CRYSTEK CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

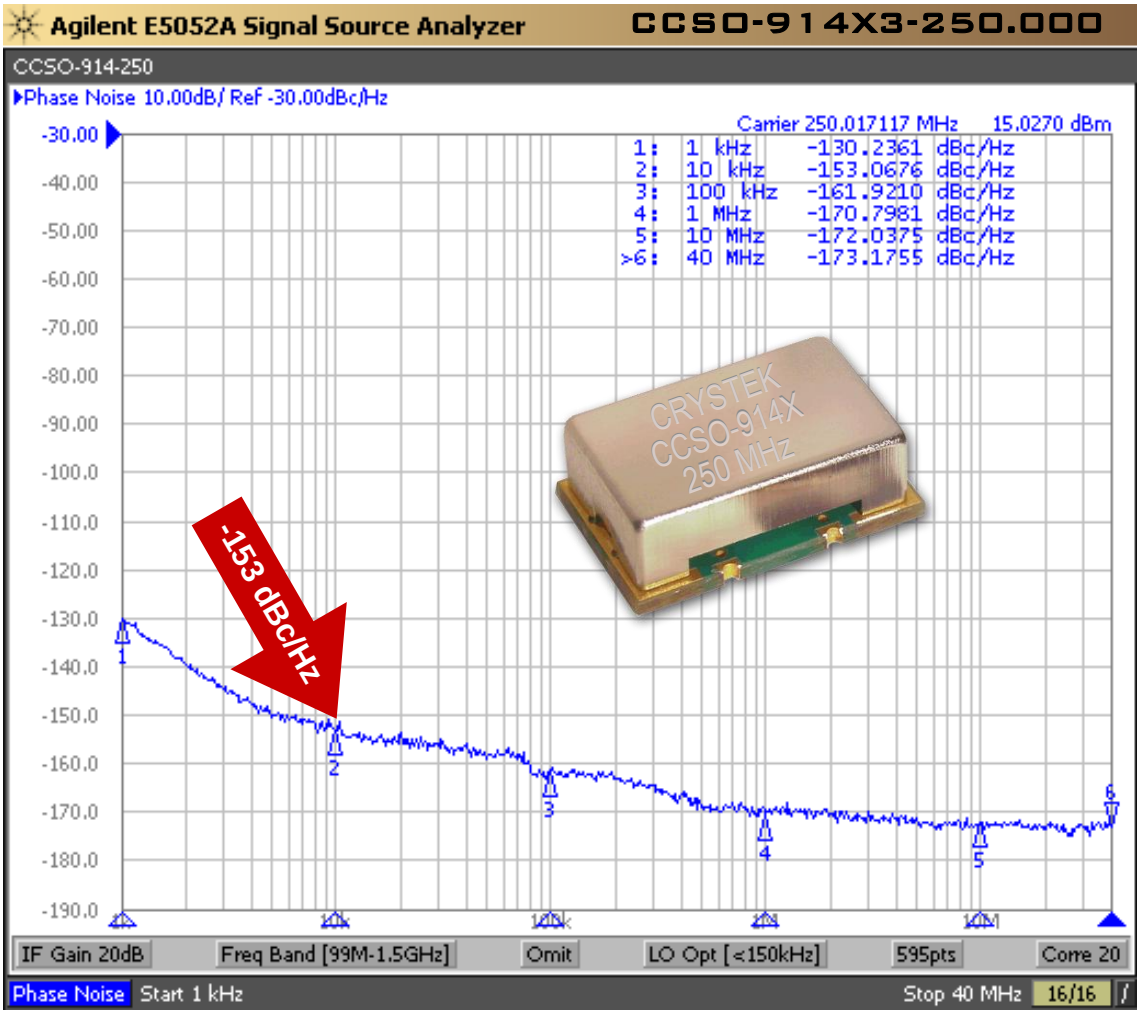
CCSO-914X

True SineWave
SAW Based Clock Oscillator
9×14mm SMD
3.3 & 5.0 Volt

Ultra-Low Phase Noise SAW Clock

Frequency Range:
245.760 MHz to 1090 MHz

RoHS Compliant



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.

CRYSTEK CORPORATION
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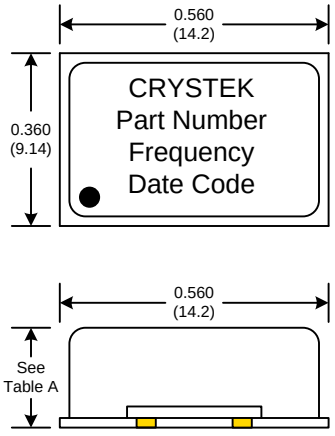
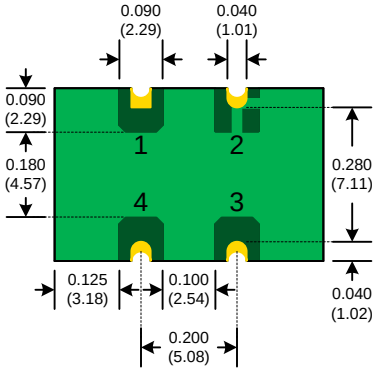
Frequency Range:		**245.760 MHz to 1090 MHz**
Temperature Range:		**-40°C to +85°C**
Storage:		**-45°C to 90°C**
Input Voltage:	**(option 3)**	**3.3V ± 0.165V**
	(standard)	**5.0V ±0.25V**
Frequency vs Temperature:		**±150ppm Typical**
Input Current:		**25mA Typical, 35mA Max**
Output:		**True SineWave**
Output Power:	**(3.3V)**	**+5dBm Min into 50 Ω Load**
	(5.0V)	**+8dBm Min into 50 Ω Load**
Start-Up Time:		**2mSec Typical, 10mSec Max**
2nd Harmonic:		**-20dBc Typical, -15dBc Max**
Sub-Harmonics:		**None**

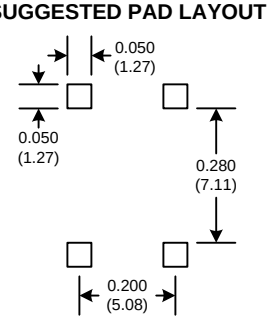
Phase Noise Typical @ 1 GHz:

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**







Package Height Options

	inches	mm
Standard	0.210	5.33
Option L	0.135	3.43

Table A

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

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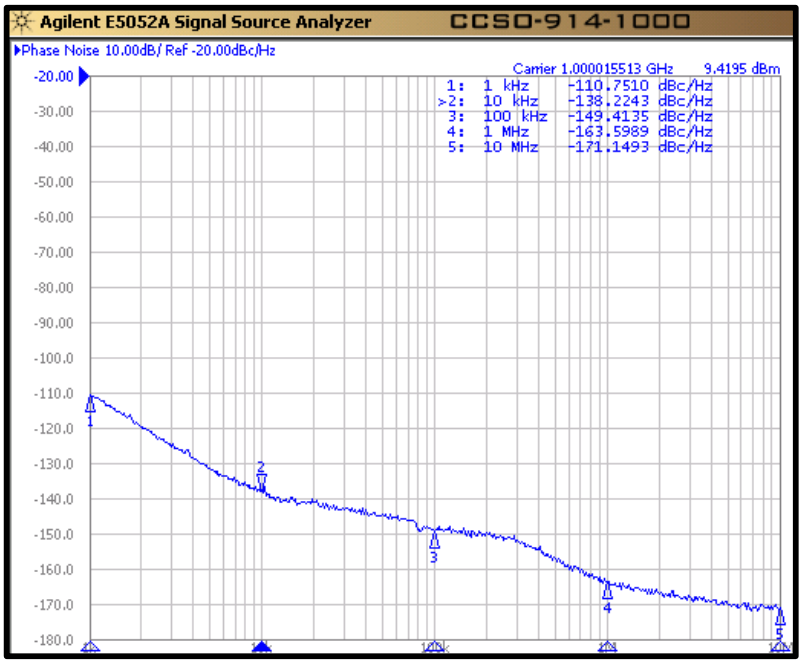


Available Frequencies (MHz):

245.760	800.000
250.000	916.000
433.920	1000.000
500.000	1090.000
622.080	

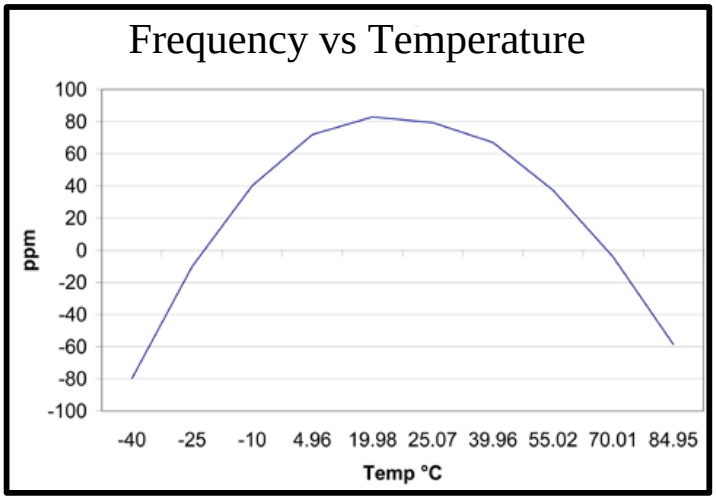
Custom Frequencies Available with NRE Fee

Crystek Part Number Guide

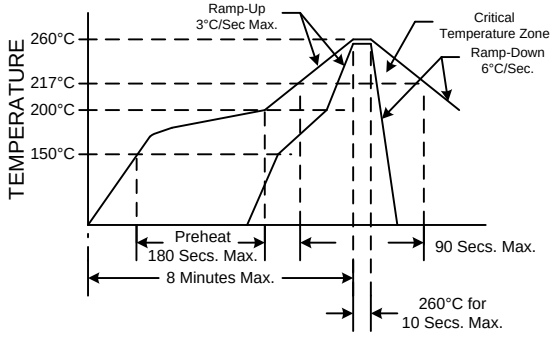
CCSO - 914X 3 L - 315.500
#1 #2 #3 #4 #5

#1 Crystek Saw Osc.
#2 Model 914 with -40/85°C Temperature Range
#3 (3 = 3.3Volts) (Blank = 5 Volts)
#4 Height (L = 0.135") (Blank = 0.210")
#5 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: P
Date: 10-Jul-2015

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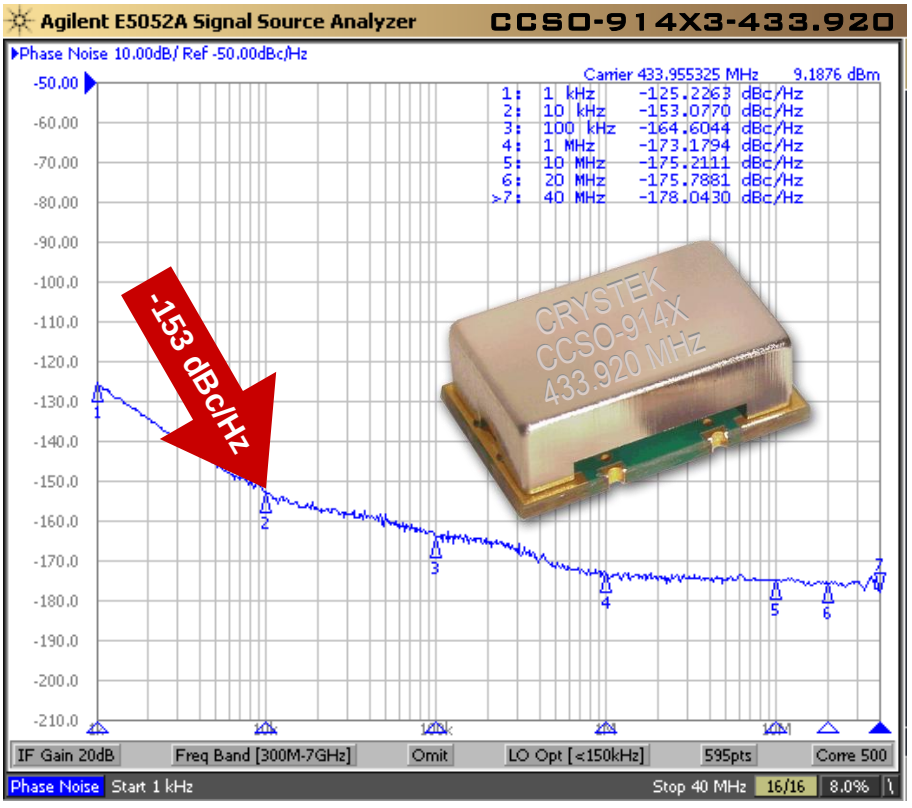

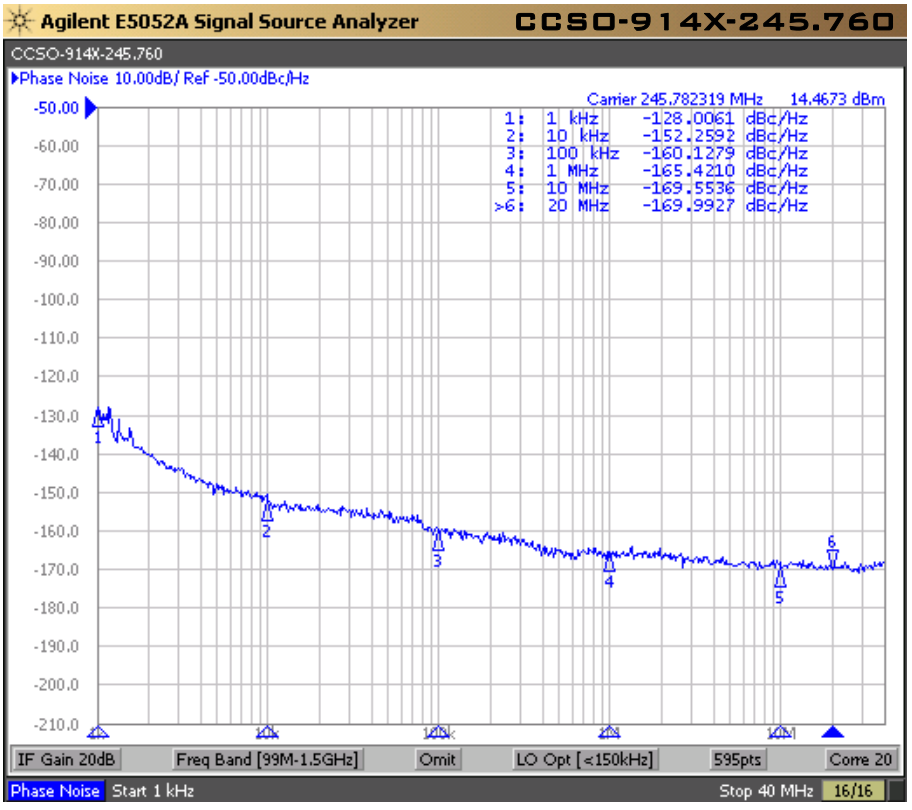

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