VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCMO90220-12

WIDE BANDWIDTH

900 - 2200 MHz

FEATURES:
- Exceptional Phase Noise Performance
- Small Size, Surface Mount
- Lead Free Patented REL-PRO® Technology

SPECIFICATIONS (Rev. G 07/03/07)

**Frequency**
900 - 2200 MHz

**Tuning Voltage**
See table below.

**Bias Voltage**
+12 VDC @ 35 mA (Max)

**Output Power**
+4 dBm (Min)

**Tuning Sensitivity**
30 - 90 MHz/V (Typ)

**Output Impedance**
50 Ohms (Nom)

**Harmonic Suppression**
10 dB (Min)

**Frequency Pulling**
15 MHz (Typ @ 1.75:1 VSWR)

**Frequency Pushing**
8 MHz/V (Typ)

**Phase Noise @ 10 kHz**
-99 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>900 (Max)</td>
</tr>
<tr>
<td>5</td>
<td>1100 (Min)</td>
</tr>
<tr>
<td>8</td>
<td>1250 (Min)</td>
</tr>
<tr>
<td>12</td>
<td>1500 (Min)</td>
</tr>
<tr>
<td>15</td>
<td>1650 (Min)</td>
</tr>
<tr>
<td>18</td>
<td>1850 (Min)</td>
</tr>
<tr>
<td>24</td>
<td>2200 (Min)</td>
</tr>
</tbody>
</table>

Package #
278LF

**Recommended PCB Layout**

Dimensions are in inches. All unlabeled pins to be grounded.

Package Mounting: See Application Note AN7200 & AN7300
VOLTAGE CONTROLLED OSCILLATOR
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PERFORMANCE PLOTS

This product is manufactured under one or more of the following patents. Approved: 5,160,810; 5,122,621; 5,390,349; 5,550,754; 5,685,451; 6,233,025; 6,883,575; 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; 2,563,174; 7,545,229; 7,580,693; 7,586,381; 7,605,670; 7,636,021; 2,524,751

Pending: 60/493075; 60/501371 & 60/501790; 60/527957 & 60/528670; 60/424681; 60/426173; 60/428090; 60/428670; 60/435761; 60/436417; 60/446006; 60/446523; 60/446761; 60/447904; 10/259766; 60/472485 & 60/710310; 10/937525/60/736901; 60/732787; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 7,580,693; 7,612,296; 2,524,751
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SURFACE MOUNT MODEL: DCMO90220-12

WIDE BANDWIDTH
900 - 2200 MHz

PERFORMANCE PLOTS

0 5 10 15 20 25
Control Voltage (Vdc)

Tuning Sensitivity (MHz/V)

+25°C  +85°C  -40°C

0 5 10 15 20 25
Control Voltage (Vdc)

2nd Harmonic Suppression (dBc)

+25°C  +85°C  -40°C

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