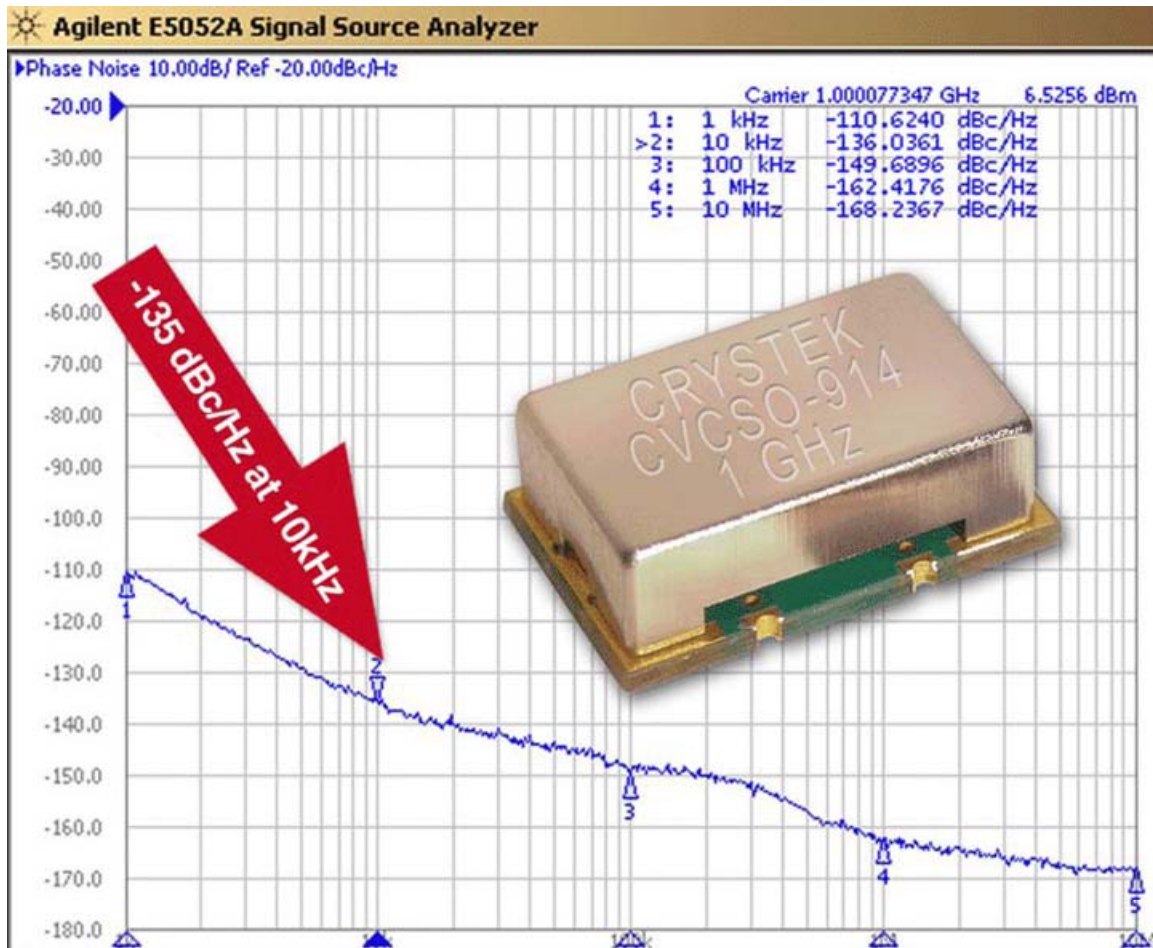


Ultra-Low Phase Noise 1GHz SAW VCSO



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.

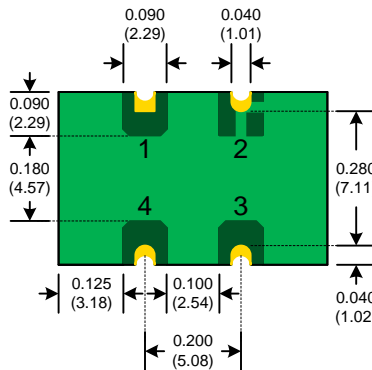
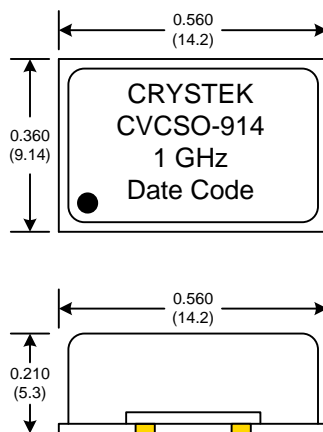
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Frequency: 1 GHz
Temperature Range: -20°C to +70°C
Storage: -40°C to 90°C
Input Voltage: 5.0V ±0.25V
Control Voltage: 2.5V ±2.5V
Settability At Nominal (25°C): 1.5V ±0.5V
Frequency vs Temperature: ±200ppm Typical
Input Current: 25mA Typical, 35mA Max

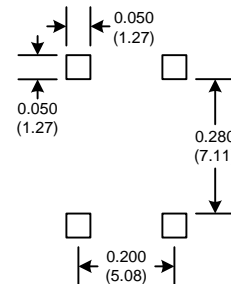
Output: True SineWave
Pullability APR: ±50ppm Min
Linearity: ±20% Max
Output Power: +10dBm Min into 50 Ω Load
Start-Up Time: 2mSec Typical, 10mSec Max
2nd Harmonic: -20dBc Typical, -15dBc Max
Sub-Harmonics: None
Modulation BW: >20kHz @ -3dB
Phase Jitter: 12kHz~80MHz <1ps RMS (1-sigma) Max

G-sensitivity: 0.9×10⁻⁹ per g

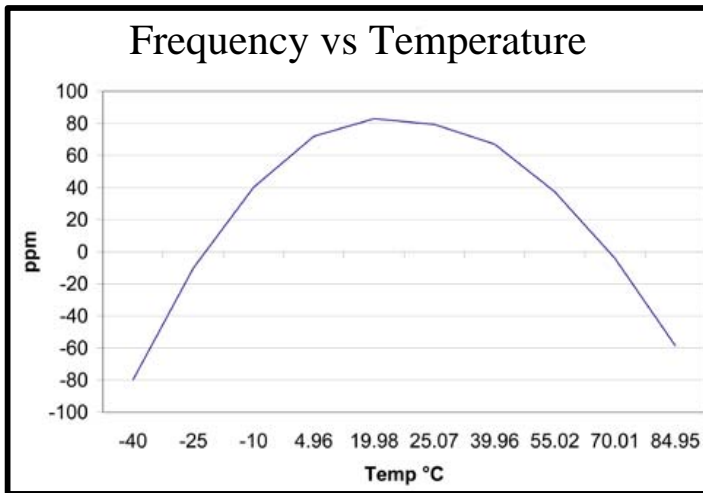
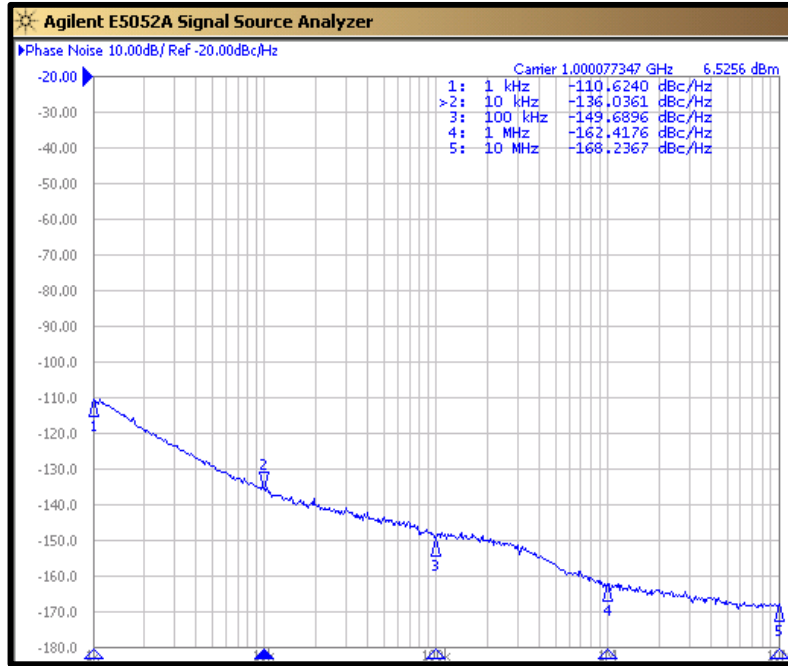


Pad	Connection
1	Volt. Control
2	GND
3	Output
4	Vdd

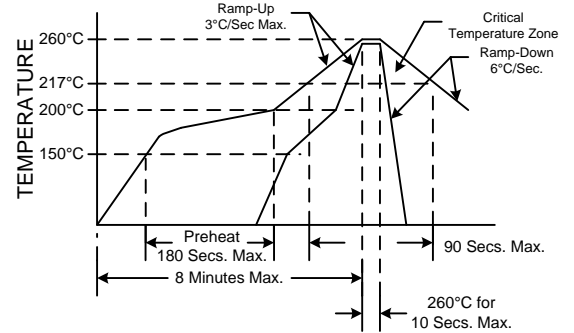
SUGGESTED PAD LAYOUT



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RECOMMENDED REFLOW SOLDERING PROFILE



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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