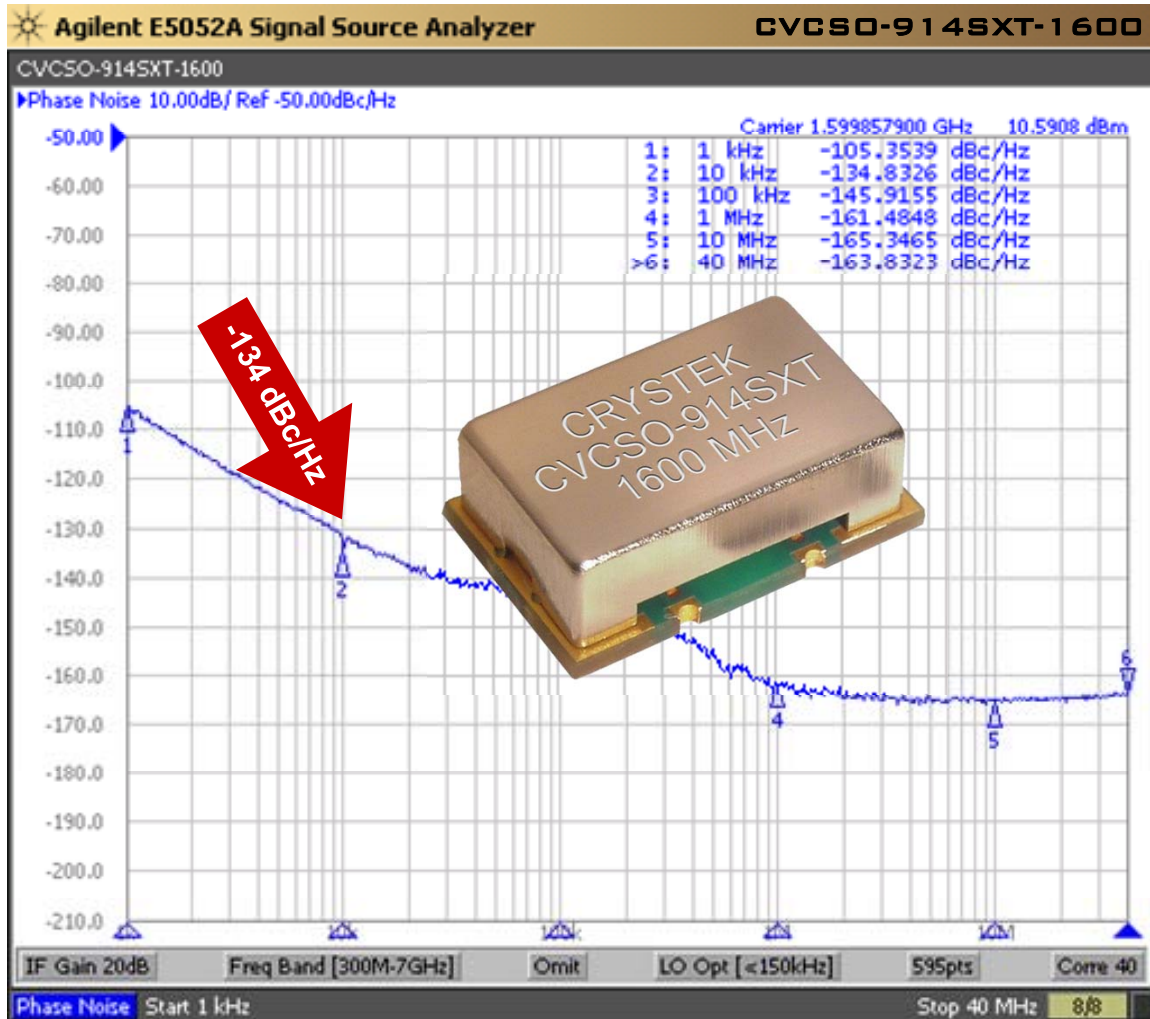


# Ultra-Low Phase Noise Frequency Doubling SAW Based VCISO

**CVCSO-914SXT Model**  
9×14 mm SMD, 5.0V, SineWave



Model CVCSO-914SXT is a voltage-controlled SAW (surface acoustic wave) Clock Oscillator (VCISO). SAW crystal technology provides low-noise and low-jitter performance with true sinewave output. Features include -133 dBc/Hz phase noise at 10 kHz offset at 1.6 GHz, 5V input voltage, -20°C to +70°C operating temperature, and 9×14 mm SMT package. The oscillator's second harmonic is typically -20 dBc.

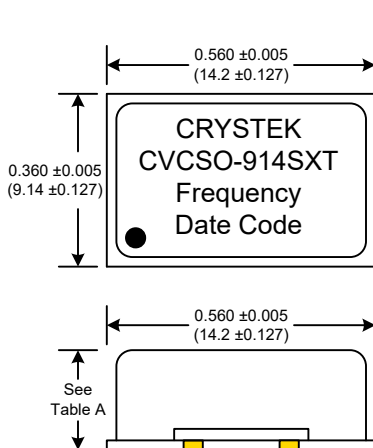
Applications include PLL frequency translation, test and measurement, avionics, point-to-point radios, and multi-point radios.

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# Ultra-Low Phase Noise Frequency Doubling SAW Based VCSO

**CVCSO-914SXT Model**  
9×14 mm SMD, 5.0V, SineWave

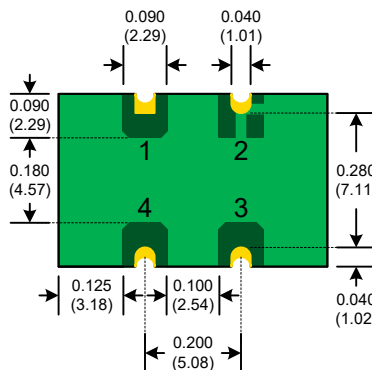
<b>Frequency Range:</b>	<b>1244.160 MHz to 2000 MHz</b>
<b>Temperature Range:</b>	<b>-20°C to +70°C (standard)</b>
<b>(Option I):</b>	<b>0°C to 85°C</b>
<b>Storage:</b>	<b>-40°C to 90°C</b>
<b>Input Voltage:</b>	<b>5.0V ±0.25V</b>
<b>Control Voltage Range:</b>	<b>0V to 5.0V</b>
<b>Tuning Sensitivity (Kv):</b>	<b>+120 ppm/V Typical</b>
<b>Settability At Nominal (25°C):</b>	<b>1.5V +0.5V -1.0V</b>
<b>Frequency vs Temperature:</b>	<b>±200ppm Typical</b>
<b>Input Current:</b>	<b>60mA Typical, 70mA 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>+8dBm Min into 50 Ω Load</b>
<b>Start-Up Time:</b>	<b>2ms Typical, 10ms Max</b>
<b>2<sup>nd</sup> Harmonic:</b>	<b>-20dBc Typical</b>
<b>(Nominal Frequency)/2:</b>	<b>-15dBc Max</b>
<b>Modulation BW:</b>	<b>&gt;20kHz @ -3dB</b>
<b>G-sensitivity:</b>	<b>0.9×10<sup>-9</sup> per G</b>
<b>Weight:</b>	<b>0.816 g</b>



Package Height Options (Max)

	inches	mm
Standard	0.210	5.33
Option L	0.135	3.43

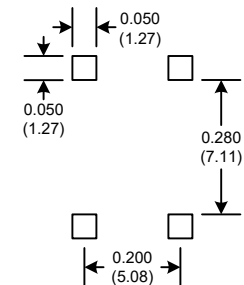
Table A



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

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

**SUGGESTED PAD LAYOUT**



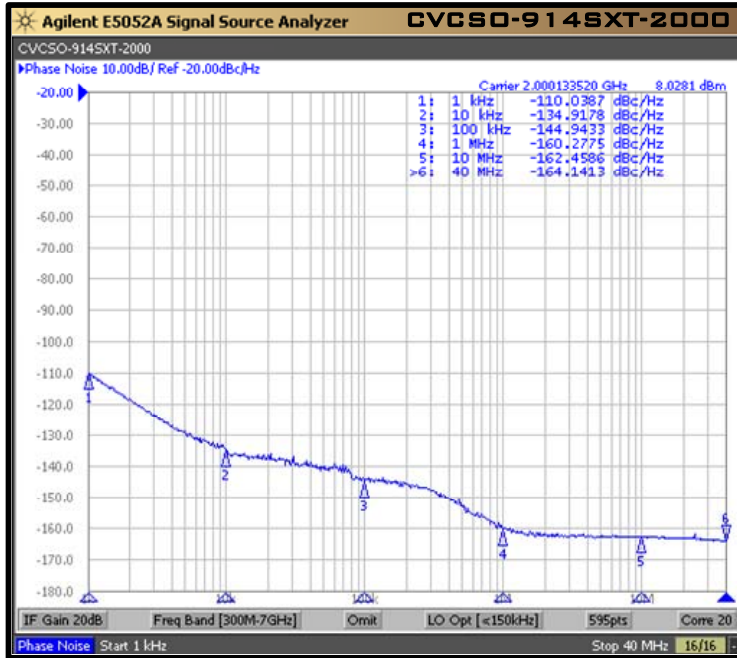
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# Ultra-Low Phase Noise Frequency Doubling SAW Based VCSO

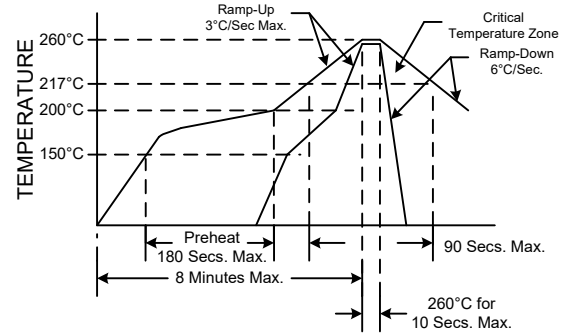
**CVCSO-914SXT Model**  
9x14 mm SMD, 5.0V, SineWave

Available Frequencies (MHz):  
1244.160  
1500  
1600  
2000



Custom Frequencies Available with NRE Fee

### RECOMMENDED REFLOW SOLDERING PROFILE



NOTE: Reflow Profile with 240°C peak also acceptable.

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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