



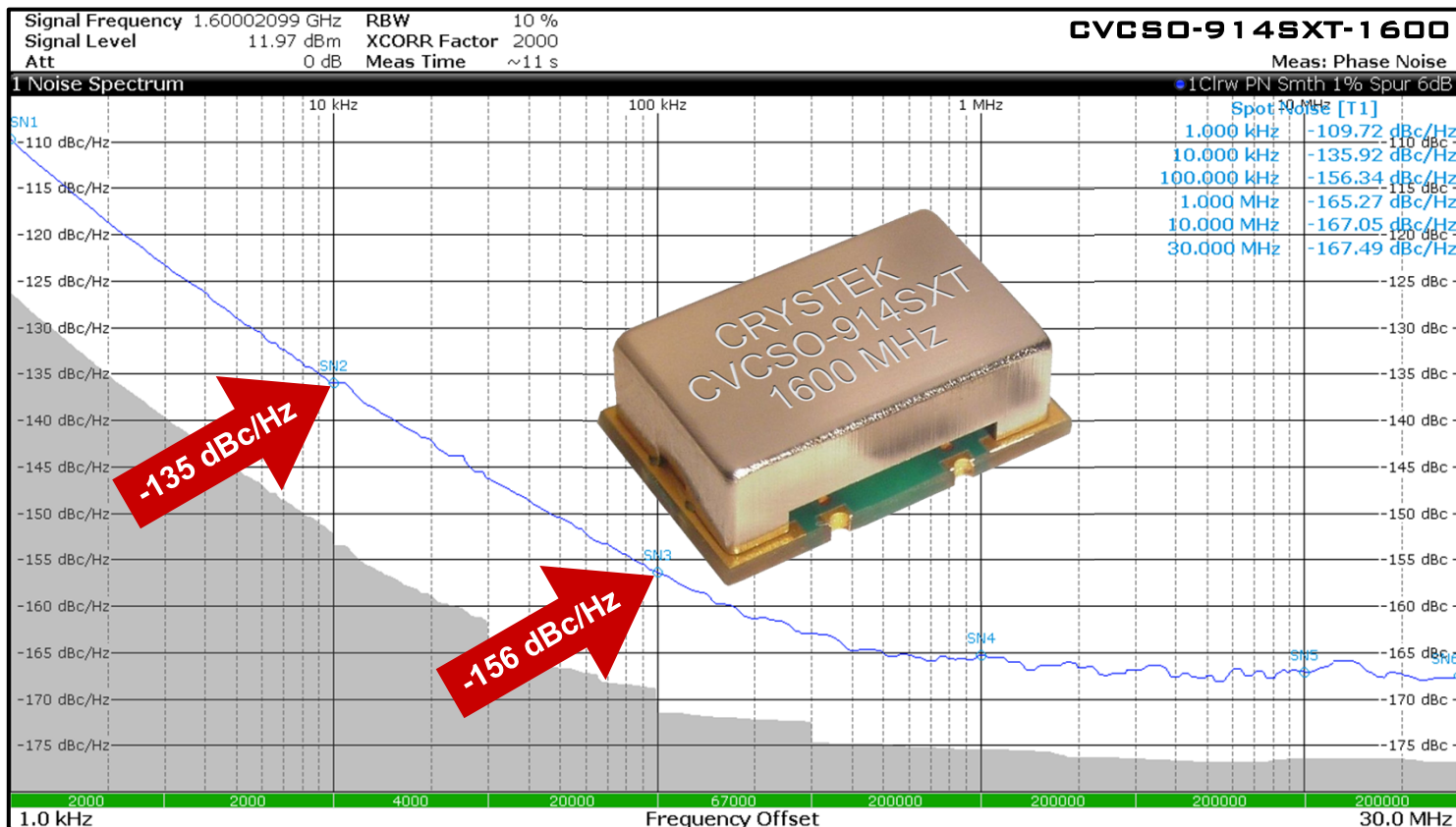
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Ultra-Low Phase Noise Frequency Doubling SAW Based VCSO

CVCSO-914SXT Model

9×14 mm SMD, 5.0V, SineWave



Model CVCSO-914SXT is a voltage-controlled SAW (surface acoustic wave) Clock Oscillator (VCSO). 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 1.6 GHz, 5V input voltage, -20°C to +70°C operating temperature, and 9×14 mm SMT package. The oscillator's second harmonic is typically -20 dBc.

Applications include PLL frequency translation, test and measurement, avionics, point-to-point radios, and multi-point radios.

Rev: H

Date: 20-Aug-2020

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9x14 mm SMD, 5.0V, SineWave



Ultra-Low Phase Noise Frequency Doubling SAW Based VCSO

Frequency Range:	1244.160 MHz to 2000 MHz
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
Control Voltage Range:	0V to 5.0V
Tuning Sensitivity (Kv):	+120 ppm/V Typical
Settability At Nominal (25°C):	1.5V +0.5V -1.0V
Frequency vs Temperature:	±200ppm Typical
Input Current:	60mA Typical, 70mA Max



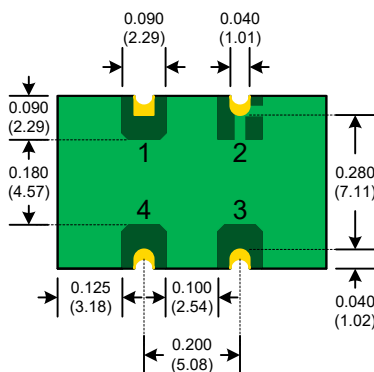
Output:	True SineWave
Pullability APR:	±50ppm Min
Linearity:	±20% Max
Output Power:	+8dBm Min into 50 Ω Load
Start-Up Time:	2ms Typical, 10ms Max
2nd Harmonic:	-20dBc Typical
(Nominal Frequency)/2:	-15dBc Max
Modulation BW:	>20kHz @ -3dB

G-sensitivity: 0.9×10^{-9} per G
Weight: 0.816 g

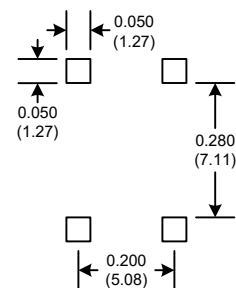


	inches	mm
Standard	0.210	5.33
Option L	0.135	3.43

Table A



SUGGESTED PAD LAYOUT



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

Pad	Connection
1	Volt. Control
2	GND
3	Output
4	Vdd

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Crystek Part Number Guide

CVCSO - 914SXT X L - 1500.000

#1 #2 #3 #4 #5

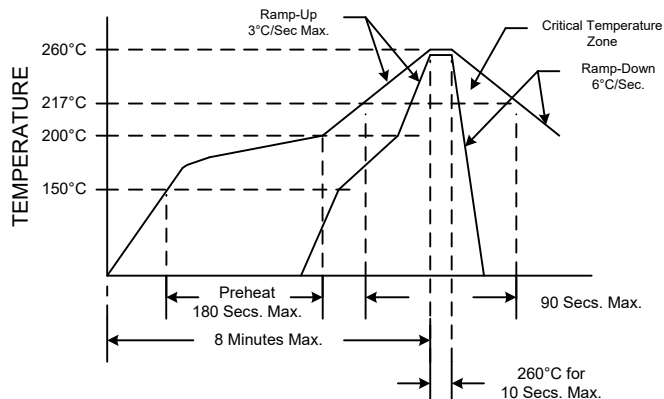
#1 Crystek Voltage Control Saw Oscillator
#2 Model 914SXT
#3 Temperature Range (Blank = -20°C to 70°C)
(E = 0°C to 85°C)
(X = -40°C to 80°C)
#4 Height (L = 0.135") (Blank = 0.210")
#5 Frequency in MHz: 3 or 6 decimal places

Available Frequencies (MHz):

1244.160 1600
1500 2000

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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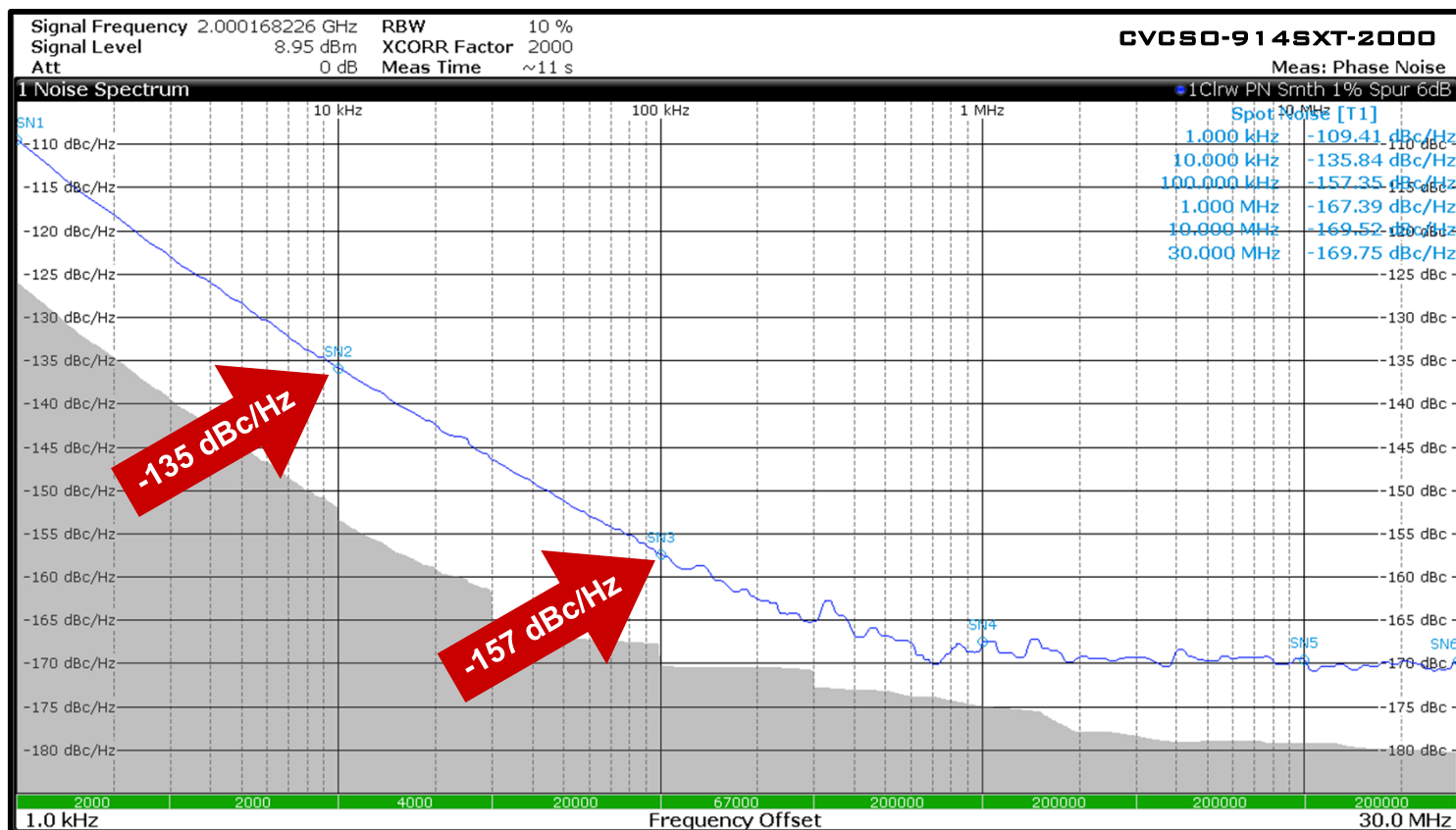
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