FEATURES:
- Exceptional Phase Noise Performance
- Self Regulated Power Supply Voltage
- Small Size, Surface Mount
- Lead Free Patented REL-PRO® Technology

SPECIFICATIONS (Rev. I 09/21/09)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>110 - 330 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuning Voltage</td>
<td>See table below.</td>
</tr>
<tr>
<td>Bias Voltage*</td>
<td>+5 to +12 @ 27 mA (Max.)</td>
</tr>
<tr>
<td>Output Power</td>
<td>+3 dBm (Min.)</td>
</tr>
<tr>
<td>Tuning Sensitivity</td>
<td>7 - 16 MHz/V (Typ.)</td>
</tr>
<tr>
<td>Output Impedance</td>
<td>50 Ohms (Nom)</td>
</tr>
<tr>
<td>Harmonic Suppression</td>
<td>10 dB (Typ.)</td>
</tr>
<tr>
<td>Frequency Pulling</td>
<td>3 MHz (Typ. @ 1.75:1 VSWR)</td>
</tr>
<tr>
<td>Frequency Pushing</td>
<td>1 MHz/V (Typ.)</td>
</tr>
<tr>
<td>Tuning Port Capacitance</td>
<td>430 pF (Typ.)</td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz</td>
<td>-112 dBc/Hz (Typ.)</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40 to +85 °C</td>
</tr>
</tbody>
</table>

* Internally regulated

Guaranteed Tuning Specifications

<table>
<thead>
<tr>
<th>Tuning Voltage (V)</th>
<th>Frequency (MHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>110 (Max)</td>
</tr>
<tr>
<td>5</td>
<td>150 (Min)</td>
</tr>
<tr>
<td>8</td>
<td>185 (Min)</td>
</tr>
<tr>
<td>12</td>
<td>230 (Min)</td>
</tr>
<tr>
<td>15</td>
<td>260 (Min)</td>
</tr>
<tr>
<td>18</td>
<td>290 (Min)</td>
</tr>
<tr>
<td>24</td>
<td>330 (Min)</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

| Storage Temp. Range       | -55 to +125 °C |
| Bias Voltage              | +12.5 V        |
| Tuning Voltage            | +28 V          |
| DC Voltage Applied to RF Out | ± 25 V        |
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCMO1129

WIDE BANDWIDTH

110 - 330 MHz

PERFORMANCE PLOTS

OFFSET FREQUENCY (Hz)

OFFSET FREQUENCY (Hz)

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; 5,806,625; 6,850,753; 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; 2,533,623

Pending: 60/493075; 60/501371 & 60/501790; 60/527957 & 60/528670; 60/563481; 60/564173; 60/589090; 60/601823; 60/605791; EV31369834; 11/259766; 60/710310; 10/937525/60/736901; 60/732787; 7,495,525; 2,548,311; 2,548,317; 7,545,229; 7,580,693; 7,612,296; 2,524,751
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCMO1129

WIDE BANDWIDTH
110 - 330 MHz

PERFORMANCE PLOTS

+5 Vdc

+25°C    +85°C    -40°C

+12 Vdc

+25°C    +85°C    -40°C
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCMO1129

WIDE BANDWIDTH

110 - 330 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; 5,650,754; 5,805,431; 6,523,625; 6,850,573;
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; 7,636,021; 2,620,747.

Pending: 60/493075; 60/501371 & 60/527957 & 60/528670; 60/563481; 60/564173; 60/589090; 60/601823; 60/605791; 11/259766; 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; 2,620,747.

Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 USA • Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCMO1129

WIDE BANDWIDTH 110 - 330 MHz

PERFORMANCE PLOTS

1. Control Voltage vs. Tuning Sensitivity (MHz/V) at +5 Vdc:
   - +25°C
   - +85°C
   - -40°C

2. Control Voltage vs. Tuning Sensitivity (MHz/V) at +12 Vdc:
   - +25°C
   - +85°C
   - -40°C

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; 6,523,625; 6,853,573; 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; 60/527957; 60/563481; 60/564173; 60/589090; 60/601823; 60/605791; 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

Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 USA • Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCMO1129

WIDE BANDWIDTH

110 - 330 MHz

PERFORMANCE PLOTS

2nd Harmonic Suppression (dB)

Control Voltage (Vdc)

+25ºC +85ºC -40ºC

+5 Vdc

+12 Vdc

Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 USA • Tel: (973) 881-8600 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com