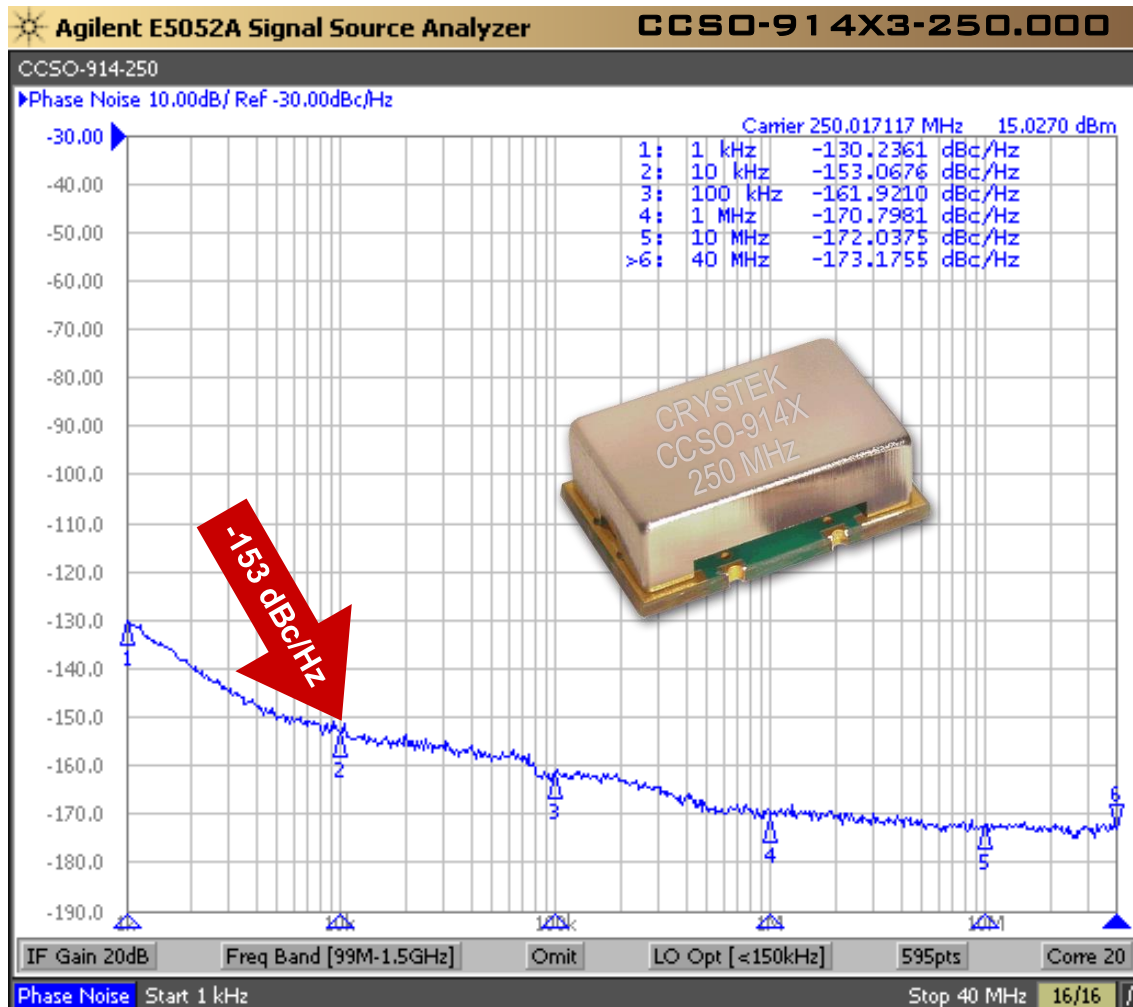


Ultra-Low Phase Noise SAW Clock

Frequency Range:

245.760 MHz to 1500 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 -145 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.

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CCSO-914X
True SineWave
SAW Based Clock Oscillator
9x14mm SMD
3.3 & 5.0 Volt



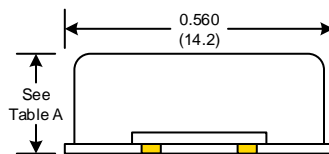
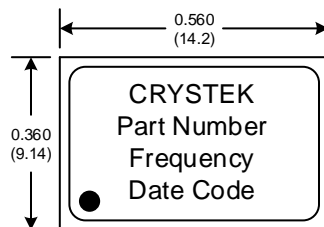
Frequency Range: 245.760 MHz to 1500 MHz
Temperature Range: -40°C to +85°C
Storage: -45°C to 90°C
Input Voltage: (option 3) 3.3V ± 0.165V
(standard) 5.0V ± 0.25V
Frequency vs Temperature (Typical): ±200ppm (-40/85)
±150ppm (0/70)
Input Current: 25mA Typical, 35mA Max
Output: True SineWave
Output Power: (3.3V) +5dBm Min into 50 Ω Load
(5.0V) +8dBm Min into 50 Ω Load
Start-Up Time: 2ms Typical, 10ms Max
2nd Harmonic: -20dBc Typical, -15dBc Max
Sub-Harmonics: None



Phase Noise Typical @ 1 GHz:

1kHz	-116 dBc/Hz
10kHz	-145 dBc/Hz
100kHz	-168 dBc/Hz
1MHz	-170 dBc/Hz
10MHz	-171 dBc/Hz

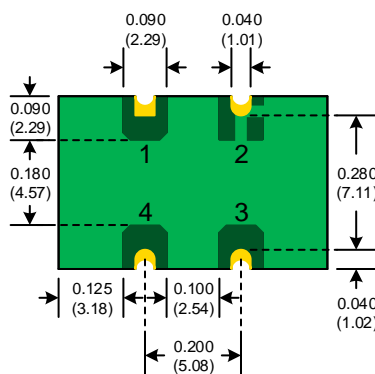
G-sensitivity: 0.9×10⁻⁹ per g



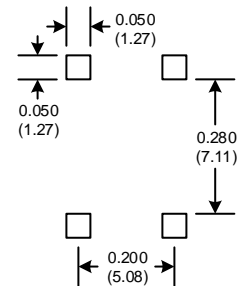
Package Height Options

	inches	mm
Standard	0.210	5.33
Option L	0.135	3.43

Table A



SUGGESTED PAD LAYOUT



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

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

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Crystek Part Number Guide

CCSO - 914X 3 L - 1000.000
#1 #2 #3 #4 #5

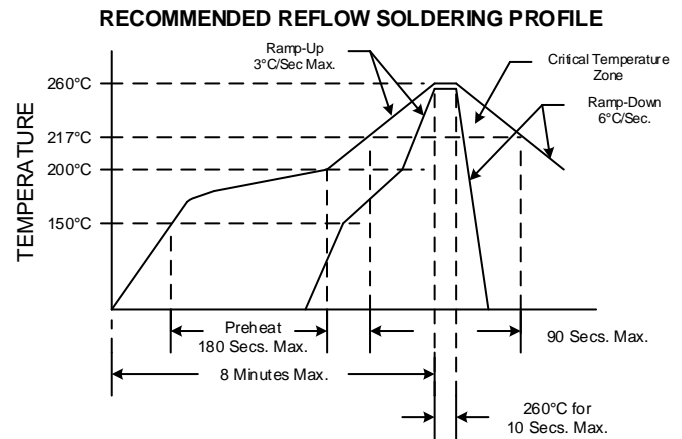
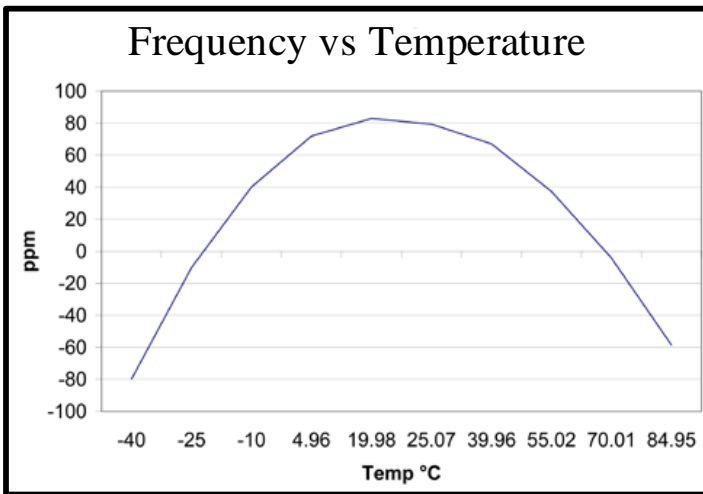
- #1 Crystek Saw Osc.
- #2 Model 914 with -40/85°C Temperature Range
- #3 (3 = 3.3Volts) (Blank = 5 Volts)
- #4 Height (L = 0.135") (Blank = 0.210")
- #5 Frequency in MHz: 3 or 6 decimal places

Available Frequencies (MHz):

245.760	500.000	916.000
250.000	622.080	1000.000
433.920	800.000	1500.000

Custom Frequencies Available with NRE Fee

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



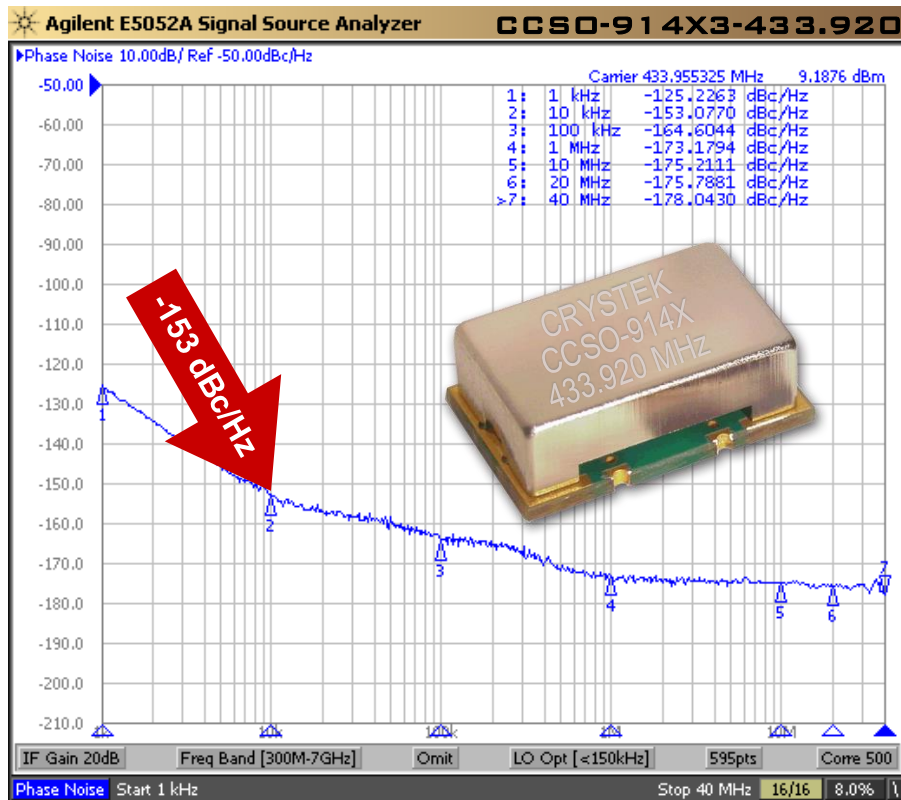
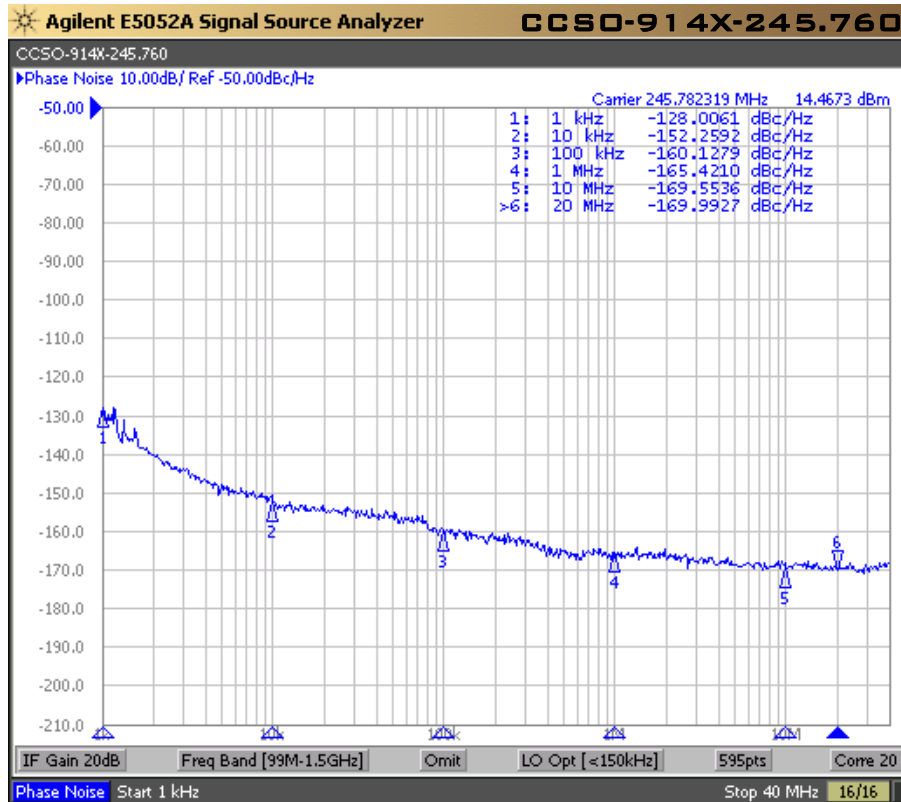
NOTE: Reflow Profile with 240°C peak also acceptable.

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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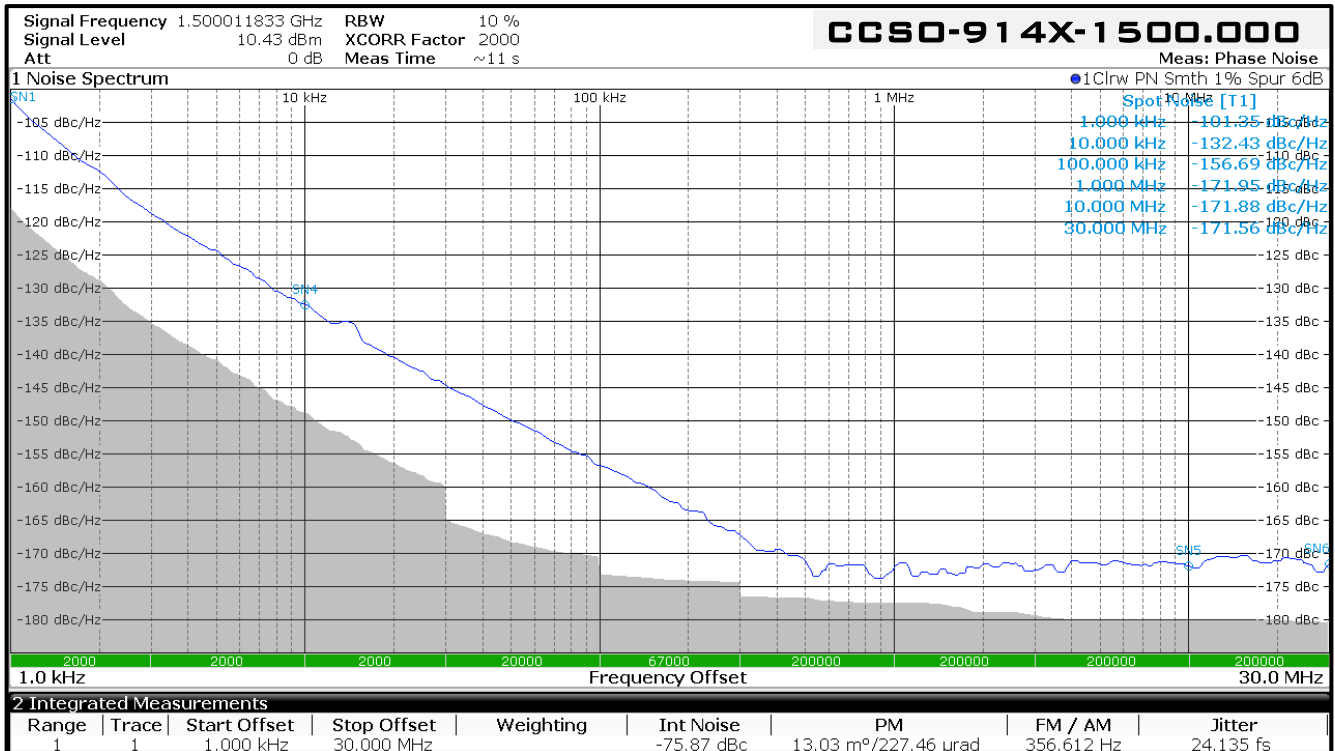
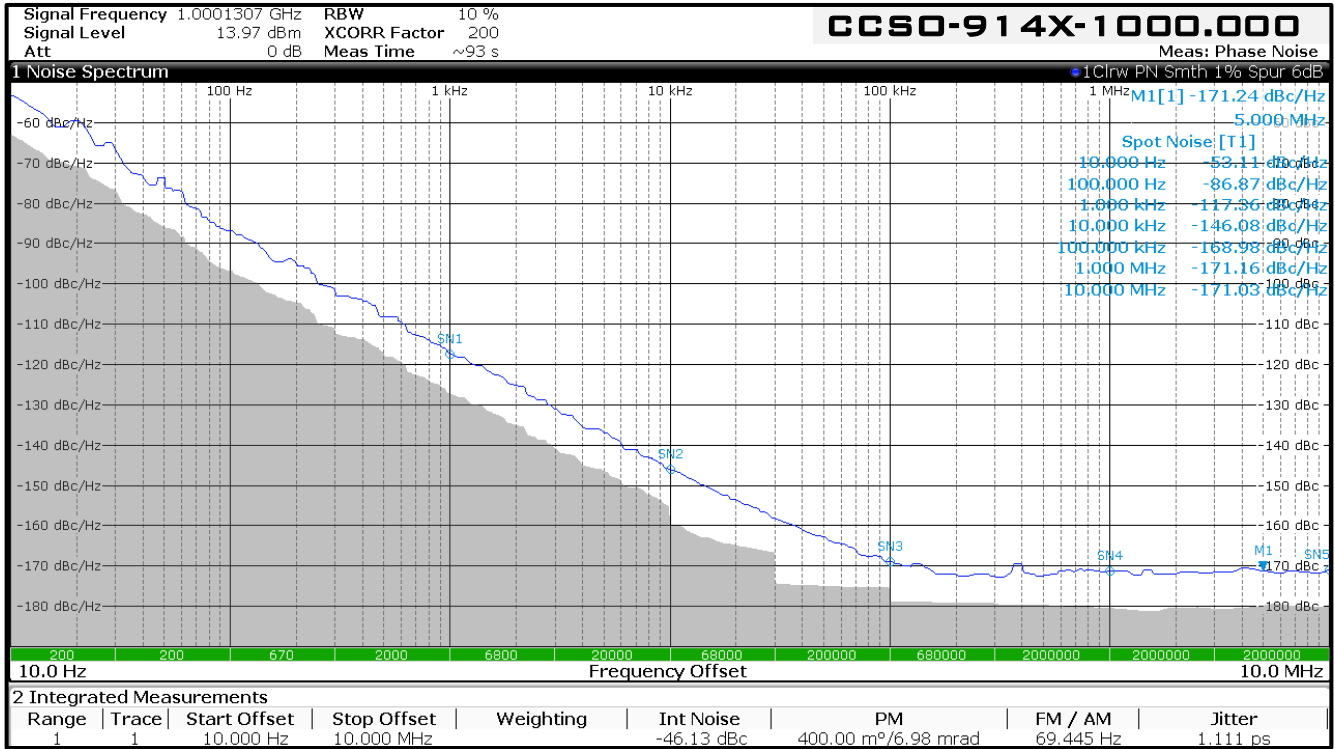
CCSO-914X
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[CCSO-914X-245.760](#) [EG-2121CA 100.0000M-LHPAB](#) [EG-2121CA 156.2500M-LHPAL3](#) [EG-2121CA 125.0000M-LHPAB](#) [EG-2121CA](#)
[125.0000M-PHPAL3](#) [CVCSO-914-1000](#) [CCSO-914X-1000](#) [CCSO-914X-250.000](#) [CCSO-914X3-1000](#) [CVCSO-914XL-1000.000](#) [EG-](#)
[2121CA 125.0000M-DHRAB](#) [EG-2121CA 100.0000M-LHPAL3](#) [EG-2121CA 125.0000M-LGRNLX](#) [EG-2121CA 200.0000M-LHPAL3](#) [EG-](#)
[2121CA 200.0000M-PHPAL3](#) [EG-2121CA 250.0000M-LGPAL3](#) [EG-2121CA 644.53125M-LGPAB](#) [EG-2121CA 156.2500M-LHPAB](#) [EG-](#)
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