VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCR0335395-10

OPTIMIZED BANDWIDTH
3350 - 3950 MHz

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

SPECIFICATIONS (Rev. C 05/29/08)

Frequency 3350 - 3950 MHz
Tuning Voltage See table below.
Bias Voltage +10 VDC @ 38 mA (Max.)
Output Power +3 dBm (Min.)
Tuning Sensitivity 14 - 42 MHz/V (Typ.)
Output Impedance 50 Ohms (Nom.)
Harmonic Suppression 28 dB (Typ.)
Frequency Pulling 8 MHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing 3 MHz/V (Typ.)
Tuning Port Capacitance 40 pF (Typ.)
Phase Noise @ 10 kHz -101 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>3350 (Max)</td>
</tr>
<tr>
<td>5</td>
<td>3400 (Min)</td>
</tr>
<tr>
<td>8</td>
<td>3450 (Min)</td>
</tr>
<tr>
<td>12</td>
<td>3600 (Min)</td>
</tr>
<tr>
<td>15</td>
<td>3700 (Min)</td>
</tr>
<tr>
<td>18</td>
<td>3800 (Min)</td>
</tr>
<tr>
<td>24</td>
<td>3950 (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>+10.5 V</td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>+28 V</td>
</tr>
<tr>
<td>DC Voltage Applied to RF Out</td>
<td>± 25 V</td>
</tr>
</tbody>
</table>

Phase Noise

Phase Noise (dBc/Hz) vs. Offset Frequency (Hz)

PACKAGE # 278LF

-300 -200 -100 0 100 200 300 400 500 600 700 800 900 1000
-20 0 20 40 60 80 100 120 140 160 180

RECOMMENDED PCB LAYOUT

DIMENSIONS ARE IN MILLIMETERS.
TOLERANCES ON THREE DECIMAL PLACES.
ALL UNLABELED PINS TO BE GROUNDED.
PACKAGE MOUNTING: SEE APPLICATION NOTE AN7200 & AN7300

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VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCRO335395-10

OPTIMIZED BANDWIDTH

3350 - 3950 MHz

PERFORMANCE PLOTS

Control Voltage (Vdc)

Output Power (dBm)

Frequency (MHz)

+25ºC  +85ºC  -40ºC

Control Voltage (Vdc)

Output Power (dBm)

+25ºC  +85ºC  -40ºC
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCRO335395-10

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; 6,335,625; 6,383,075; 7,088,189; 7,180,381; 7,262,670; 7,292,113; 7,365,612; 7,495,525; 2,548,311; 2,548,317; 7,580,693; 7,586,381; 7,605,670; 7,612,296; 2,524,751

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