# Voltage-Controlled Oscillator 
## Surface Mount Module

## Applications
- Digital Radio Equipment
- Fixed Wireless Access

## 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>2250</td>
<td>2300</td>
<td></td>
<td>MHz</td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-113</td>
<td></td>
<td></td>
<td>dBc/Hz</td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-15</td>
<td>-13</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>20</td>
<td></td>
<td></td>
<td>MHz/V</td>
</tr>
<tr>
<td>Power Output</td>
<td>0</td>
<td>1.5</td>
<td>3</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>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>-10</td>
<td></td>
<td>75</td>
<td>°C</td>
</tr>
</tbody>
</table>

## Package Style
- MINI-16-SM

## Power Supply Requirements

<table>
<thead>
<tr>
<th></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>21</td>
<td></td>
<td>25</td>
<td>mA</td>
</tr>
</tbody>
</table>

## Additional Notes

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

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

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Tuning Curve, typ.

![Tuning Curve Graph](image)

- 75°C
- 25°C
- -10°C

Power Curve, typ.

![Power Curve Graph](image)

- 75°C
- 25°C
- -10°C

Footprint

![Footprint Diagram](image)

RECOMMENDED FOOTPRINT
SEVERAL HOLES OF 0.015 IN GND. PLANE ARE RECOMMENDED FOR GOOD GROUNDING.

0.030 MIN. CUTBACK FROM LIVE PADS

Physical Dimensions

![Physical Dimensions](image)

NOTE: ALL DIMENSIONS ARE IN INCHES

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