

CVSS-940 Model

9×14 mm SMD, 3.3V, SineWave

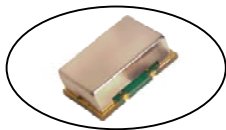
Frequency Range:	77.760 MHz to 500 MHz
Temperature Range: (Option X)	0°C to 70°C -40°C to 85°C
Storage:	-40°C to 100°C
Input Voltage:	3.3V ± 0.3V
Control Voltage:	1.65V ± 1.65V
Settability At Nominal:	1.65V ± 0.25V
Input Current:	30mA Max
Output:	True SineWave
Pullability APR:	±50ppm Min
Linearity:	±10% Max
Output Power:	0 dBm Min
Start-up time:	2ms Typical, 10ms Max
Load:	50 Ω
2nd Harmonic:	-20 dBc Max
Sub-harmonics:	
(77MHz~170MHz)	None
(171MHz~500MHz)	-40 dBc Typical, -35 dBc Max
Modulation BW:	>10kHz @ -3dB
Period Jitter: (20,000 periods)	<5ps RMS (1-sigma) Max
Phase Jitter: 12kHz~20MHz	<1ps RMS (1-sigma) Max
50kHz~80MHz	<1ps RMS (1-sigma) Max
Phase Noise Typical: 10Hz	-50 dBc/Hz
(@311.04MHz) 100Hz	-80 dBc/Hz
1kHz	-110 dBc/Hz
10kHz	-135 dBc/Hz
100kHz	-145 dBc/Hz
Aging:	<3ppm 1 st year, <2ppm every year thereafter



Applications:

- 10 Gigabit Ethernet
- OC48: Forward Error Correction
- Broadband Networks
- SONET/SDH/DWD
- ATM
- Network/switch
- Telecom

Designed using FR5 PCB & HFF crystal technology to provide a Low Noise, Low Jitter Voltage Controlled Crystal Oscillator with True SineWave Output.



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High Frequency SineWave VCXO



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Crystek Part Number Guide

CVSS-940 X-155.520

#1 #2 #3 #4

#1 Crystek 9×14 SMD SineWave VCXO
#2 Model 940 = High Frequency 3.3V
#3 Temp. Range: Blank = 0/70°C, X = -40/85°C
#4 Frequency in MHz: 3 or 6 decimal places

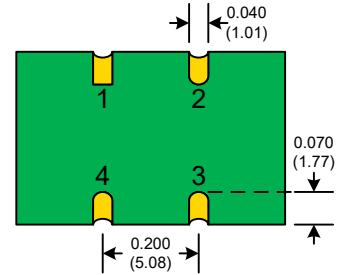
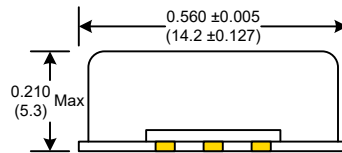
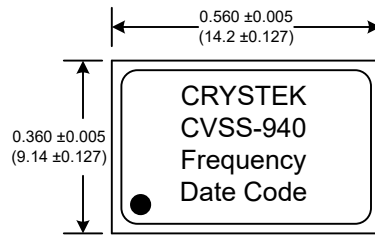
Example:
CVSS-940X-155.520 = 3.3V, -40/85°C, 155.520 MHz

Standard Frequencies MHz

77.7600	167.3317
155.5200	212.5000
156.2500	250.0000
161.1328	311.0400
166.6286	

RECOMMENDED REFLOW SOLDERING PROFILE 900034 (See App Note listed on website)

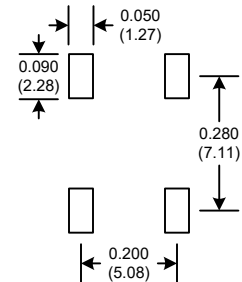
<http://www.crystek.com/specification/reflow/900034.pdf>



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

Pad	Connection
1	Volt Cont.
2	GND
3	OUT
4	Vdd

SUGGESTED PAD LAYOUT



Mechanical:

Shock:	MIL-STD-883, Method 2002, Condition B
Solderability:	MIL-STD-883, Method 2003
Vibration:	MIL-STD-883, Method 2007, Condition A
Solvent Resistance:	MIL-STD-202, Method 215
Resistance to Soldering Heat:	MIL-STD-202, Method 210, Condition I or J

Environmental:

Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004

Packaging:

Tape/Reel: 100ea, 250ea, 500ea 24mm Tape

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