



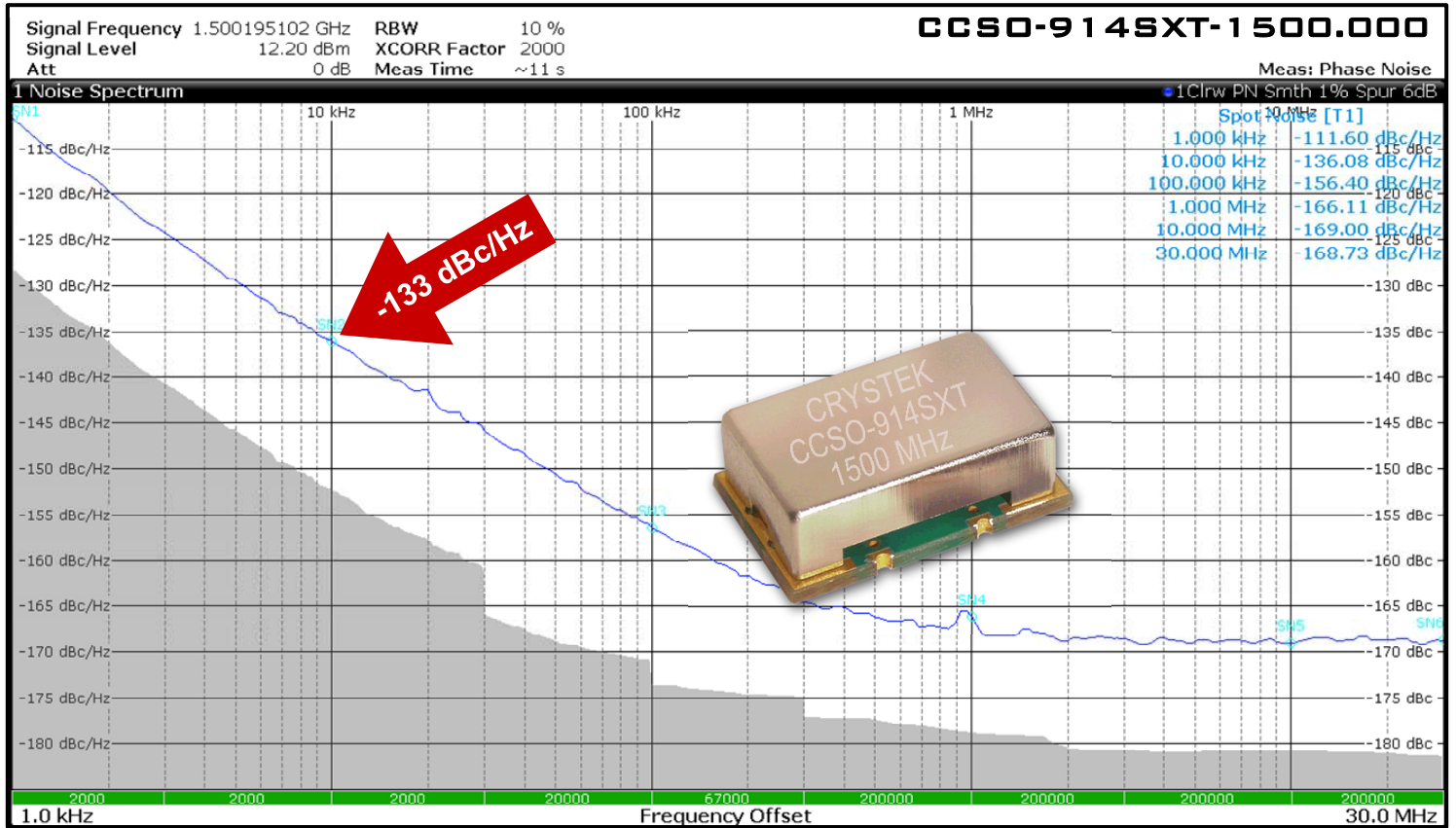
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Ultra-Low Phase Noise Frequency Doubling SAW Based Clock

CCSO-914SXT Model
9×14 mm SMD, 5.0V, SineWave

Frequency Range: 1200 MHz to 3000 MHz



Model CCSO-914SXT 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 -133 dBc/Hz phase noise at 10 kHz offset at 1.5 GHz, 5V input voltage, -20°C to +70°C standard operating temperature, and 9×14 mm SMT package. The oscillator's second harmonic and sub-harmonic are -20 dBc and -15 dBc typical respectively.

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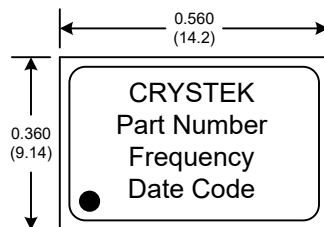
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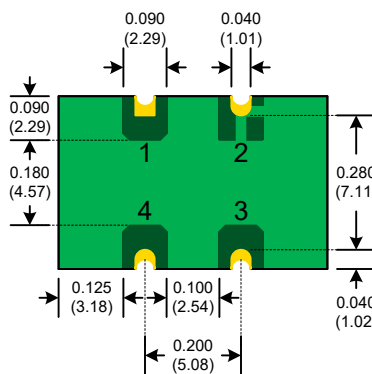
Frequency Range:	1200 MHz to 3 GHz
Temperature Range:	-20°C to +70°C (standard)
(Option E):	0°C to 85°C
(Option X):	-40°C to 85°C
Storage:	-40°C to 90°C
Input Voltage:	5.0V ±0.25V
Frequency vs Temperature (Typical):	±200ppm (-40/85) ±150ppm (0/70)
Input Current:	25mA Typical, 35mA Max
Output:	True SineWave
Output Power:	+8 dBm Min into 50 Ω Load -2 dBm Min into 50 Ω Load
(1200 MHz – 2 GHz)	
(3 GHz)	
Start-Up Time:	2ms Typical, 10ms Max
2nd Harmonic:	-20dBc Typical
Sub-Harmonics (Fo/2):	-15dBc Typical
Phase Noise:	See Plots
G-sensitivity:	0.9×10 ⁻⁹ per g



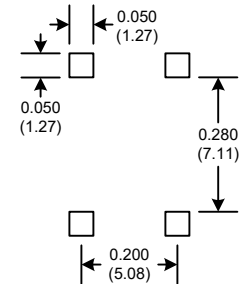
Package Height Options (Max)

	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 - 914SXT X L - 1500.000

#1 #2 #3 #4 #5

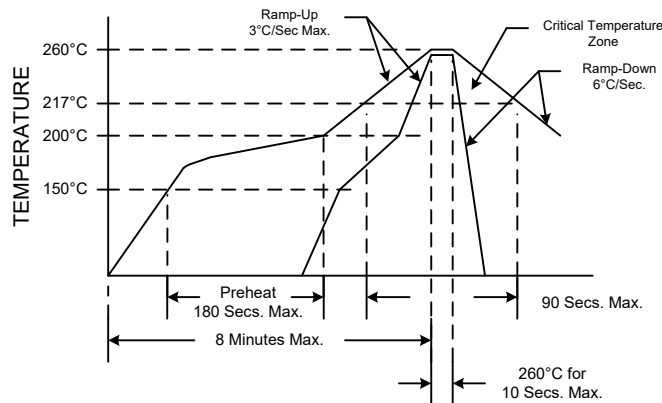
- #1 Crystek Saw Oscillator
- #2 Model 914SXT
- #3 Temperature Range (Blank = -20°C to 70°C)
(E = 0°C to 85°C)
(X = -40°C to 80°C)
- #4 Height (L = 0.135") (Blank = 0.210")
- #5 Frequency in MHz: 3 or 6 decimal places

Available Frequencies (MHz):

1200	1500	2000
1244.160	1600	3000

Custom Frequencies Available with NRE Fee

RECOMMENDED REFLOW SOLDERING PROFILE



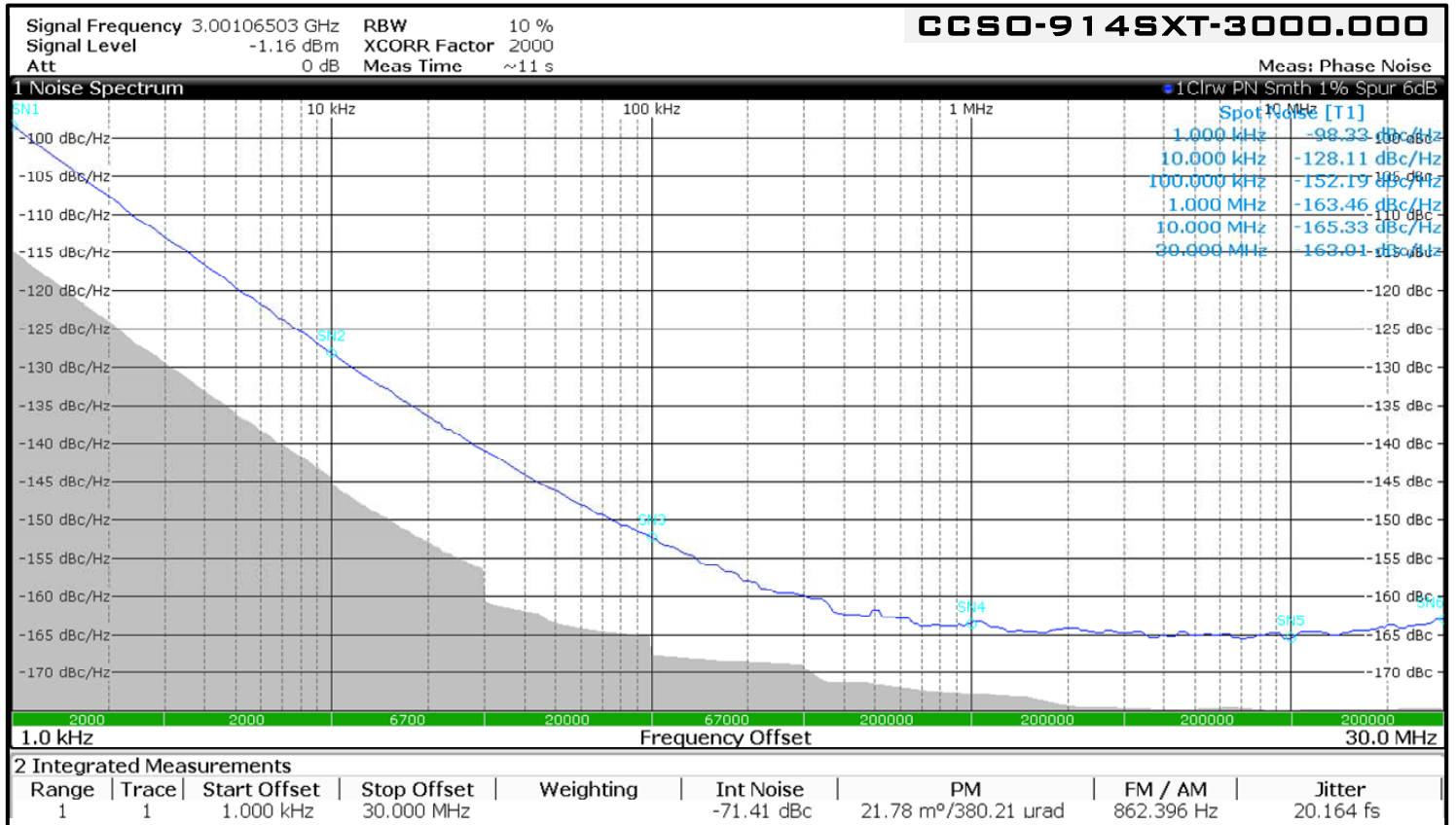
NOTE: Reflow Profile with 240°C peak also acceptable.

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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