VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: MFC96103-5

OPTIMIZED BANDWIDTH
960 - 1030 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 12/01/08)
Frequency: 960 - 1030 MHz
Tuning Voltage: See table below.
Bias Voltage: +5 VDC @ 30 mA (Max.)
Output Power: +3 dBm (Min.)
Tuning Sensitivity: 8 - 28 MHz/V (Typ.)
Output Impedance: 50 Ohms (Nom.)
Harmonic Suppression: 25 dB (Typ.)
Frequency Pulling: 4 MHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing: 3 MHz/V (Typ.)
Tuning Port Capacitance: 56 pF (Typ.)
Phase Noise @ 10 kHz: -112 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>960 (Max.)</td>
</tr>
<tr>
<td>4</td>
<td>1000 (Min.)</td>
</tr>
<tr>
<td>8</td>
<td>1030 (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

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; 6,525,623; 6,850,575; 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; 2,563,174; 7,612,296; 2,524,751

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PERFORMANCE PLOTS

Tuning Sensitivity (MHz/V) vs. Control Voltage (Vdc)

- +25°C
- +85°C
- -40°C

2nd Harmonic Suppression (dB) vs. Control Voltage (Vdc)

- +25°C
- +85°C
- -40°C