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

SPECIFICATIONS (Rev. B 07/03/07)

**Frequency** 1000 - 2000 MHz

**Tuning Voltage (Full Band)** See table below.

**Bias Voltage** +12 VDC @ 40 mA (Max.)

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

**Tuning Sensitivity** 12 - 60 MHz/V (Typ.)

**Output Impedance** 50 Ohms (Nom.)

**Harmonic Suppression** 20 dB (Typ.)

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

**Frequency Pushing** 5 MHz/V (Typ.)

**Tuning Port Capacitance** 90 pF

**Phase Noise @ 10 kHz** -105 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>1000 (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>1750 (Min)</td>
</tr>
<tr>
<td>24</td>
<td>1850 (Min)</td>
</tr>
<tr>
<td>28</td>
<td>2000 (Min)</td>
</tr>
</tbody>
</table>

**Absolute Maximum Ratings**

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temp. Range</td>
<td>-65 to +125 °C</td>
</tr>
<tr>
<td>Bias Voltage</td>
<td>+12.5 V</td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>+30 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**

**Dimensions are in inches.**

- All unlabeled pins to be grounded.
- Package mounting: see application note AN7200 & AN7300.

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*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; 5,650,375; 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; 2,563,174; 7,580,693; 7,612,296; 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...
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCYS100200-12

YIG Replacement Series

1000 - 2000 MHz

PERFORMANCE PLOTS
**VOLTAGE CONTROLLED OSCILLATOR**

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**1000 - 2000 MHz**

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**PERFORMANCE PLOTS**

- **Tuning Sensitivity (MHz/V)**
  - Control Voltage (Vdc)
  - +25°C, +85°C, -40°C

- **2nd Harmonic Suppression (dB)**
  - Control Voltage (Vdc)
  - +25°C, +85°C, -40°C