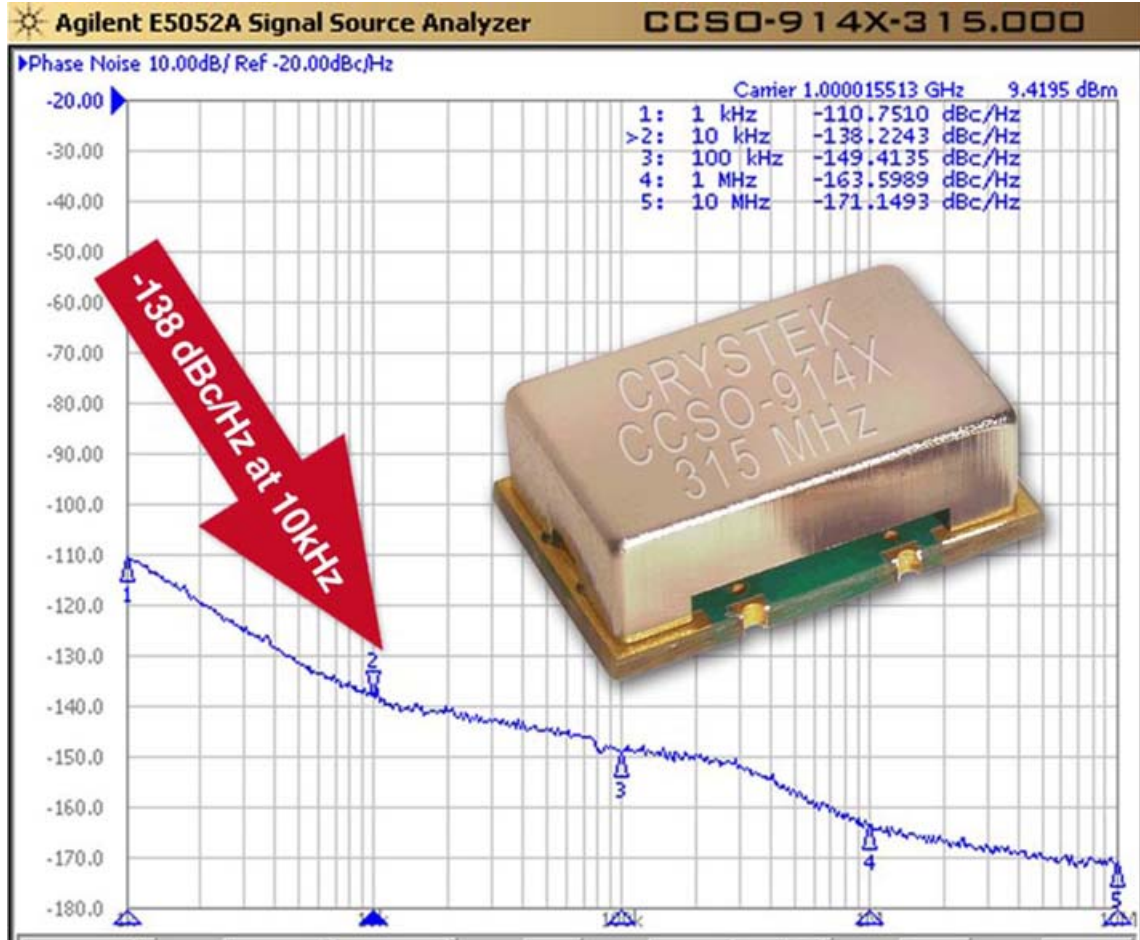


Ultra-Low Phase Noise SAW Clock

**Frequency Range:
300MHz to 916MHz**



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 -138dBc/Hz phase noise at 10kHz offset, 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 -20dBc.

Applications include:

System Clock for Network Clock Generator/Synchronizer, Clock for DDS, Test and Measurement, Avionics, Point-to-Point Radios, and Multi-point Radios.

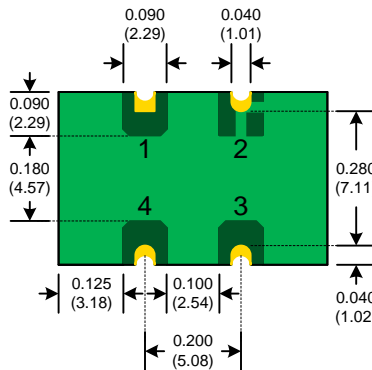
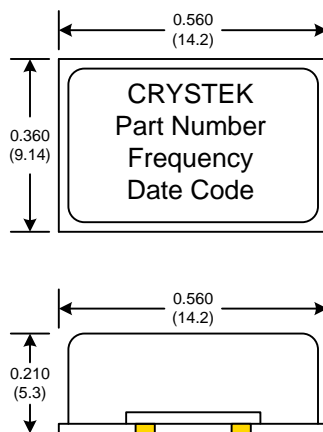
Rev: C
Date: 10-Feb-10
Page 1 of 3



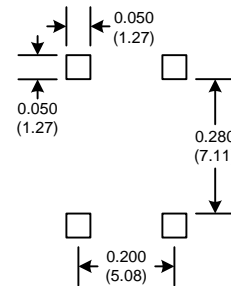
Frequency Range:	300MHz to 916MHz
Temperature Range:	-40°C to +85°C
Storage:	-45°C to 90°C
Input Voltage:	(option 3) 3.3V ± 0.165V (standard) 5.0V ± 0.25V
Frequency vs Temperature:	±100ppm Typ.
Input Current:	25mA Typ., 35mA Max
Output:	True SineWave
Output Power:	+8dBm Min. into 50 Ω Load
Start-Up Time:	2mSec Typ., 10mSec Max
2nd Harmonic:	-20dBc Typ., -15dBc Max
Sub-Harmonics:	None
Modulation BW:	>20kHz @ -3dB
Jitter:	
SONET OC-48(12kHz~80MHz)	0.18ps RMS Typ., 0.20ps RMS Max
SONET OC-192(50kHz~80MHz)	0.12ps RMS Typ., 0.15ps RMS Max

Phase Noise Typical:

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



SUGGESTED PAD LAYOUT

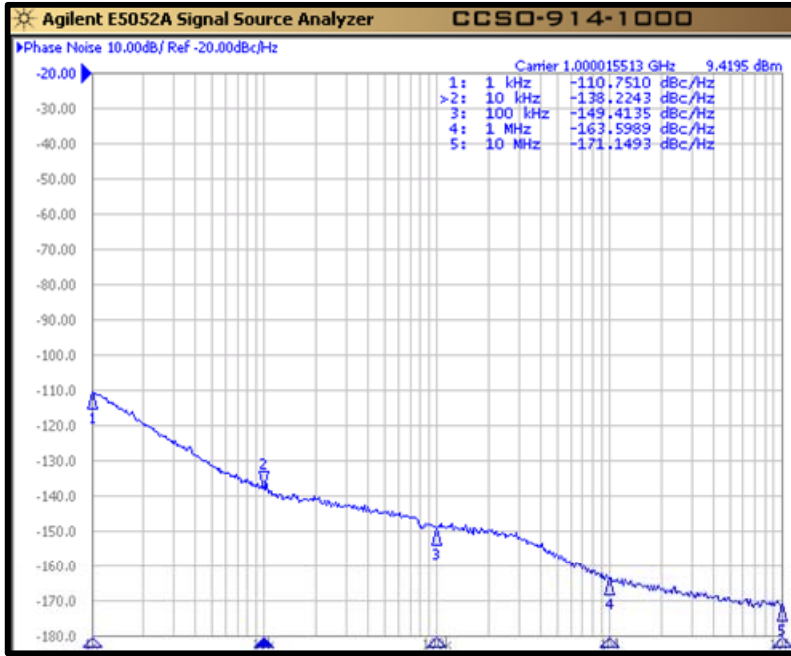


Pad	Connection
1	N/C
2	GND
3	Output
4	Vdd

Rev: C
Date: 10-Feb-10
Page 2 of 3



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



Available Frequencies (MHz):

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

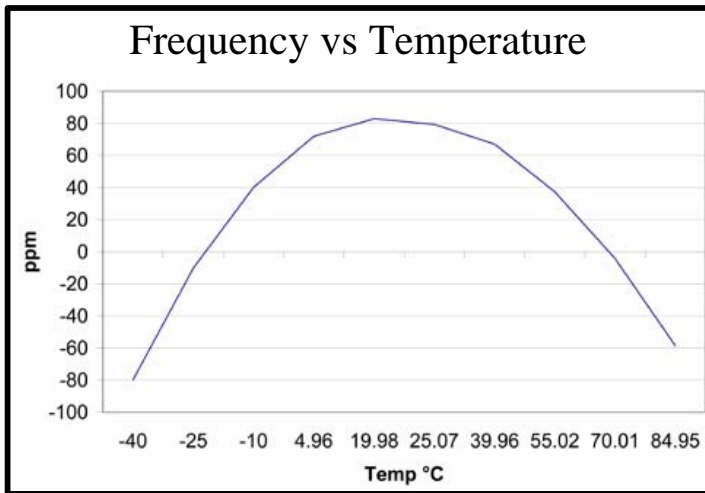
Custom Frequencies Available with NRE Fee

Crystek Part Number Guide

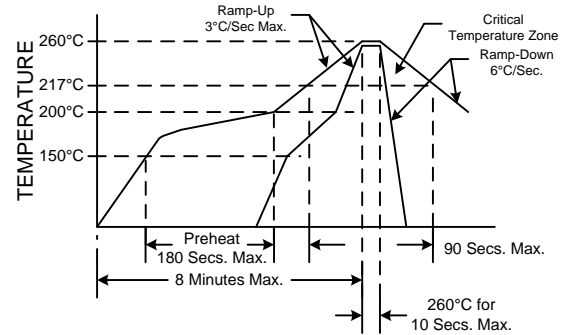
CCSO - 914X - 3 - 315.000

#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



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: C

Date: 10-Feb-10

Page 3 of 3