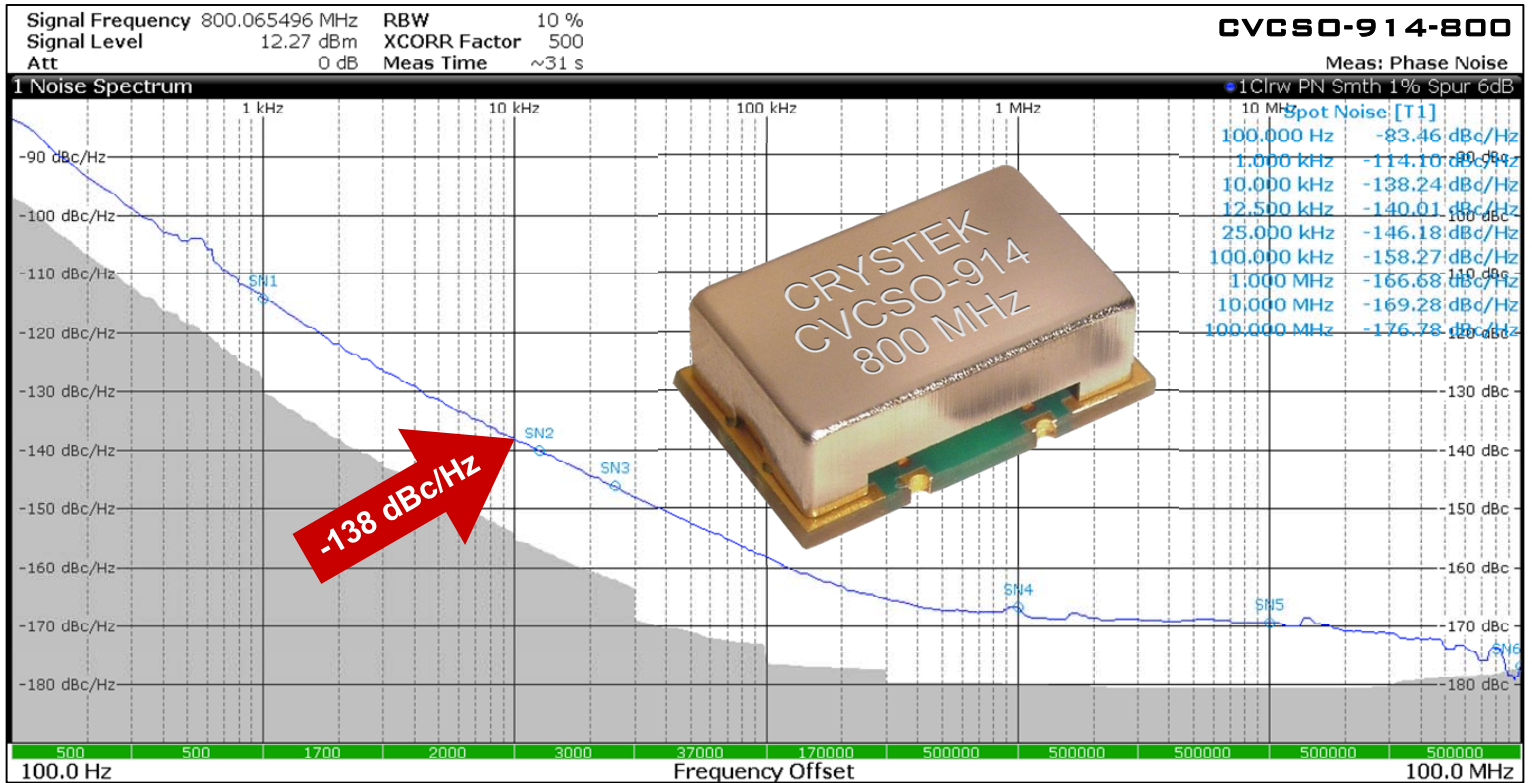


Ultra-Low Phase Noise True Sine Wave SAW Based VCISO

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



Model CVCSO-914 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 -135 dBc/Hz phase noise at 10 kHz offset at 1 GHz, 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.

Rev: V
Date: 27-Aug-2019
Page 1 of 4

Ultra-Low Phase Noise True Sine Wave SAW Based VCISO

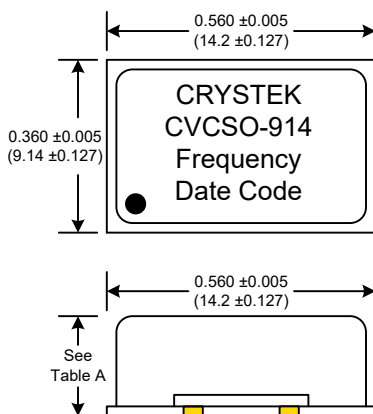
CVCSO-914 Model
9×14 mm SMD, 5.0V, SineWave

Frequency Range:	245.760 MHz to 1000 MHz
Temperature Range:	0°C to +70°C
CVCSO-914A option	0°C to +50°C
CVCSO-914M option	-20°C to +70°C
CVCSO-914X option	-40°C to +85°C
Storage:	-40°C to 90°C
Input Voltage:	5.0V ±0.25V
Control Voltage Range:	0V to 5.0V
Tuning Sensitivity (Kv):	+120 ppm/V Typical
Settability At Nominal (25°C):	1.5V +0.5V -1.0V
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:	2ms Typical, 10ms Max
2nd Harmonic:	-20dBc Typical, -15dBc Max
Sub-Harmonics:	None
Modulation BW:	>20kHz @ -3dB

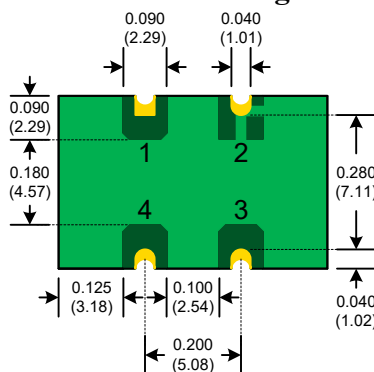
G-sensitivity: **0.9×10⁻⁹ per G**
Weight: **0.816 g**



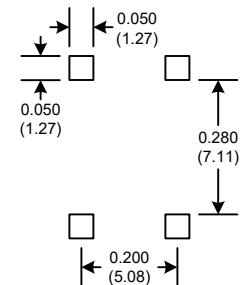
Package Height Options (Max)

	inches	mm
Standard	0.210	5.33
Option L	0.135	3.43

Table A



SUGGESTED PAD LAYOUT



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

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

Rev: V
Date: 27-Aug-2019
Page 2 of 4



Ultra-Low Phase Noise True Sine Wave SAW Based VCISO

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

Crystek Part Number Guide

CVCSO - 914 X L - 640.000

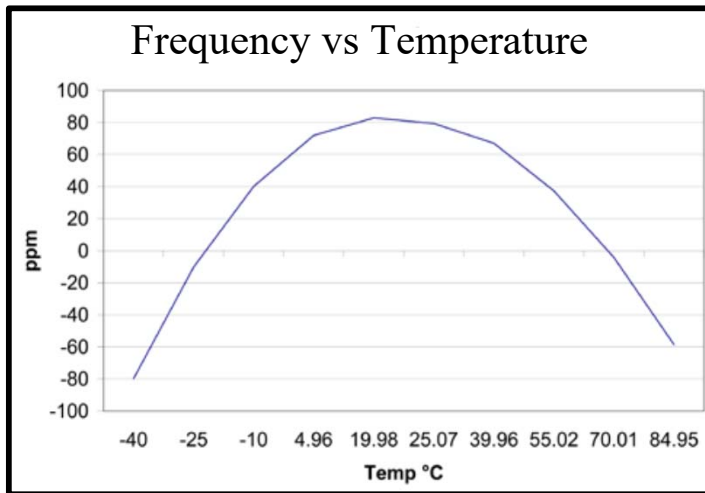
#1 #2 #3 #4 #5

- #1 Crystek Saw Voltage Controlled Oscillator
- #2 Model 914
- #3 Temperature Range (X = -40/85°C) (M = -20/70°C)
(Blank = 0/70°C)
- #4 Height (L = 0.135") (Blank = 0.210")
- #5 Frequency in MHz: 3 or 6 decimal places

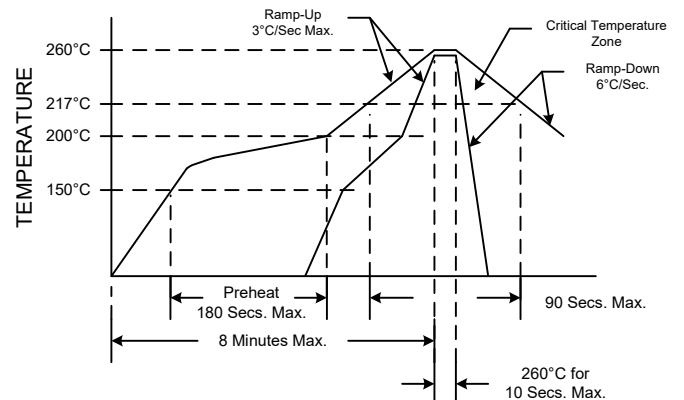
Available Frequencies (MHz):

245.760	840.000
250.000	916.000
640.000	1000.000
800.000	

Custom Frequencies Available with NRE Fee



RECOMMENDED REFLOW SOLDERING PROFILE



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

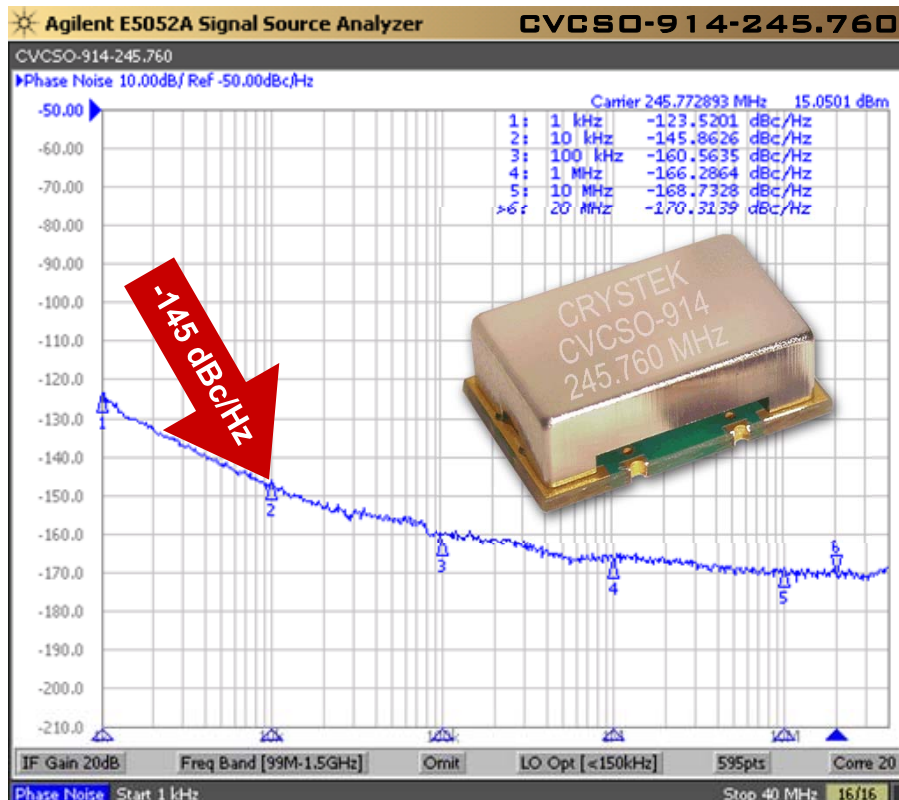
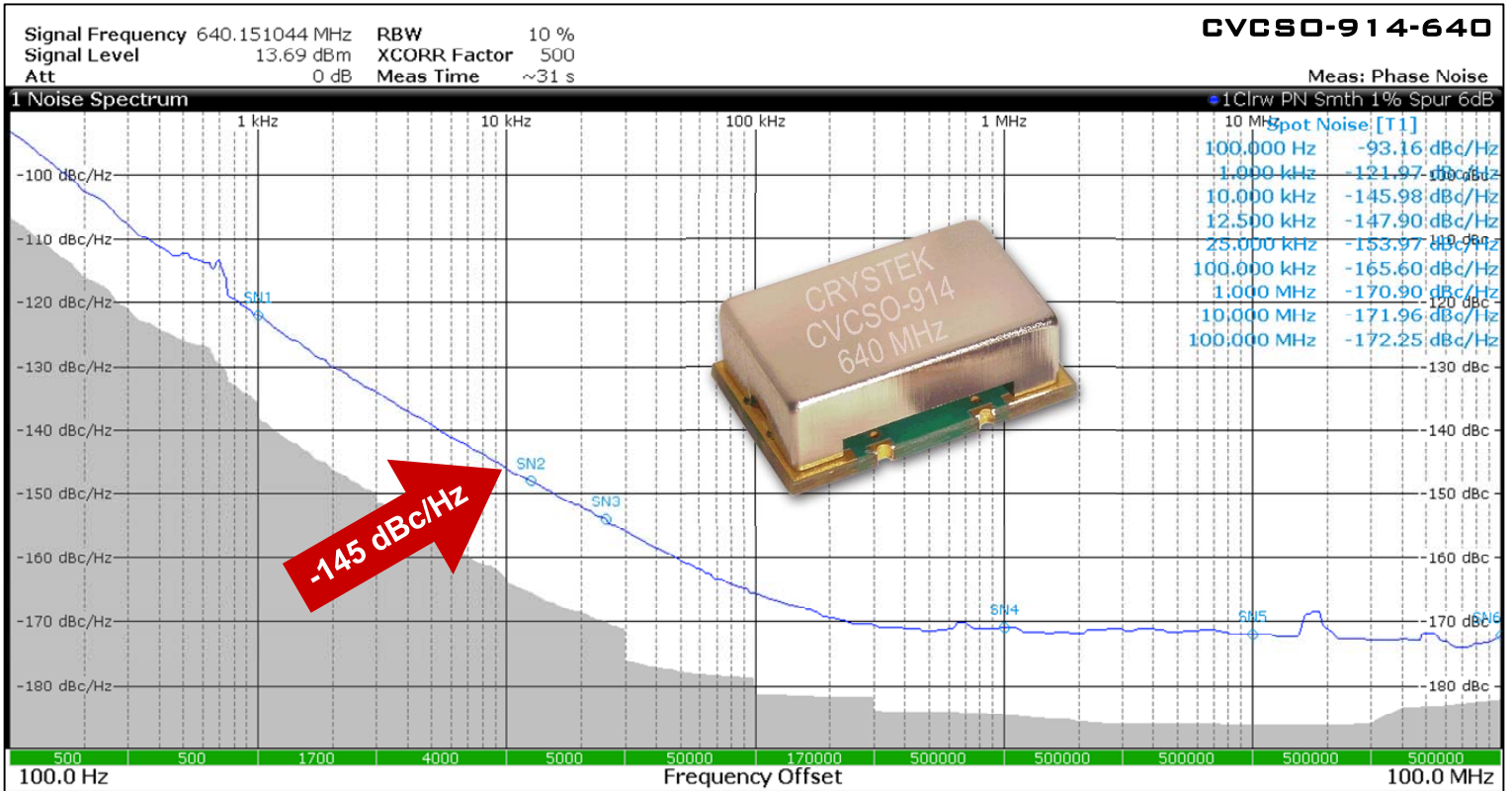
Parameter	Conditions
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Mechanical Vibration	MIL-STD-883, Method 2007, Condition A
Solderability	MIL-STD-883, Method 2003
Solvent Resistance	MIL-STD-202, Method 215
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition I or J
Thermal Shock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

Rev: V
Date: 27-Aug-2019
Page 3 of 4

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Ultra-Low Phase Noise True SineWave SAW Based VCISO

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Rev: V
Date: 27-Aug-2019
Page 4 of 4