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

SPECIFICATIONS (Rev. B 09/18/12)

Frequency 682 - 830 MHz
Tuning Voltage See table below.
Bias Voltage +5 VDC @ 31 mA (Max.)
Output Power +3 dBm (Min.)
Tuning Sensitivity 7 - 11 MHz/V (Typ.)
Output Impedance 50 Ohms (Nom.)
Harmonic Suppression 20 dB (Typ.)
Frequency Pulling 0.6 MHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing 0.6 MHz/V (Typ.)
Tuning Port Capacitance 160 pF (Typ.)
Phase Noise @ 10 kHz -119 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>682 (Max.)</td>
</tr>
<tr>
<td>5</td>
<td>700 (Min.)</td>
</tr>
<tr>
<td>8</td>
<td>725 (Min.)</td>
</tr>
<tr>
<td>12</td>
<td>760 (Min.)</td>
</tr>
<tr>
<td>15</td>
<td>790 (Min.)</td>
</tr>
<tr>
<td>20</td>
<td>830 (Min.)</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temp. Range</td>
<td>-55 to +125 °C</td>
</tr>
<tr>
<td>Bias Voltage</td>
<td>+5.5 V</td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>+24 V</td>
</tr>
<tr>
<td>DC Voltage Applied to RF Out</td>
<td>±25 V</td>
</tr>
</tbody>
</table>

Phase Noise

Package # 278LF

RECOMMENDED PCB LAYOUT

TOLERANCES ON THREE DECIMAL PLACES ± 0.15

DIMENSIONS ARE IN INCHES.
ALL UNLabeled FINS TO BE GROUNDED.
PACKAGE MOUNTING: SEE APPLICATION NOTE AM7200 & AM7300
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCRO6883-5

OPTIMIZED BANDWIDTH 682 - 830 MHz

PERFORMANCE PLOTS

This product is manufactured under one or more of the following patents. Approved: 5,160,810; 5,122,621; 5,390,349; 5,416,449; 5,550,754; 5,605,411; 6,203,625; 6,893,973; 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; 2,548,317; 7,580,693; 7,612,296; 2,524,751

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VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCRO6883-5
OPTIMIZED BANDWIDTH
682 - 830 MHz

PERFORMANCE PLOTS

Tuning Sensitivity (MHz/V)

Control Voltage (Vdc)

-45 -40 -35 -30 -25 -20 -15 -10 -5 0

2nd Harmonic Suppression (dB)

Control Voltage (Vdc)

-45 -40 -35 -30 -25 -20 -15 -10 -5 0