Model CVCSO-914M3 is a voltage-controlled SAW (surface acoustic wave) Oscillator (VCSO). SAW crystal technology provides low-noise and low-jitter performance with true sinewave output. Features include -135 dBC/Hz phase noise at 10 kHz offset, 3.3V input voltage, -20°C to +70°C operating temperature, and 9×14 mm SMT package. The oscillator has no sub-harmonic and the second harmonic is typically -20 dBC.

Applications include PLL frequency translation, test and measurement, avionics, point-to-point radios, and multi-point radios.
Ultra-Low Phase Noise
True SineWave
SAW Based VCSO

CVCSO-914M3 Model
9×14 mm SMD, 3.3V, SineWave

Frequency Range: 250 MHz to 1000 MHz
Temperature Range: -20°C to +70°C
Storage: -40°C to 90°C
Input Voltage: 3.3V ±5%
Control Voltage Range: 0V to 3.3V
Settability At Nominal (25°C): +0.5V to 2.0V
Frequency vs Temperature: ±200ppm Typical
Tuning Sensitivity (Kv): +120ppm/V Typical
Input Current: 25mA Typical, 35mA Max

Output:
- True SineWave
- Pullability APR: ±50ppm Min
- Linearity: ±20% Max
- Output Power: +8dBm Min into 50 Ω Load
- Start-Up Time: 2mSec Typical, 10mSec Max
- 2nd Harmonic: -20dBc Typical, -15dBc Max
- Sub-Harmonics: None
- Modulation BW: >20kHz @ -3dB
- Phase Jitter: 12kHz~80MHz
- Phase Noise (Typical):
  - 1kHz: -105 dBc/Hz
  - 10kHz: -135 dBc/Hz
  - 100kHz: -145 dBc/Hz
  - 1MHz: -160 dBc/Hz
  - 10MHz: -170 dBc/Hz
- G-sensitivity: 0.9×10⁻⁹ per g

PAD FINISH: Immersion Gold (ENIG); 5 micro inches maximum

PAD LAYOUT

<table>
<thead>
<tr>
<th>Pad</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Volt. Control</td>
</tr>
<tr>
<td>2</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td>Output</td>
</tr>
<tr>
<td>4</td>
<td>Vdd</td>
</tr>
</tbody>
</table>

Table A

<table>
<thead>
<tr>
<th>Package Height Options (Max)</th>
<th>inches</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>0.210</td>
<td>5.33</td>
</tr>
<tr>
<td>Option L</td>
<td>0.135</td>
<td>3.43</td>
</tr>
</tbody>
</table>

Date Code

See Table A

0.050 ±0.005 (1.27)
0.040 ±0.005 (1.01)
0.040 ±0.005 (1.01)
0.090 ±0.005 (2.29)
0.090 ±0.005 (2.29)
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