Ultra-Low Phase Noise SineWave VCXO

CVSS-945 Model
9x14 mm SMD, 5.0V, SineWave

- Frequency Range: 10 MHz to 125 MHz
- Temperature Range: 0°C to 70°C
  (Option X)
  -40°C to 85°C
- Storage: -45°C to 90°C
- Input Voltage: 5.0V ± 0.5V
- Control Voltage: 2.5V ± 2.5V
- Settability At Nominal: 2.5V ± 0.5V
- Tuning Sensitivity (Kv): +25 ppm/V Typical (Positive Slope)
- Input Current: 35mA Max
- Output: True SineWave
  - Pullability APR: ±20ppm Min
  - Linearity: ±10% Max
  - Output Power: +5 dBm Min, +7 dBm Typical
  - Start-up time: 2ms Typical, 5ms Max
  - Load: 50 Ω
- 2nd Harmonic: -25 dBC Typical
- Sub-harmonics: None
- Modulation BW: >10kHz @ -3dB
- Phase Noise Typical:
  - 10Hz (@100MHz) -85 dBC/Hz
  - 100Hz -120 dBC/Hz
  - 1kHz -145 dBC/Hz
  - 10kHz -162 dBC/Hz
  - 100kHz -170 dBC/Hz
  - 1MHz -170 dBC/Hz
- Aging: <3ppm 1st year, <1ppm every year thereafter

### Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Rating</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Supply Voltage</td>
<td>+6.0</td>
<td>V</td>
</tr>
<tr>
<td>Input Control Voltage</td>
<td>+10.0</td>
<td>V</td>
</tr>
</tbody>
</table>

Specifications subject to change without notice.
CVSS-945 Model
9×14 mm SMD, 5.0V, SineWave

50 MHz

100 MHz

Rev: P
Date: 28-Mar-2018
Page 2 of 3
Ultra-Low Phase Noise
SineWave VCXO

**CVSS-945 Model**
9×14 mm SMD, 5.0V, SineWave

---

**Crystek Part Number Guide**

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

**SUGGESTED PAD LAYOUT**

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

**Mechanical:**

- Vibration: MIL-STD-883, Method 2007, Condition A
- Resistance to Soldering Heat: MIL-STD-202, Method 210, Condition I or J

**Environmental:**

- Thermal Shock: MIL-STD-883, Method 1011, Condition A

**Packaging:**

- Tape/Reel: 100ea, 250ea, 500ea  24mm Tape

---

**Standard Frequencies MHz**

- 10.000
- 50.000
- 80.000
- 100.000
- 122.880
- 125.000

**RECOMMENDED REFLOW SOLDERING PROFILE**

900034 (See App Note listed on website)


---

**Date:** 28-Mar-2018

Page 3 of 3