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

### Applications
- Radio Equipment
- Broadcast 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>2400</td>
<td>2485</td>
<td>MHz</td>
<td></td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-95</td>
<td></td>
<td>dBc/Hz</td>
<td></td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-25</td>
<td>-20</td>
<td>dBc</td>
<td></td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>0.7</td>
<td>4.2</td>
<td>Vdc</td>
<td></td>
</tr>
<tr>
<td>Tuning Sensitivity (avg.)</td>
<td></td>
<td>67</td>
<td>MHz/V</td>
<td></td>
</tr>
<tr>
<td>Power Output</td>
<td>3</td>
<td>5</td>
<td>7</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></td>
<td>50</td>
<td>pF</td>
<td></td>
</tr>
<tr>
<td>Pushing (14 dB Return Loss, Any Phase)</td>
<td>3</td>
<td></td>
<td>MHz/V</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-14H-L</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>Vdc</td>
<td></td>
</tr>
<tr>
<td>Supply Current (Icc)</td>
<td>11</td>
<td>13</td>
<td>mA</td>
<td></td>
</tr>
</tbody>
</table>

### Additional Notes

- Application Notes: AN-101, AN-102, AN-107
- LFSuffix = RoHS Compliant. All specifications are subject to change without notice.

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Voltage-Controlled Oscillator
Surface Mount Module

Tuning Curve, typ.

FREQUENCY (MHz)

POWER OUTPUT (dBm)

FREQUENCY (MHz)

P1          Vt
P2          RF OUT
P3          Vcc

PIN CONFIGURATION

REST     GROUND

PACKAGE        H
MINI-14H        0.220
MINI-14H-Low    0.160
MINI-14H-L     0.130

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

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

recommended footprint
several holes of 0.015 on
GND. Plane are recommended
for good grounding.

0.030 min. cutback
from live pads

0.070 TYP

0.050
0.090 2X
0.215 2X
0.315 2X
0.415 2X
0.500

0.080
0.150
0.114
0.050
0.045
0.075
0.035

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