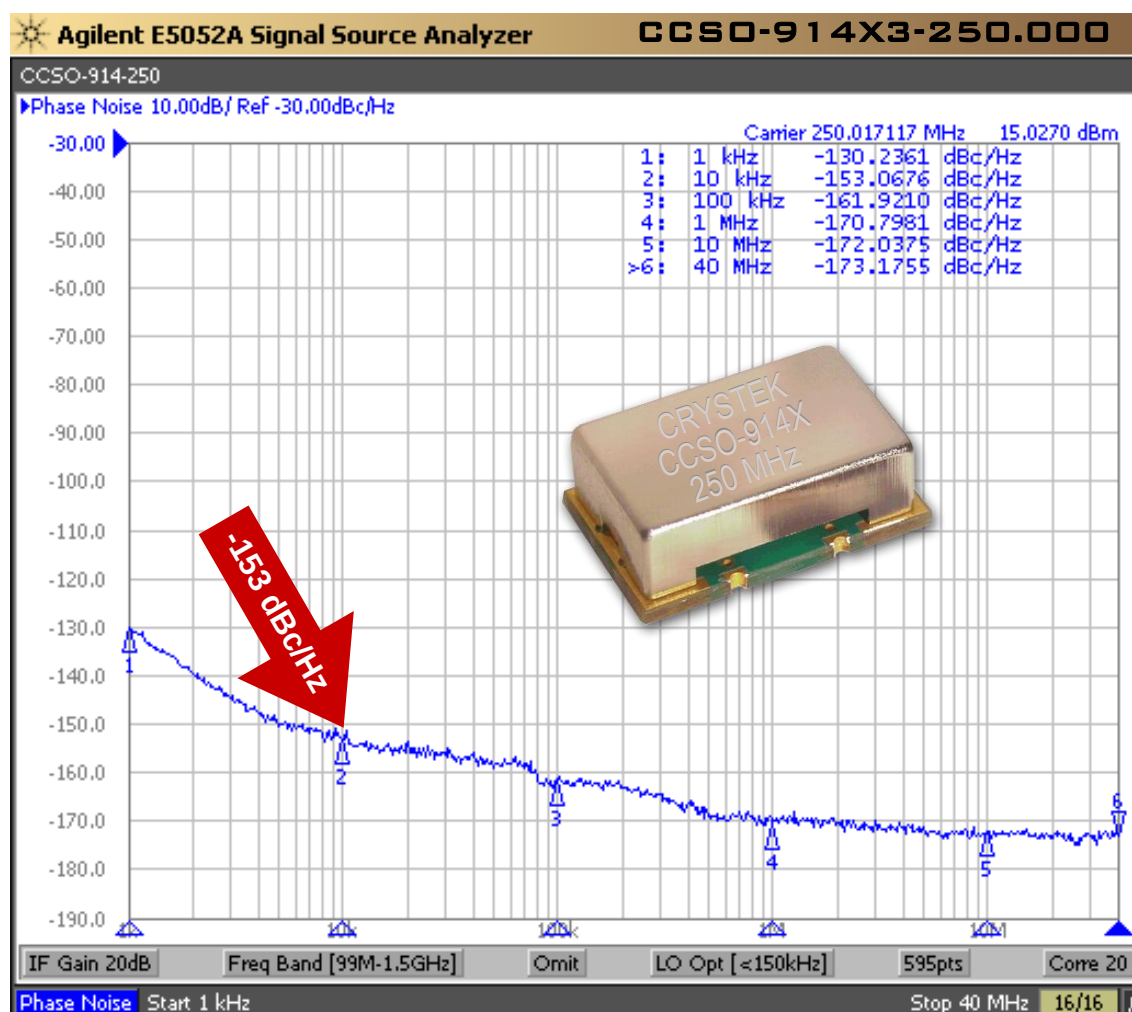


Ultra-Low Phase Noise SAW Clock

Frequency Range:

245.760 MHz to 1090 MHz



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: K

Date: 31-Jul-2013

Page 1 of 4



CRYSTEK
CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

CCSO-914X
True SineWave
SAW Based Clock Oscillator
9×14mm SMD
3.3 & 5.0 Volt



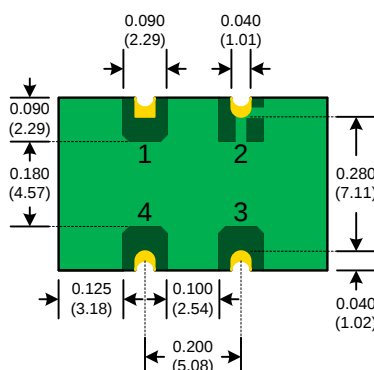
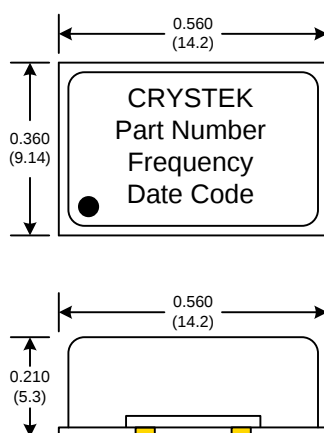
Frequency Range: 245.760 MHz to 1090 MHz
Temperature Range: -40°C to +85°C
Storage: -45°C to 90°C
Input Voltage: (option 3) 3.3V ± 0.165V
(standard) 5.0V ± 0.25V
Frequency vs Temperature: ±100ppm Typical
Input Current: 25mA Typical, 35mA Max
Output: True SineWave
Output Power: +8dBm Min. into 50 Ω Load
Start-Up Time: 2mSec Typical, 10mSec Max
2nd Harmonic: -20dBc Typical, -15dBc Max
Sub-Harmonics: None



Phase Noise Typical @ 1 GHz:

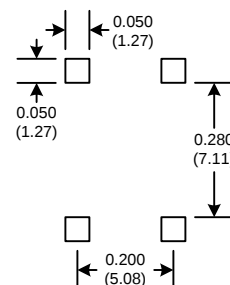
1kHz -110 dBc/Hz
10kHz -138 dBc/Hz
100kHz -150 dBc/Hz
1MHz -160 dBc/Hz
10MHz -170 dBc/Hz

G-sensitivity: 0.9×10^{-9} per g



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

SUGGESTED PAD LAYOUT



Rev: K
Date: 31-Jul-2013
Page 2 of 4



CRYSTEK
CRYSTALS
A DIVISION OF CRYSTEK CORPORATION



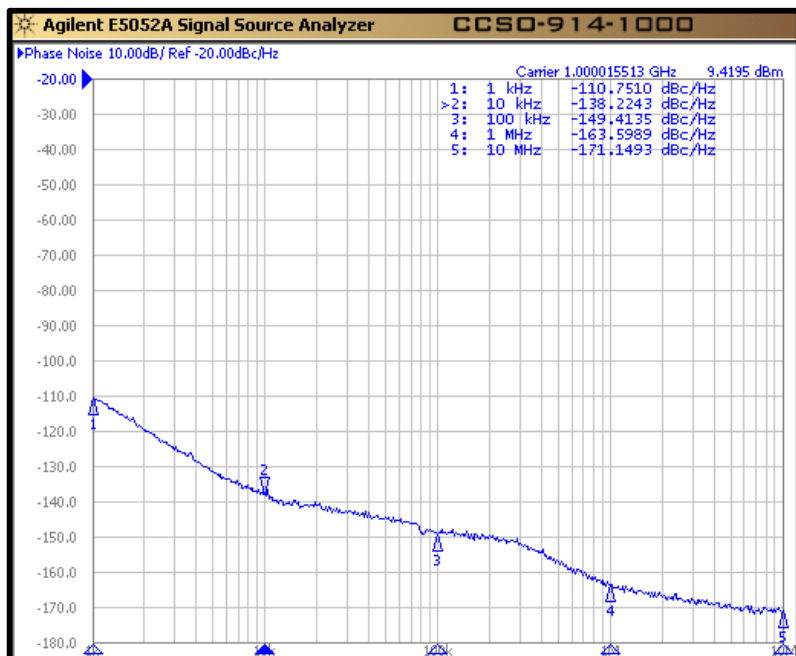
CCSO-914X

True SineWave

SAW Based Clock Oscillator

9×14mm SMD

3.3 & 5.0 Volt



Available Frequencies (MHz):

245.760	622.017	669.416900
250.000	622.018	669.577
300.000	622.080	690.650260
302.000	622.164	800.000
310.000	622.310	868.350
315.500	644.608590	916.000
359.400	644.769	1000.000
433.920	666.604300	1090.000
500.300		

Custom Frequencies Available with NRE Fee

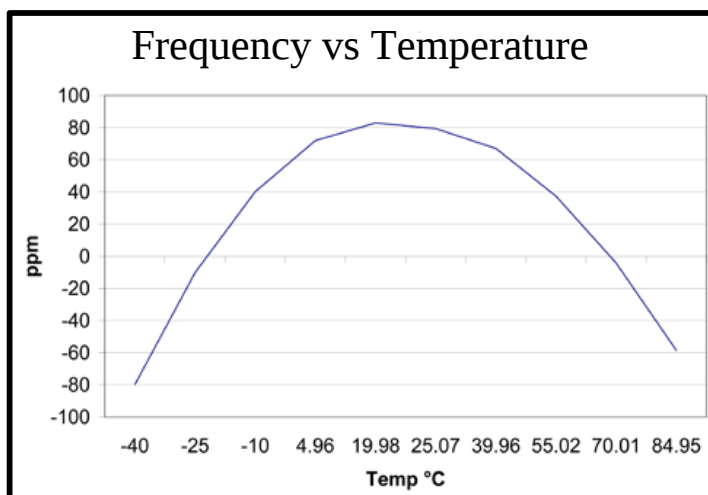
Crystek Part Number Guide

CCSO - 914X3 - 315.500

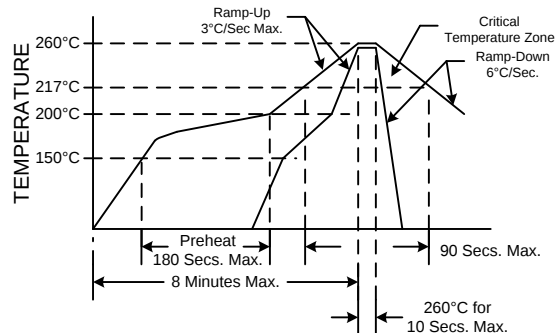
#1 #2 #3 #4

- #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

Rev: K

Date: 31-Jul-2013

Page 3 of 4



CRYSTEK
CORPORATION

12730 COMMONWEALTH DRIVE • FORT MYERS, FLORIDA 33913
PHONE: 239-561-3311 • 800-237-3061
FAX: 239-561-1025 • WWW.CRYSTEK.COM



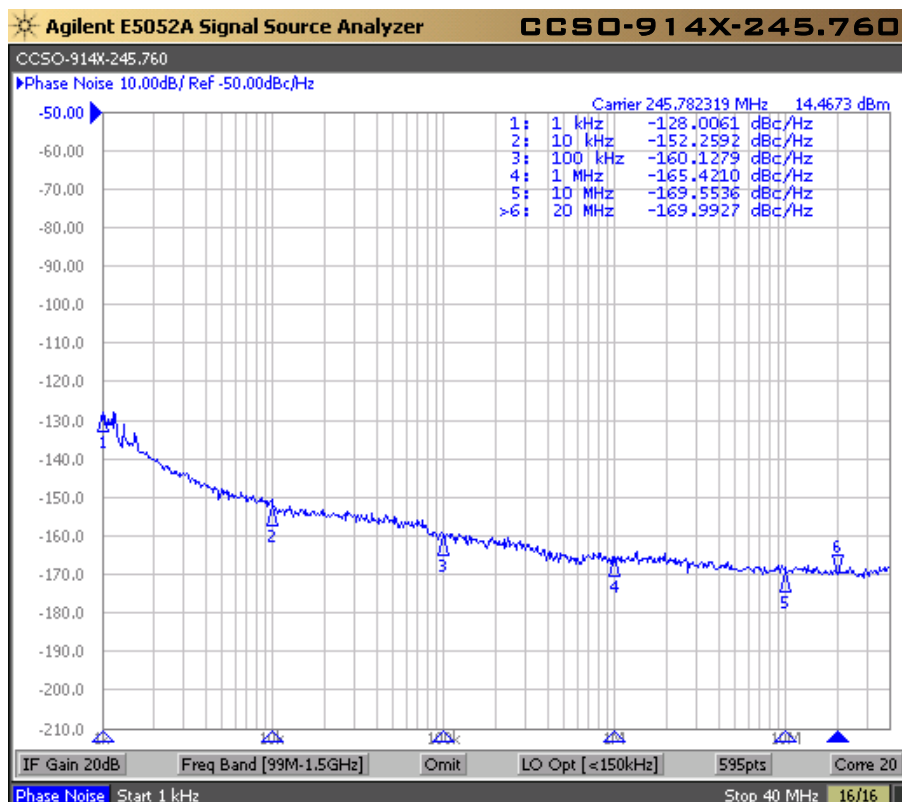
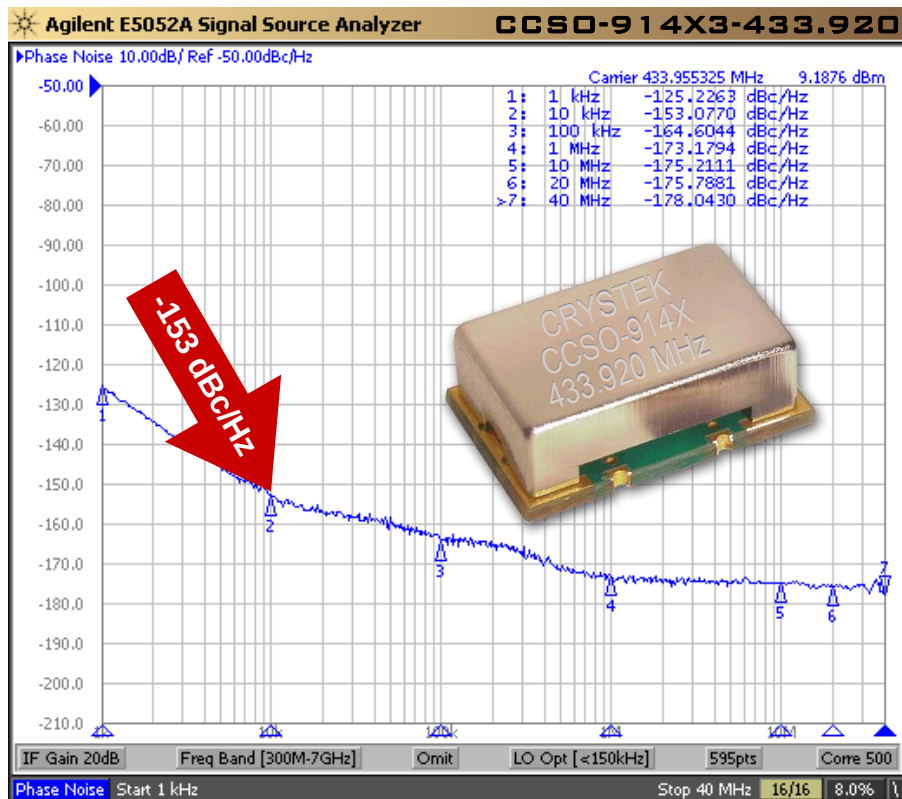
CRYSTEK
CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

CCSO-914X

True SineWave

SAW Based Clock Oscillator

9×14mm SMD 3.3 & 5.0 Volt



Rev: K

Date: 31-Jul-2013

Page 4 of 4



CRYSTEK
CORPORATION

12730 COMMONWEALTH DRIVE • FORT MYERS, FLORIDA 33913
PHONE: 239-561-3311 • 800-237-3061
FAX: 239-561-1025 • WWW.CRYSTEK.COM