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

SPECIFICATIONS (Rev. D 09/07/11)

Frequency Analysis:
- 920 - 1030 MHz

Bias Voltage:
- +5 VDC @ 25 mA (Max.)

Output Power:
- +2 dBm (Min.)

Tuning Sensitivity:
- 10 - 25 MHz/V (Typ.)

Output Impedance:
- 50 Ohms (Nom.)

Harmonic Suppression:
- 20 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:
- -108 dBc/Hz (Typ)

Guaranteed Tuning Specifications:

<table>
<thead>
<tr>
<th>Tuning Voltage (V)</th>
<th>Frequency (MHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>920 (Max)</td>
</tr>
<tr>
<td>5</td>
<td>970 (Min)</td>
</tr>
<tr>
<td>8</td>
<td>1000 (Min)</td>
</tr>
<tr>
<td>10</td>
<td>1030 (Min)</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</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>+10 V</td>
</tr>
<tr>
<td>DC Voltage Applied to RF Out</td>
<td>± 25 V</td>
</tr>
</tbody>
</table>

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; 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; 60/563481; 60/564173; 60/589090; 60/601823; 60/605791; EV31369834; 1 1/259766; 60/622485 & 60/710310; 10/937525/60/736901; 60/732787; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 2,563,174; 7,580,693; 7,612,296; 2,524,751

Package # 278LF

RECOMMENDED PCB LAYOUT

TOLERANCES ON THREE
DECIMAL PLACES: ± 0.005

ALL UNLabeled PINs
TO BE GROUNDED.

PACKAGE MOUNTING: SEE APPLICATION NOTE AH7200 & AH7300

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VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCRO92103-5

OPTIMIZED BANDWIDTH
920 - 1030 MHz

PERFORMANCE PLOTS

Frequency (MHz)
Control Voltage (Vdc)

+25ºC  +85ºC  -40ºC

Output Power (dBm)
Control Voltage (Vdc)

+25ºC  +85ºC  -40ºC
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCRO92103-5

OPTIMIZED BANDWIDTH

920 - 1030 MHz

PERFORMANCE PLOTS

- Control Voltage (Vdc)
- Tuning Sensitivity (MHz/V)
- 2nd Harmonic Suppression (dB)

+25ºC  +85ºC  -40ºC

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