# 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>Performance Specification</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oscillation Frequency Range</td>
<td>4200</td>
<td>4400</td>
<td>MHz</td>
<td></td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-84</td>
<td></td>
<td></td>
<td>dBc/Hz</td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-25</td>
<td></td>
<td></td>
<td>dBc</td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>2</td>
<td>10</td>
<td>Vdc</td>
<td></td>
</tr>
<tr>
<td>Tuning Sensitivity (avg.)</td>
<td></td>
<td>47</td>
<td>MHz/V</td>
<td></td>
</tr>
<tr>
<td>Power Output</td>
<td>-3</td>
<td>.5</td>
<td>4</td>
<td>dBm</td>
</tr>
<tr>
<td>Load Impedance</td>
<td>50</td>
<td></td>
<td></td>
<td>Ω</td>
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<tr>
<td>Input Capacitance</td>
<td></td>
<td>25</td>
<td>pF</td>
<td></td>
</tr>
<tr>
<td>Pushing</td>
<td>8</td>
<td>6</td>
<td>MHz/V</td>
<td></td>
</tr>
<tr>
<td>Pulling (14 dB Return Loss, Any Phase)</td>
<td></td>
<td></td>
<td></td>
<td>MHz</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40</td>
<td>85</td>
<td>°C</td>
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<td>Package Style</td>
<td>MINI-14S-L</td>
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</table>

## Power Supply Requirements

<table>
<thead>
<tr>
<th>Power Supply Requirement</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>
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<td>Vdc</td>
<td></td>
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<tr>
<td>Supply Current (Icc)</td>
<td>26</td>
<td>31</td>
<td>mA</td>
<td></td>
</tr>
</tbody>
</table>

## Additional Notes

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

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**Application Notes**

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

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**Performance Specifications**

- Oscillation Frequency Range: 4200 MHz to 4400 MHz
- Phase Noise @ 10 kHz offset (1 Hz BW): -84 dBc/Hz
- Harmonic Suppression (2nd): -25 dBc
- Tuning Voltage: 2 Vdc to 10 Vdc
- Tuning Sensitivity (avg.): 47 MHz/V
- Power Output: -3 dBm to 4 dBm
- Load Impedance: 50 Ω
- Input Capacitance: 25 pF
- Pushing: 8 MHz/V
- Pulling (14 dB Return Loss, Any Phase): 6 MHz
- Operating Temperature Range: -40°C to 85°C
- Package Style: MINI-14S-L

**Power Supply Requirements**

- Supply Voltage (Vcc, nom.): 5 Vdc
- Supply Current (Icc): 26 mA to 31 mA

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**Additional Notes**

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- AN-102: Output Loading
- AN-107: Manual Soldering
**Voltage-Controlled Oscillator**  
**Surface Mount Module**

**Tuning Curve, typ.**

- **Power Curve, typ.**

- **Footprint**

- **Physical Dimensions**

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

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