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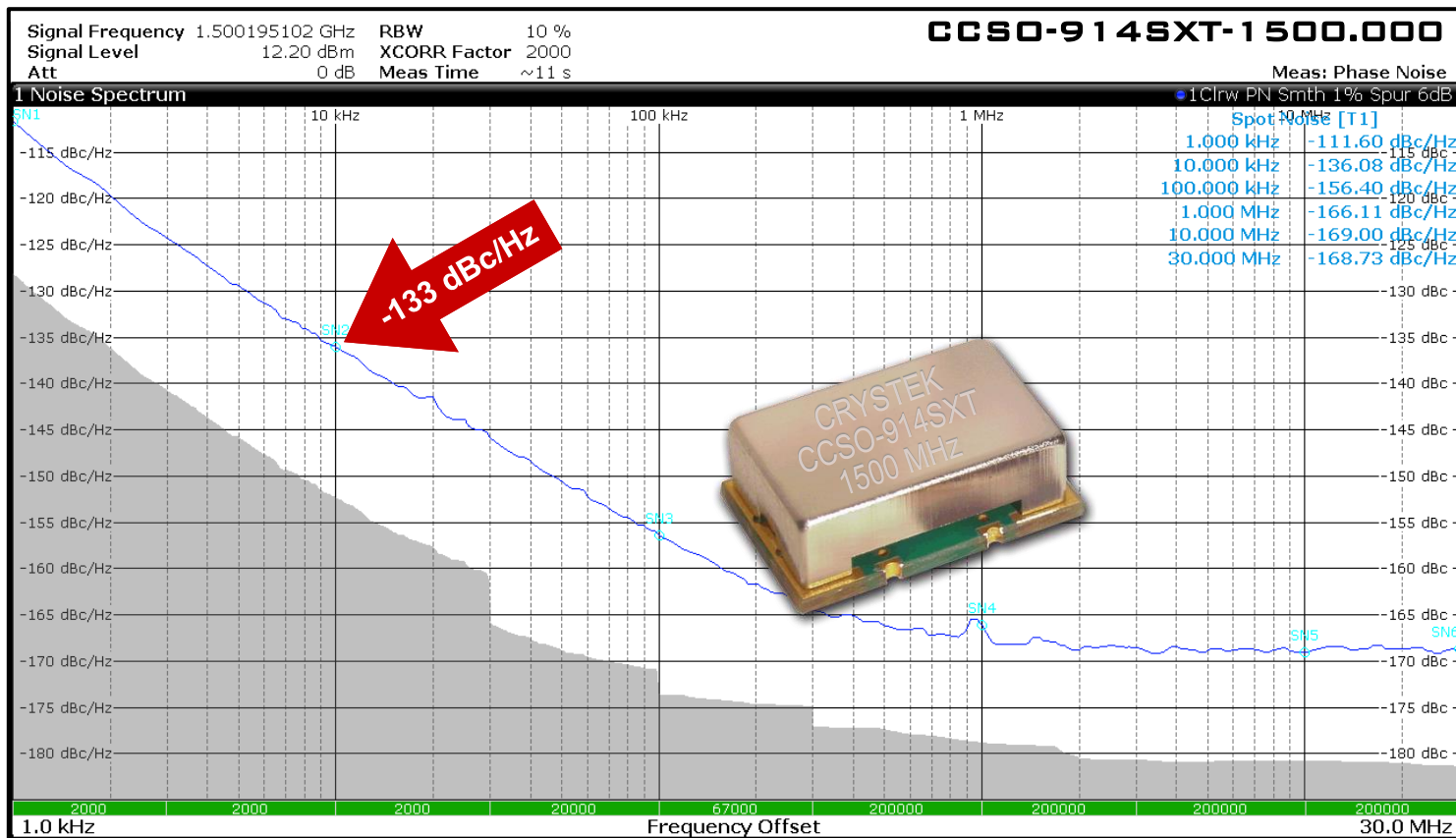


Ultra-Low Phase Noise Frequency Doubling SAW Based Clock

CCSO-914SXT Model

9×14 mm SMD, 5.0V, SineWave

Frequency Range: 1200 MHz to 2000 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.

Rev: F

Date: 18-Oct-2024

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9×14 mm SMD, 5.0V, SineWave

Frequency Range:

Temperature Range:

(Option E):

(Option X):

Storage:

Input Voltage:

Frequency vs Temperature (Typical):

Input Current:

Output:

Output Power:

(1200 MHz – 2 GHz)

Start-Up Time:

2nd Harmonic:

Sub-Harmonics (Fo/2):

Phase Noise:

G-sensitivity:

1200 MHz to 2 GHz

-20°C to +70°C (standard)

0°C to 85°C

-40°C to 85°C

-40°C to 90°C

5.0V ±0.25V

±200ppm (-40/85)

±150ppm (-20/70)

60mA Max

True SineWave

+8 dBm Min into 50 Ω Load

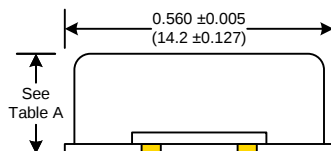
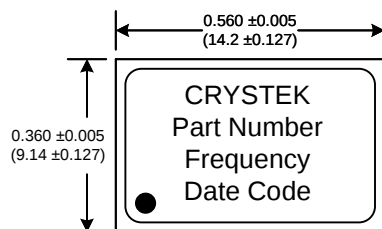
2ms Typical, 10ms Max

-15dBc Typical

-15dBc Typical

See Plots

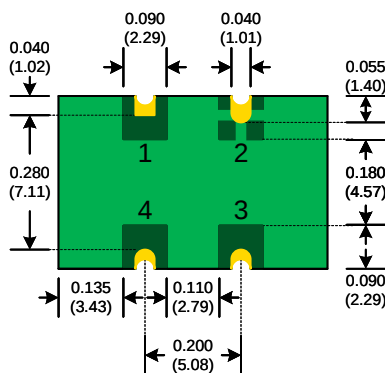
0.9×10⁻⁹ per g



Package Height Options (Max)

	inches	mm
Standard	0.210	5.33
Option L	0.135	3.43

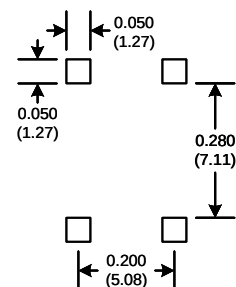
Table A



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

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

SUGGESTED PAD LAYOUT



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Crystek Part Number Guide

CCSO - 914SXT X L - 1500.000

#1 #2 #3 #4 #5

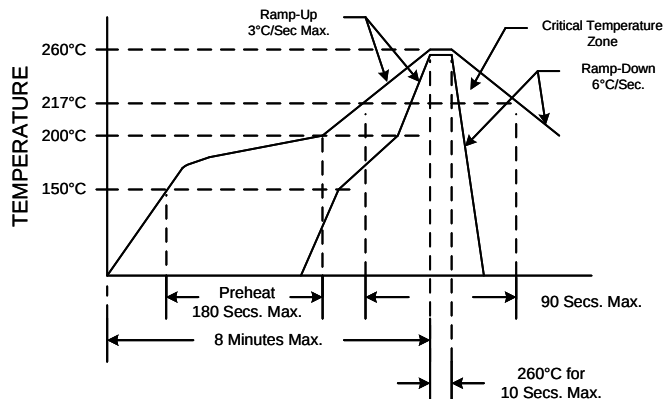
#1 Crystek Saw Oscillator
#2 Model 914SXT
#3 Temperature Range (Blank = -20°C to 70°C)
(E = 0°C to 85°C)
(X = -40°C to 80°C)
#4 Height (L = 0.135") (Blank = 0.210")
#5 Frequency in MHz: 3 or 6 decimal places

Available Frequencies (MHz):

1200 1500 2000
1244.160 1600

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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