vdc</td>
</tr>
<tr>
<td>Supply Current (Icc)</td>
<td>25</td>
<td>30</td>
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<td>mA</td>
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</tbody>
</table>

### Additional Notes
**Voltage-Controlled Oscillator**

**Surface Mount Module**

**CRO2120G-LF**

Revised A1

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### Tuning Curve, typ.

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

- **X-axis:** 1850 - 2250 MHz
- **Y-axis:** 0 - 12 dBm

#### Temperature Variants:
- **85°C**
- **25°C**
- **-40°C**

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### Power Curve, typ.

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

#### Temperature Variants:
- **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

- **Z-COMM XXXXXXXX-LF**
- **W/O #: D/C**
- **P1, P2, P3:**
  - **VCC, VCC, GND**

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

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