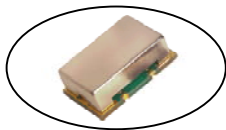


# High Frequency Sine Wave VCXO

## CVSS-940 Model 9X14 mm SMD, 3.3V, SineWave

<b>Frequency Range:</b>	77.760MHz to 500MHz
<b>Temperature Range:</b> (Option X)	0°C to 70°C -40°C to 85°C
<b>Storage:</b>	-40°C to 100°C
<b>Input Voltage:</b>	3.3V ± 0.3V
<b>Control Voltage:</b>	1.65V ± 1.65V
<b>Settability At Nominal:</b>	1.65V ± 0.25V
<b>Input Current:</b>	30mA Max
<b>Output:</b>	True SineWave
Pullability APR:	±50ppm Min.
Linearity:	±10% Max
Output Power:	0 dBm Min.
Start-up time:	2ms Typ., 10ms Max
Load:	50 Ω
<b>2nd Harmonic:</b>	-20dBc Max
<b>Sub-harmonics:</b>	
(77MHz~170MHz)	None
(171MHz~500MHz)	-55 dBc Typ., -50 dBc Max
<b>Modulation BW:</b>	>10KHz @ -3dB
<b>Period Jitter:</b> (20,000 periods)	<5ps RMS (1-sigma) Max
<b>Phase Jitter:</b> 12KHz~20MHz	<1ps RMS (1-sigma) Max,
50KHz~80MHz	<1ps RMS (1-sigma) Max,
<b>Phase Noise Typ.:</b>	
(@311.04MHz) 10Hz	-50 dBc/Hz
100Hz	-80 dBc/Hz
1KHz	-110 dBc/Hz
10KHz	-135 dBc/Hz
100KHz	-145 dBc/Hz
<b>Aging:</b>	<3ppm 1st/yr, <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.

Specifications subject to change without notice.

TD-041205 Rev. C

Page 1 of 2

# High Frequency Sine Wave VCXO

## CVSS-940 Model 9X14 mm SMD, 3.3V, SineWave

### Crystek Part Number Guide

#### CVSS-940 X-155.520

#1 #2 #3 #4

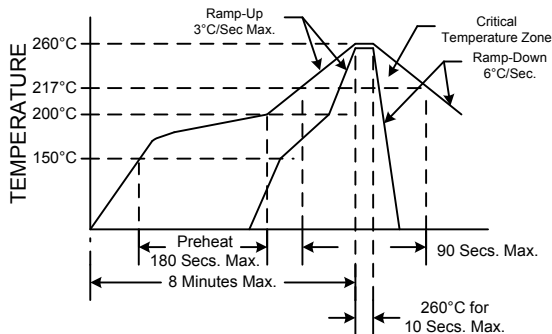
#1 Crystek 9x14 SMD SineWave VCXO  
#2 Model 940 = High Frequency 3.3V  
#3 Temp. Range: Blank = 0/70°C, X=-40/85°C  
#4 Frequency in MHz: 3 or 6 decimal places

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

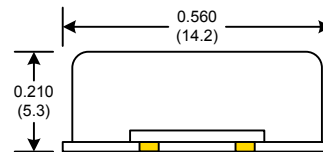
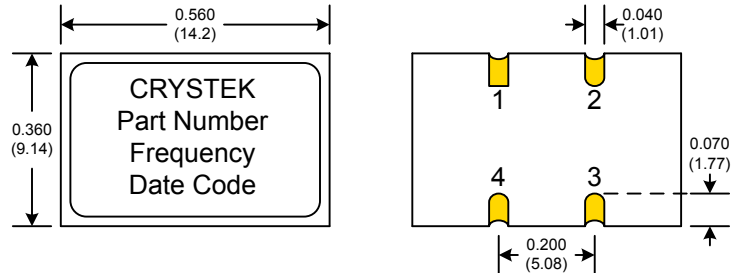
#### Standard Frequencies MHz

77.7600	167.3317
155.5200	212.5000
156.2500	250.0000
161.1328	311.0400
166.6286	

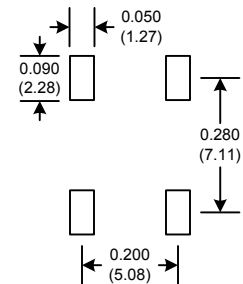
#### RECOMMENDED REFLOW SOLDERING PROFILE



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



#### SUGGESTED PAD LAYOUT



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

#### 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

Specification subject to change without notice.

TD-041205 Rev. C

Page 2 of 2