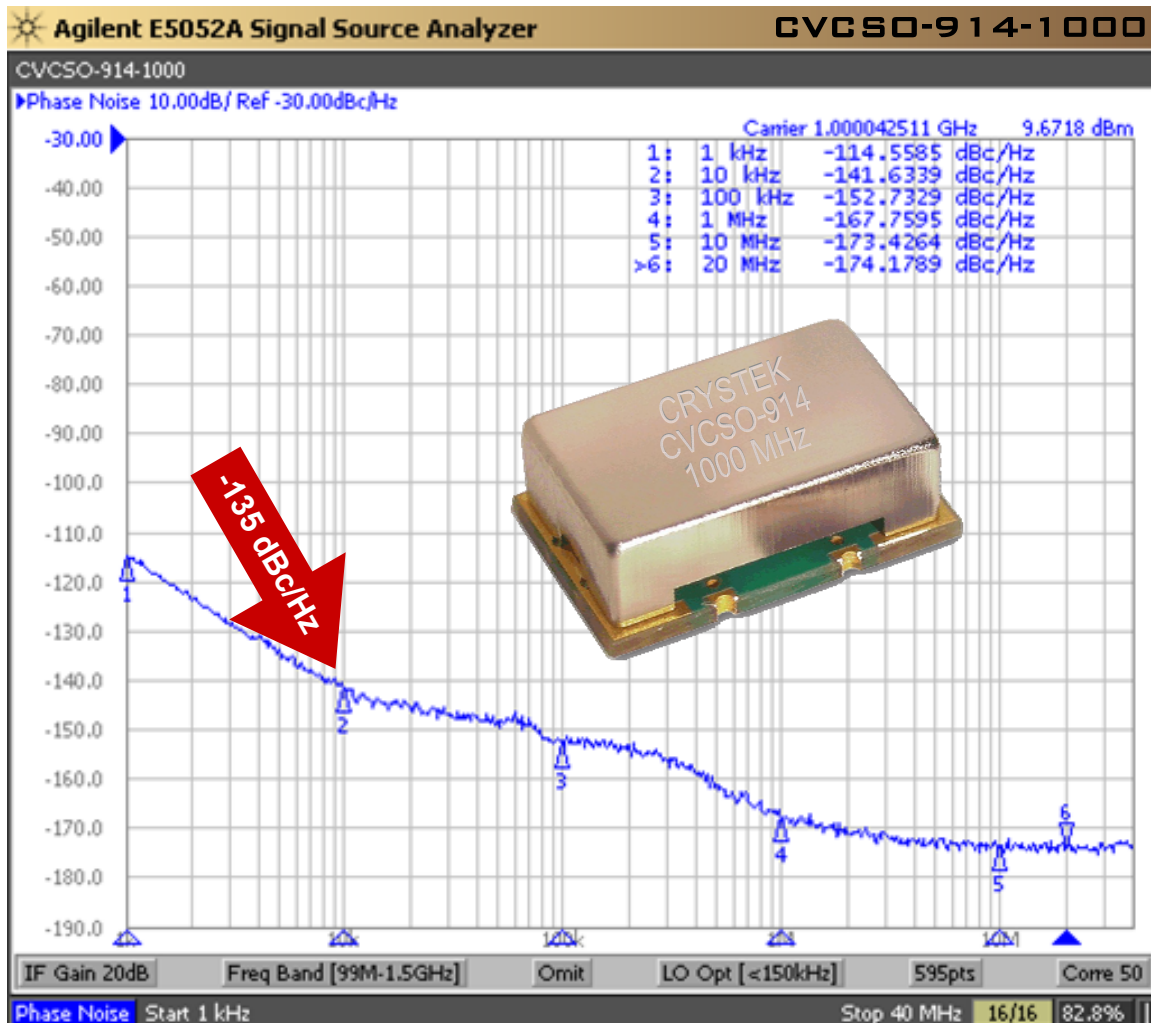


*Ultra-Low Phase Noise 1GHz SAW VCSO*



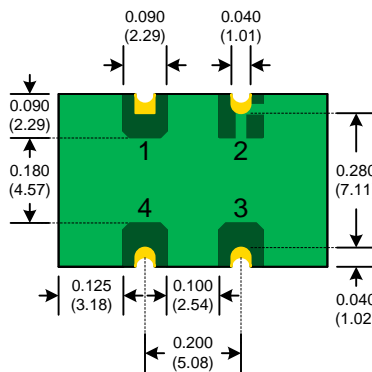
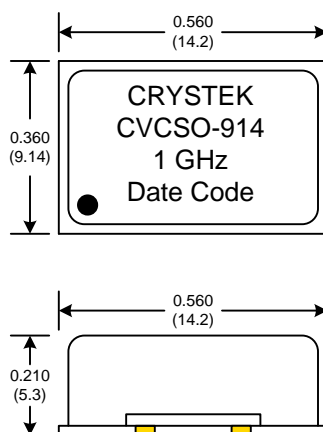
Model CVCSO-914-1000 is a 1 GHz voltage-controlled SAW (surface acoustic wave) Clock Oscillator (VCSO). SAW crystal technology provides low-noise and low-jitter performance with true sinewave output. Features include -135 dBc/Hz phase noise at 10 kHz offset, 5V input voltage, -20°C to +70°C operating 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.

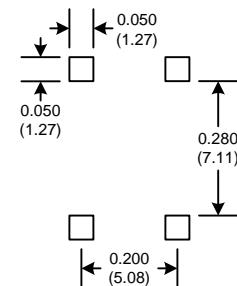
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<b>Frequency:</b>	<b>1 GHz</b>
<b>Temperature Range:</b>	<b>-20°C to +70°C</b>
<b>Storage:</b>	<b>-40°C to 90°C</b>
<b>Input Voltage:</b>	<b>5.0V ±0.25V</b>
<b>Control Voltage Range:</b>	<b>0V to 5.0V</b>
<b>Settability At Nominal (25°C):</b>	<b>1.5V ±0.5V</b>
<b>Tuning Sensitivity (Kv):</b>	<b>+120ppm/V</b>
<b>Frequency vs Temperature:</b>	<b>±100ppm Typical</b>
<b>Input Current:</b>	<b>25mA Typical, 35mA Max</b>
<b>Output:</b>	<b>True SineWave</b>
<b>Pullability APR:</b>	<b>±50ppm Min</b>
<b>Linearity:</b>	<b>±20% Max</b>
<b>Output Power:</b>	<b>+10dBm Min into 50 Ω Load</b>
<b>Start-Up Time:</b>	<b>2mSec Typical, 10mSec Max</b>
<b>2<sup>nd</sup> Harmonic:</b>	<b>-20dBc Typical, -15dBc Max</b>
<b>Sub-Harmonics:</b>	<b>None</b>
<b>Modulation BW:</b>	<b>&gt;20kHz @ -3dB</b>
<b>Phase Jitter: 12kHz~80MHz</b>	<b>&lt;1ps RMS (1-sigma) Max</b>
<b>G-sensitivity:</b>	<b>0.9×10<sup>-9</sup> per g</b>

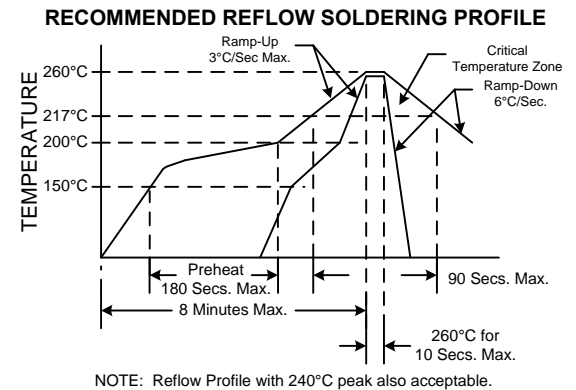
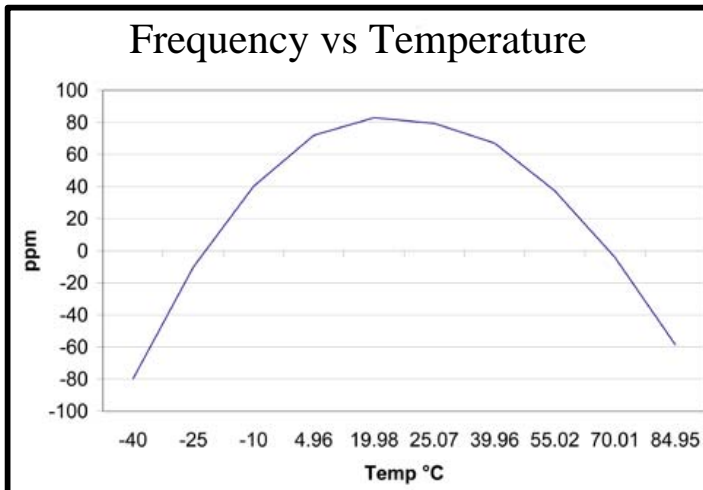
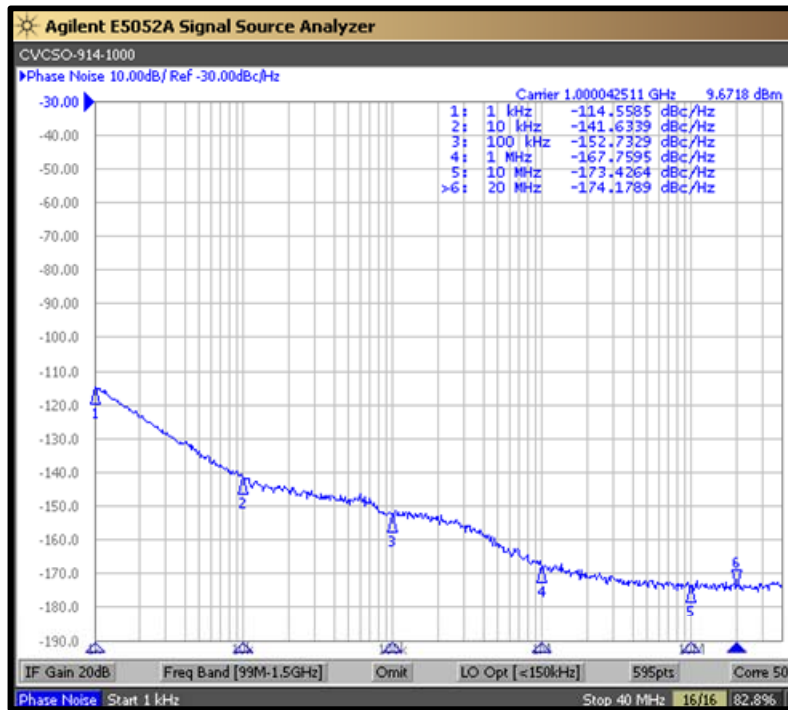


SUGGESTED PAD LAYOUT



Pad	Connection
1	Volt. Control
2	GND
3	Output
4	Vdd

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Parameter	Conditions
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Mechanical Vibration	MIL-STD-883, Method 2007, Condition A
Solderability	MIL-STD-883, Method 2003
Solvent Resistance	MIL-STD-202, Method 215
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition I or J
Thermal Shock	MIL-STD-883, Method 1011, Condition A
Moisture Resistance	MIL-STD-883, Method 1004

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