

Ultra-Low Phase Noise SAW Clock

Frequency Range:

245.760 MHz to 1090 MHz



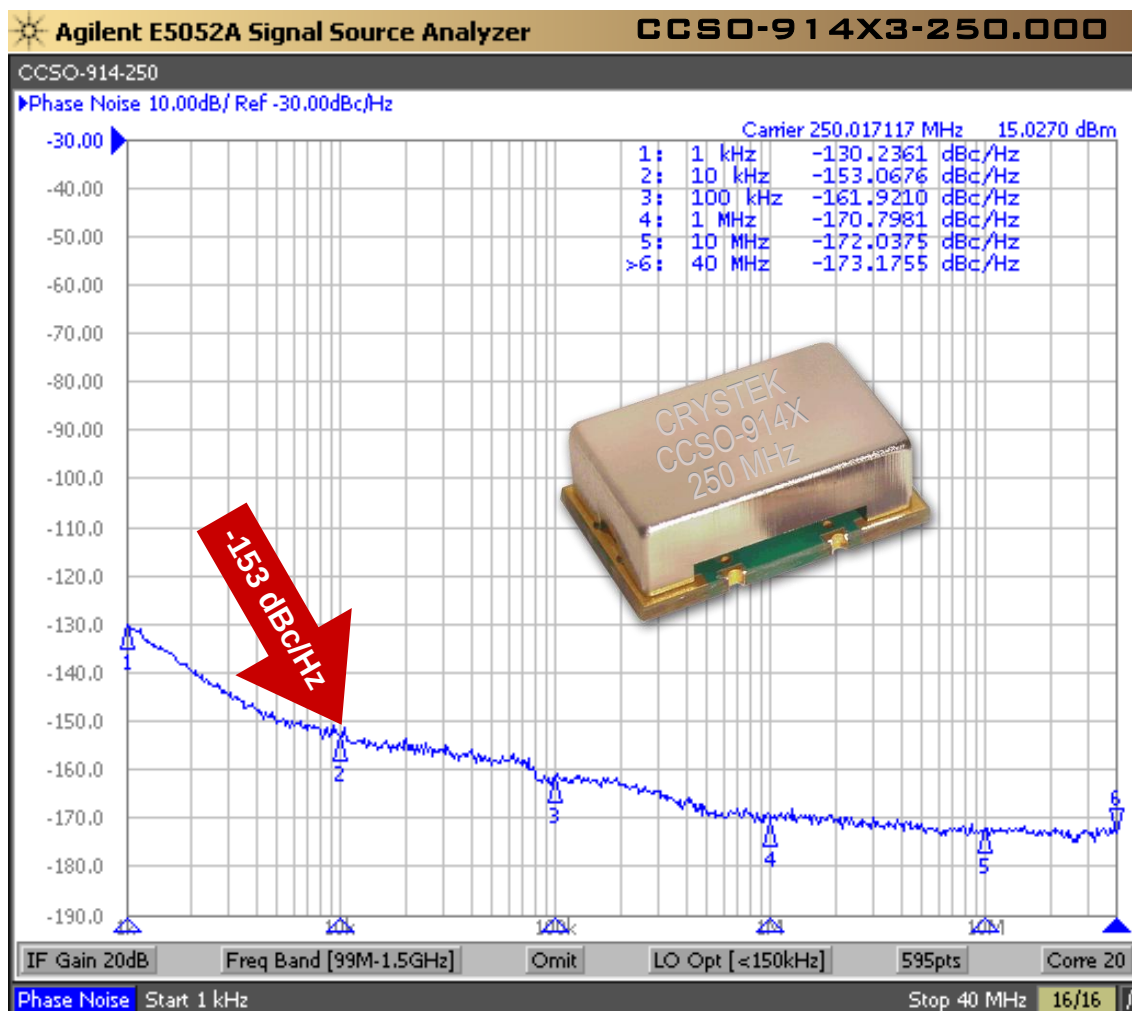
CCSO-914X

True SineWave

SAW Based Clock Oscillator

9×14mm SMD

3.3 & 5.0 Volt



Model CCSO-914X is a SAW (surface acoustic wave) Clock Oscillator (CCSO). SAW crystal technology provides low-noise and low-jitter performance with true sinewave output. Features include -138 dBc/Hz phase noise at 10 kHz offset at 1 GHz, 3.3V & 5V input voltage available, -40°C to +85°C operating temperature, FR5 PCB and 9×14 mm SMT package. The oscillator has no sub-harmonic and the second harmonic is typically -20 dBc.

Applications include:

Analog to Digital Converters (A/D Converters), System Clock for Network Clock Generator/ Synchronizer, Clock for DDS, Test and Measurement, Avionics, Point-to-Point Radios, and Multi-point Radios.

Rev: M

Date: 14-Aug-2014

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CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

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9×14mm SMD
3.3 & 5.0 Volt



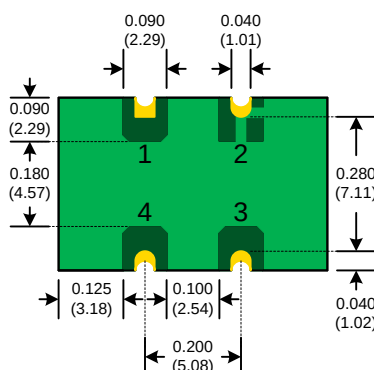
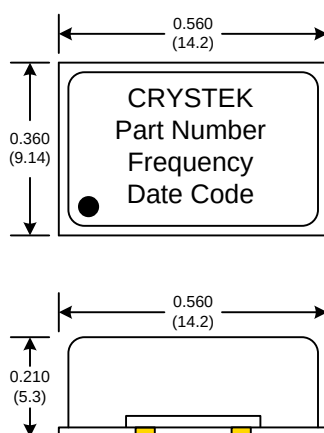
Frequency Range: 245.760 MHz to 1090 MHz
Temperature Range: -40°C to +85°C
Storage: -45°C to 90°C
Input Voltage: (option 3) 3.3V ± 0.165V
(standard) 5.0V ± 0.25V
Frequency vs Temperature: ±150ppm Typical
Input Current: 25mA Typical, 35mA Max
Output: True SineWave
Output Power: +8dBm Min. into 50 Ω Load
Start-Up Time: 2mSec Typical, 10mSec Max
2nd Harmonic: -20dBc Typical, -15dBc Max
Sub-Harmonics: None



Phase Noise Typical @ 1 GHz:

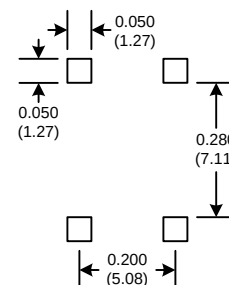
1kHz -110 dBc/Hz
10kHz -138 dBc/Hz
100kHz -150 dBc/Hz
1MHz -160 dBc/Hz
10MHz -170 dBc/Hz

G-sensitivity: 0.9×10^{-9} per g



Pad	Connection
1	N/C
2	GND
3	Output
4	Vdd

SUGGESTED PAD LAYOUT



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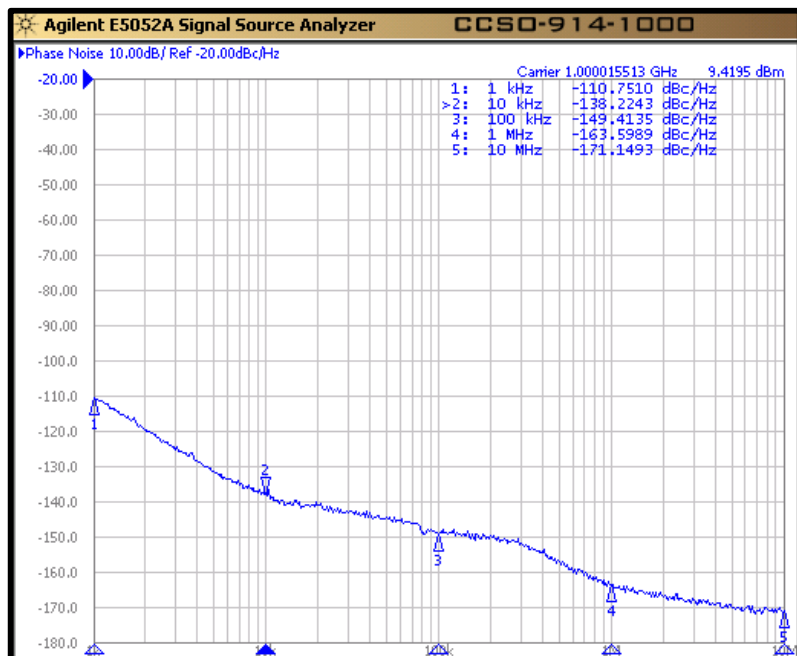


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Available Frequencies (MHz):

245.760	800.000
250.000	916.000
433.920	1000.000
500.000	1090.000
622.080	

Custom Frequencies Available with NRE Fee

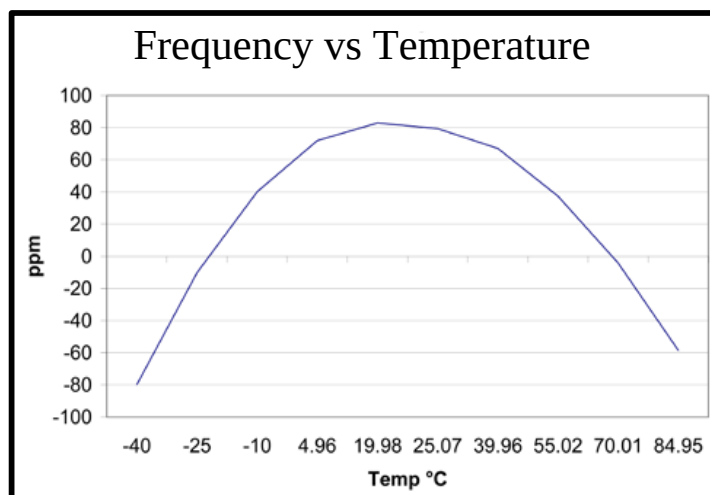
Crystek Part Number Guide

CCSO - 914X3 - 315.500

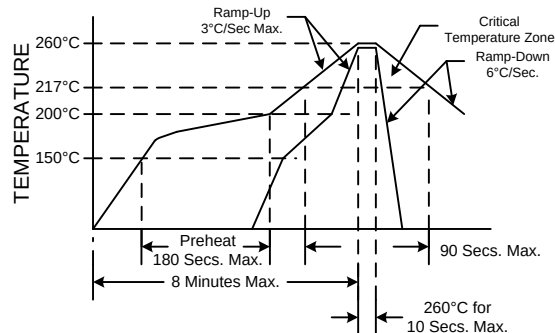
#1 #2 #3 #4

- #1 Crystek Saw Osc.
- #2 Model 914 with -40/85°C Temperature Range
- #3 (3 = 3.3Volts) (Blank = 5 Volts)
- #4 Frequency in MHz: 3 or 6 decimal places

Similar Product in 5×7.5mm Package
[Click Here](#)



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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PHONE: 239-561-3311 • 800-237-3061
FAX: 239-561-1025 • WWW.CRYSTEK.COM



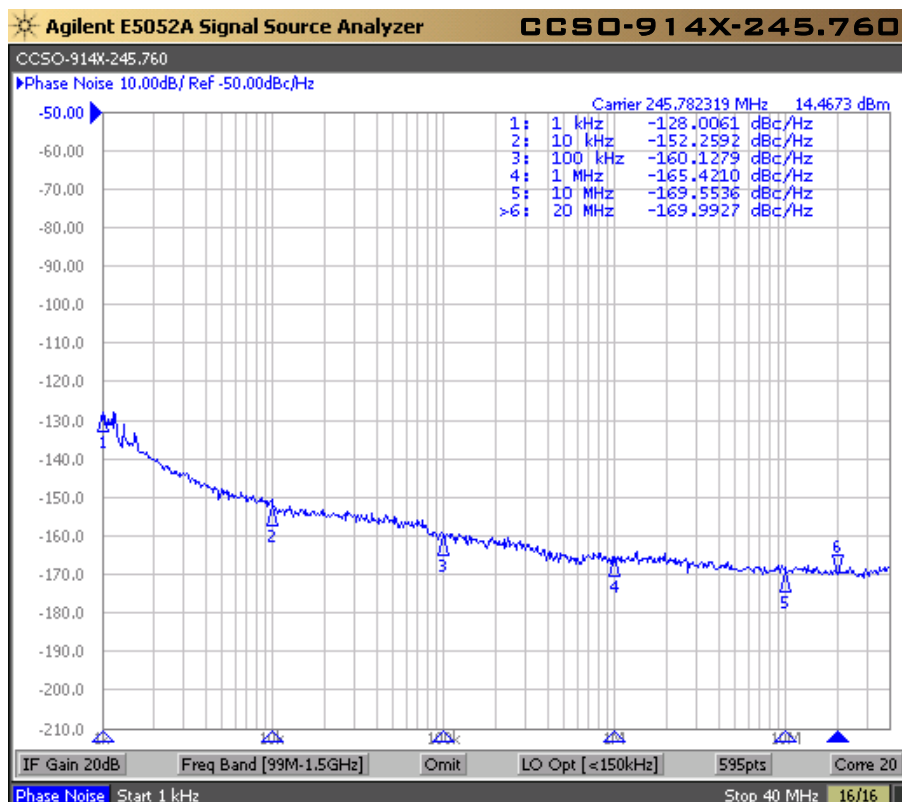
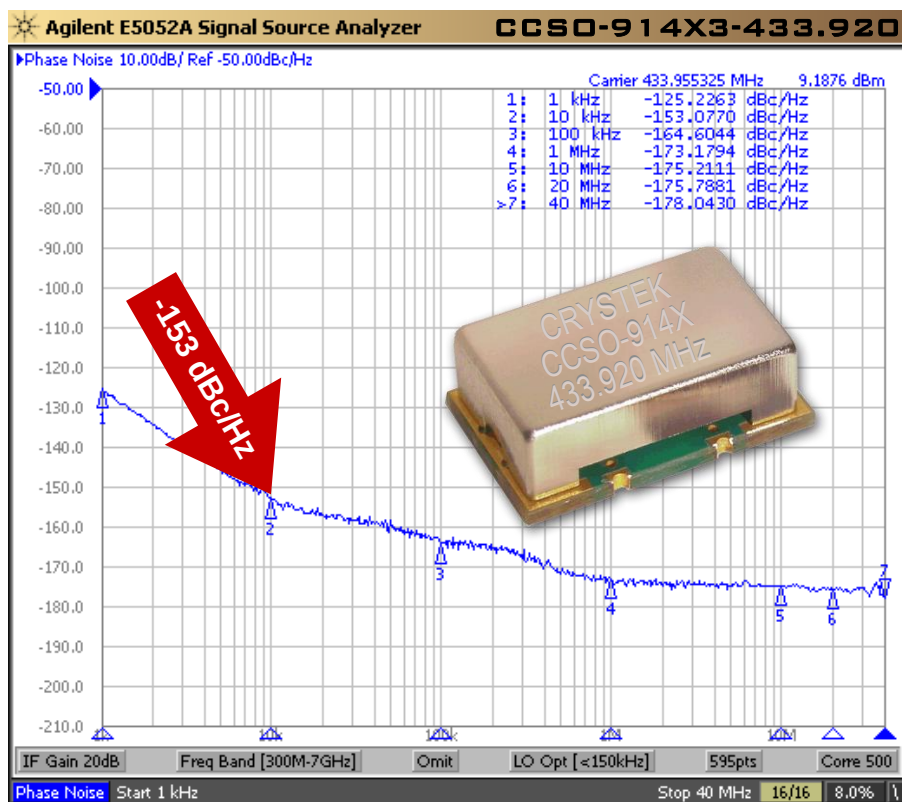
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