VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCRO310430-5

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

SPECIFICATIONS (Rev. G 12/06/18)

Frequency: 3100 - 4300 MHz
Tuning Voltage: See table below.
Bias Voltage: +5 VDC @ 53 mA (Max.)
Output Power: +2 dBm (Min.)
Tuning Sensitivity: 95 - 325 MHz/V (Typ.)
Output Impedance: 50 Ohms (Nom.)
Harmonic Suppression: 15 dB (Typ.)
Frequency Pulling: 12 MHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing: 10 MHz/V (Typ.)
Tuning Port Capacitance: 50 pF (Typ.)
Phase Noise @ 10 kHz: -80 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>3100 (Max.)</td>
</tr>
<tr>
<td>5</td>
<td>3500 (Min.)</td>
</tr>
<tr>
<td>8</td>
<td>3900 (Min.)</td>
</tr>
<tr>
<td>10</td>
<td>4300 (Min.)</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Rating</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>+12 V</td>
</tr>
<tr>
<td>DC Voltage Applied to RF Out</td>
<td>± 25 V</td>
</tr>
</tbody>
</table>

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VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCRO310430-5

OPTIMIZED BANDWIDTH

3100 - 4300 MHz

PERFORMANCE PLOTS

Frequency (MHz)

Control Voltage (Vdc)

Output Power (dBm)

Control Voltage (Vdc)

+25°C +85°C -40°C

0 1 2 3 4 5 6 7 8 9 10

+25°C +85°C -40°C
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OPTIMIZED BANDWIDTH
3100 - 4300 MHz

PERFORMANCE PLOTS

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

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