VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: MFC5360-5

OPTIMIZED BANDWIDTH
535 - 600 MHz

FEATURES:
► Low Phase Noise Performance
► Fast Tuning
► Ideal for PLL Applications
► Small Size, Surface Mount
► Lead Free Patented REL-PRO® Technology

SPECIFICATIONS (Rev. C 08/24/09)

Frequency 535 - 600 MHz
Tuning Voltage See table below.
Bias Voltage +5 VDC @ 16 mA (Max.)
Output Power +3.5 dBm (Min.)
Tuning Sensitivity 17 - 24 MHz/V (Typ.)
Output Impedance 50 Ohms (Nom.)
Harmonic Suppression 18 dB (Typ.)
Frequency Pulling 3 MHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing 2 MHz/V (Typ.)
Tuning Port Capacitance 55 pF (Typ.)
Phase Noise @ 10 kHz -108 dBc/Hz (Typ.)
Operating Temperature Range -40 to 85 °C

Guaranteed Tuning Specifications

<table>
<thead>
<tr>
<th>Tuning Voltage (V)</th>
<th>Frequency (MHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>535 (Max.)</td>
</tr>
<tr>
<td>5</td>
<td>600 (Min.)</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Storage Temp. Range</th>
<th>-55 to +125 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bias Voltage</td>
<td>+5.5 V</td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>+10 V</td>
</tr>
<tr>
<td>DC Voltage Applied to RF Out</td>
<td>± 25 V</td>
</tr>
</tbody>
</table>

Package # 278LF

RECOMMENDED PCB LAYOUT

Dimensions are in inches.

Tolerances on three decimal places = ± 0.015

All unlabeled pins to be grounded.

Package mounting; see application note AN7200 & AN7300

This product is manufactured under one or more of the following patents. Approved: 5,160,810; 5,122,621; 5,390,349; 5,416,449; 5,650,754; 5,805,431; 6,265,642; 7,088,189; 7,180,381; 7,196,591; 7,262,670; 7,265,642; 7,292,113; 7,365,612; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 7,580,693; 7,586,381; 7,605,670; 7,636,021; 2,524,751

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PERFORMANCE PLOTS

Frequency (MHz) vs. Control Voltage (Vdc)

Output Power (dBm) vs. Control Voltage (Vdc)

+25ºC  +85ºC  -40ºC
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