VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCMO2476

WIDE BANDWIDTH

240 - 760 MHz

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

SPECIFICATIONS (Rev. G 08/11/09)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>240 - 760 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 VDC @ 27 mA (Max.)</td>
</tr>
<tr>
<td>Output Power</td>
<td>+4 dBm (Min.)</td>
</tr>
<tr>
<td>Tuning Sensitivity</td>
<td>12 - 34 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 (Max. @ 1.75:1 VSWR)</td>
</tr>
<tr>
<td>Frequency Pushing</td>
<td>1 MHz/V (Max.)</td>
</tr>
<tr>
<td>Tuning Port Capacitance</td>
<td>270 pF (Typ.)</td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz</td>
<td>-108 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>240 (Max.)</td>
</tr>
<tr>
<td>5</td>
<td>295 (Min.)</td>
</tr>
<tr>
<td>8</td>
<td>380 (Min.)</td>
</tr>
<tr>
<td>12</td>
<td>515 (Min.)</td>
</tr>
<tr>
<td>15</td>
<td>595 (Min.)</td>
</tr>
<tr>
<td>18</td>
<td>655 (Min.)</td>
</tr>
<tr>
<td>24</td>
<td>760 (Min.)</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

| Storage Temp. Range | -55 to +125 °C |
| Bias Voltage        | +12.5 V        |
| Tuning Voltage      | +26 V          |
| DC Voltage Applied to RF Out | ± 25 V |
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCMO2476
WIDE BANDWIDTH

240 - 760 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; 6,253,025; 6,260,575; 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; 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; 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; 7,636,021; 2,524,751

204.9MHz 315MHz 402MHz 527.5MHz 614.7MHz 760.2MHz

+5 Vdc

Phase Noise (dBc/Hz)

Offset Frequency (Hz)

-170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 100 1000 10000 100000 1000000 10000000

203MHz 314.4MHz 401MHz 526.8MHz 614.8MHz 760MHz

+12 Vdc

Phase Noise (dBc/Hz)

Offset Frequency (Hz)

-170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 100 1000 10000 100000 1000000 10000000

203MHz 314.4MHz 401MHz 526.8MHz 614.8MHz 760MHz
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240 - 760 MHz

PERFORMANCE PLOTS

+5 Vdc

+25°C  +85°C  -40°C

+12 Vdc

+25°C  +85°C  -40°C
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PERFORMANCE PLOTS

+5 Vdc

+12 Vdc

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

Tuning Sensitivity (MHz/V)

+25ºC  +85ºC  -40ºC

0 5 10 15 20 25 30 35 40

0 2 4 6 8 10 12 14 16 18 20 22 24
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Tuning Sensitivity (MHz/V)

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