VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCO170340-5

OPTIMIZED BANDWIDTH
1700 - 3400 MHz

FEATURES:
► Exceptional Phase Noise Performance
► Fast Tuning
► Small Size, Surface Mount

SPECIFICATIONS (Rev C 04/10/14)

Frequency 1700 - 3400 MHz
Tuning Voltage See table below.
Bias Voltage +5 VDC @ 35 mA (Max.)
Output Power 3.5 dBm (Min.)
Tuning Sensitivity 45 - 130 MHz/V (Typ.)
Output Impedance 50 Ohms (Nom.)
Harmonic Suppression 15 dB (Typ.)
Frequency Pulling 15 MHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing 8 MHz/V (Typ.)
Tuning Port Capacitance 72 pF (Typ.)

Typical Phase Noise
Offset dBc/Hz
10 kHz -90
100 kHz -112

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>1700 (Max.)</td>
</tr>
<tr>
<td>5</td>
<td>1880 (Min.)</td>
</tr>
<tr>
<td>8</td>
<td>2230 (Min.)</td>
</tr>
<tr>
<td>12</td>
<td>2660 (Min.)</td>
</tr>
<tr>
<td>15</td>
<td>2940 (Min.)</td>
</tr>
<tr>
<td>18</td>
<td>3150 (Min.)</td>
</tr>
<tr>
<td>24</td>
<td>3400 (Min.)</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</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>+28 V</td>
</tr>
<tr>
<td>DC Voltage Applied to RF Out</td>
<td>± 25 V</td>
</tr>
</tbody>
</table>

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SURFACE MOUNT MODEL: DCO170340-5

OPTIMIZED BANDWIDTH
1700 - 3400 MHz

PERFORMANCE PLOTS

Controls Voltage (Vdc)
Frequency (MHz)
+25ºC +85ºC -40ºC

Control Voltage (Vdc)
Output Power (dBm)
+25ºC +85ºC -40ºC

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SYNERGY®
MICROWAVE CORPORATION
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OPTIMIZED BANDWIDTH
1700 - 3400 MHz

PERFORMANCE PLOTS

Tuning Sensitivity (MHz/V)

Control Voltage (Vdc)

- +25ºC  +85ºC  -40ºC

2nd Harmonic Suppression (dB)

Control Voltage (Vdc)

- +25ºC  +85ºC  -40ºC