VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCR0175290-5

OPTIMIZED BANDWIDTH
1750 - 2900 MHz

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

SPECIFICATIONS (Rev. D 08/24/09)

Frequency
1750 - 2900 MHz

Tuning Voltage
See table below.

Bias Voltage
+5 VDC @ 24 mA (Max.)

Output Power
+4 dBm (Min.)

Tuning Sensitivity
22 - 115 MHz/V (Typ.)

Output Impedance
50 Ohms (Nom.)

Harmonic Suppression
20 dB (Typ.)

Frequency Pulling
5 MHz (Typ. @ 1.75:1 VSWR)

Frequency Pushing
4 MHz/V (Typ.)

Tuning Port Capacitance
106 pF (Typ.)

Phase Noise @ 10 kHz
-95 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>1750 (Max.)</td>
</tr>
<tr>
<td>5</td>
<td>1950 (Min.)</td>
</tr>
<tr>
<td>8</td>
<td>2250 (Min.)</td>
</tr>
<tr>
<td>12</td>
<td>2500 (Min.)</td>
</tr>
<tr>
<td>15</td>
<td>2700 (Min.)</td>
</tr>
<tr>
<td>18</td>
<td>2800 (Min.)</td>
</tr>
<tr>
<td>20</td>
<td>2900 (Min.)</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

Storage Temp. Range
-55 to +125 °C

Bias Voltage
+5.5 V

Tuning Voltage
+24 V

DC Voltage Applied to RF Out
± 25 V

Package #
278LF

RECOMMENDED PCB LAYOUT

DIMENSIONS ARE IN INCHES.

TO BE GROUNDED. ALL UNLAFERED PINS
TOLERANCES ON THREE DECIMAL PLACES= ± 0.015
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCRO175290-5
OPTIMIZED BANDWIDTH
1750 - 2900 MHz

PERFORMANCE PLOTS

[Graphs showing tuning sensitivity and 2nd harmonic suppression for different control voltages and temperatures (+25°C, +85°C, -40°C).]