VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCO615712-5
OPTIMIZED BANDWIDTH
6150 - 7120 MHz

FEATURES:
- Miniature Size Surface Mount (0.3” x 0.3”)
- Superb Phase Noise Performance
- Planar Resonator Construction

SPECIFICATIONS (Rev. B 04/27/18)

Frequency
6150 - 7120 MHz
Tuning Voltage
See table below.
Bias Voltage
+5 VDC @ 22 mA (Max.)
Output Power
-4 dBm (Min.)
Tuning Sensitivity
55 - 170 MHz/V (Typ.)
Output Impedance
50 Ohms (Nom.)
Harmonic Suppression
25 dB (Typ.)
Frequency Pulling
12 MHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing
12 MHz/V (Typ.)
Tuning Port Capacitance
10 pF (Typ.)

<table>
<thead>
<tr>
<th>Typical Phase Noise</th>
<th>Offset</th>
<th>dBC/Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 kHz</td>
<td>-85</td>
</tr>
<tr>
<td></td>
<td>100 kHz</td>
<td>-106</td>
</tr>
</tbody>
</table>

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>6150 (Max.)</td>
</tr>
<tr>
<td>5</td>
<td>6400 (Min.)</td>
</tr>
<tr>
<td>8</td>
<td>6800 (Min.)</td>
</tr>
<tr>
<td>12</td>
<td>7120 (Min.)</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Storage Temp. Range</th>
<th>-65 to +125 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bias Voltage</td>
<td>+5.5 V</td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>+15 V</td>
</tr>
<tr>
<td>DC Voltage Applied to RF Out</td>
<td>± 25 V</td>
</tr>
</tbody>
</table>
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PERFORMANCE PLOTS

- Frequency (MHz) vs. Control Voltage (Vdc)
- Output Power (dBm) vs. Control Voltage (Vdc)
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SURFACE MOUNT MODEL: DCO615712-5

OPTIMIZED BANDWIDTH 6150 - 7120 MHz

PERFORMANCE PLOTS

Tuning Sensitivity (MHz/V)

Control Voltage (Vdc)

+25ºC  +85ºC  -40ºC

2nd Harmonic Suppression (dB)

Control Voltage (Vdc)

+25ºC  +85ºC  -40ºC