VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCMO616-5
WIDE BANDWIDTH 65 - 160 MHz

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

SPECIFICATIONS (Rev. D 01/07/10)
Frequency 65 - 160 MHz
Tuning Voltage See table below.
Bias Voltage +5 VDC @ 35 mA (Max.)
Output Power +3 dBm (Min.)
Tuning Sensitivity 3.5 - 7 MHz/V (Typ.)
Output Impedance 50 Ohms (Nom.)
Harmonic Suppression 10 dB (Typ.)
Frequency Pulling 3 MHz (Max. @ 1.75:1 VSWR)
Frequency Pushing 1 MHz/V (Max.)
Tuning Port Capacitance 270 pF (Typ.)
Phase Noise @ 10 kHz -108 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>65 (Max.)</td>
</tr>
<tr>
<td>5</td>
<td>75 (Min.)</td>
</tr>
<tr>
<td>8</td>
<td>90 (Min.)</td>
</tr>
<tr>
<td>12</td>
<td>115 (Min.)</td>
</tr>
<tr>
<td>15</td>
<td>130 (Min.)</td>
</tr>
<tr>
<td>18</td>
<td>145 (Min.)</td>
</tr>
<tr>
<td>24</td>
<td>160 (Min.)</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings
Storage Temp. Range -55 to +125 °C
Bias Voltage +5.5 V
Tuning Voltage +30 V
DC Voltage Applied to RF Out ± 25 V

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; 6,021,625; 6,950,575; 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; 11/259766; 60/622485 & 60/710310; 10/937525/60/736901; 60/732787; 7,495,525; 2,548,311; 2,548,317; 7,495,525; 2,563,174; 7,545,229; 2,524,751

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WIDE BANDWIDTH
65 - 160 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; 5,605,431; 5,623,620; 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; 7,612,296; 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; 11/259766; 60/622485; 60/710310; 10/937525; 60/736901; 60/732787; 7,495,525; 2,548,311; 2,548,317; 7,495,525; 2,563,174; 7,580,693; 7,636,021; 2,533,623

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PERFORMANCE PLOTS

0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00
Tuning Sensitivity (MHz/V)

0 2 4 6 8 10 12 14 16 18 20 22 24
Control Voltage (Vdc)

+25ºC +85ºC -40ºC

-25 -20 -15 -10 -5 0
2nd Harmonic Suppression (dB)

0 2 4 6 8 10 12 14 16 18 20 22 24
Control Voltage (Vdc)

+25ºC +85ºC -40ºC

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