VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: MFC138165-5

OPTIMIZED BANDWIDTH 1380 - 1650 MHz

FEATURES:
► Low Phase Noise Performance
► Fast Tuning
► Ideal for PLL Applications
► Small Size, Surface Mount
► Lead Free Patented REL-PRO® Technology

SPECIFICATIONS (Rev. B 07/03/07)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>1380 - 1650 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuning Voltage</td>
<td>0.5 - 24 VDC</td>
</tr>
<tr>
<td>Bias Voltage</td>
<td>+5 VDC @ &lt;35 mA</td>
</tr>
<tr>
<td>Output Power</td>
<td>+3.5 dBm (Min)</td>
</tr>
<tr>
<td>Tuning Sensitivity</td>
<td>7 - 20 MHz/V (Typ)</td>
</tr>
<tr>
<td>Output Impedance</td>
<td>50 Ohms (Nom)</td>
</tr>
<tr>
<td>Harmonic Suppression</td>
<td>10 dBc (Min)</td>
</tr>
<tr>
<td>Frequency Pulling</td>
<td>5 MHz (Typ @ 1.75:1 VSWR)</td>
</tr>
<tr>
<td>Frequency Pushing</td>
<td>2 MHz/V (Typ)</td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz</td>
<td>-102 dBC/Hz (Typ)</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40 to 85 °C</td>
</tr>
</tbody>
</table>

Guaranteed Tuning Specifications

<table>
<thead>
<tr>
<th>Tuning Voltage (V)</th>
<th>Frequency (MHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>1380 (Max)</td>
</tr>
<tr>
<td>5</td>
<td>1410 (Min)</td>
</tr>
<tr>
<td>8</td>
<td>1450 (Min)</td>
</tr>
<tr>
<td>12</td>
<td>1515 (Min)</td>
</tr>
<tr>
<td>15</td>
<td>1570 (Min)</td>
</tr>
<tr>
<td>18</td>
<td>1600 (Min)</td>
</tr>
<tr>
<td>24</td>
<td>1650 (Min)</td>
</tr>
</tbody>
</table>

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; 6,525,623; 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

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201 McLean Boulevard • Paterson, New Jersey 07504 USA • Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • World Wide Web: http://www.synergymwave.com
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: MFC138165-5

OPTIMIZED BANDWIDTH

1380 - 1650 MHz

PERFORMANCE PLOTS

- +25°C
- +85°C
- -40°C
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: MFC138165-5

OPTIMIZED BANDWIDTH

1380 - 1650 MHz

PERFORMANCE PLOTS

Control Voltage (Vdc)

Tuning Sensitivity (MHz/V)

Control Voltage (Vdc)

2nd Harmonic Suppression (dBc)

+25°C  +85°C  -40°C

+25°C  +85°C  -40°C