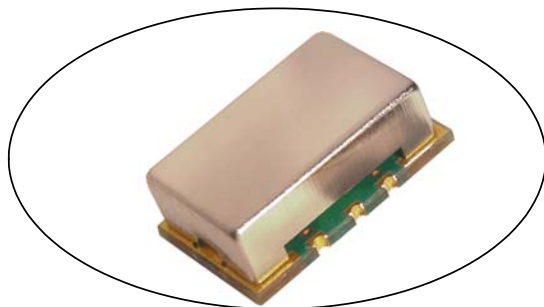




Differential LVPECL VCXO

Frequency Range:	50MHz to 250MHz
Temperature Range: (Option X)	0°C to 70°C -40°C to 85°C
Storage:	-55°C to 120°C
Input Voltage:	3.3V $\pm$ 0.3V
Control Voltage:	1.65V $\pm$ 1.65V
Settability At Nominal:	1.65V $\pm$ 0.25V
Input Current:	88mA Max
Output:	Differential LVPECL
Symmetry:	49/51% Typ, 45/55% Max
Rise/Fall Time:	550ps Max @ 20% to 80% Vcc
Pullability APR:	$\pm$ 50ppm Min.
Linearity:	$\pm$ 10% Max
Load: Terminated to Vdd-2V	into 50 ohms
Logic "1" Level:	Vcc-0.96V Min, Vcc-0.81V Max
Logic "0" Level:	Vcc-1.85V Min, Vcc-1.65V Max
Disable Time:	100ns Max
Start-up time:	2ms Typ., 10ms Max
Modulation BW:	>10KHz @ -3dB
Sub-harmonics:	none
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 Max:	
100Hz	-80 dBc/Hz
1KHz	-108 dBc/Hz
10KHz	-132 dBc/Hz
100KHz	-140 dBc/Hz
Aging:	<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 solution at a competitive price.

Specifications subject to change without notice.

TD-030705 Rev. C

Page 1 of 2



CVPD-940 Model
9X14 mm SMD, 3.3V, LVPECL



Differential LVPECL VCXO

Crystek Part Number Guide

CVPD-940 X-155.520

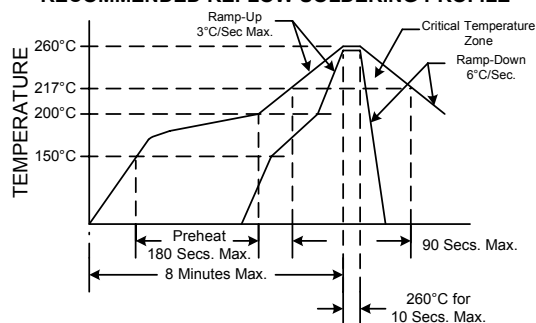
#1 #2 #3 #4

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

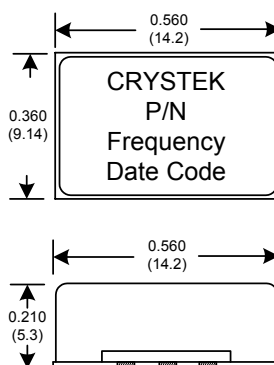
Example:
CVPD-940X-155.520 = 3.3V, -40/85°C, 155.520 MHz

Standard Frequencies MHz	
74.1758	161.1328
74.250	166.6286
77.7600	167.3317
155.5200	212.5000
156.2500	250.0000

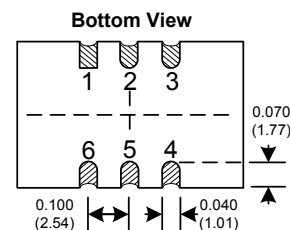
RECOMMENDED REFLOW SOLDERING PROFILE



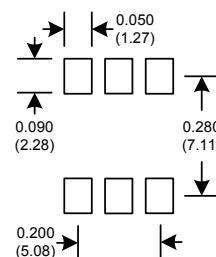
NOTE: Reflow Profile with 240°C peak also acceptable.



Pad	Connection
1	Volt Cont.
2	E/D
3	GND
4	OUT
5	COUT
6	Vdd



SUGGESTED PAD LAYOUT



Enable/Disable Function	
Pin 2	Output Pin
Open	Active
"0" level Vcc-1.620V Max	Active
"1" level Vcc-1.025V Min	Disabled
Disabled State:	
Pin 4 will assume a fixed level of logic "0"	
Pin 5 will assume a fixed level of logic "1"	

Mechanical:

Shock:
Solderability:
Vibration:
Solvent Resistance:
Resistance to Soldering Heat:

MIL-STD-883, Method 2002, Condition B
MIL-STD-883, Method 2003
MIL-STD-883, Method 2007, Condition A
MIL-STD-202, Method 215
MIL-STD-202, Method 210, Condition I or J

Environmental:

Thermal Shock:
Moisture Resistance:

MIL-STD-883, Method 1011, Condition A
MIL-STD-883, Method 1004

Packaging:

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

Specifications subject to change without notice.

TD-030705 Rev. C

Page 2 of 2



Crystek Crystals Corporation

12730 Commonwealth Drive • Fort Myers, FL 33913
239.561.3311 • 800.237.3061 • FAX: 239.561.1025 • www.crystek.com