

Differential LVPECL VCXO

CVPD-940 Model

9x14 mm SMD, 3.3V, LVPECL

Frequency Range:	50 MHz to 212.500 MHz
Temperature Range: (Option X)	0°C to 70°C -40°C to 85°C
Storage:	-45°C to 90°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% Typical, 45/55% Max @ zero crossing point
Rise/Fall Time:	550pSec Max (20% to 80%)
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:	100nSec Max
Start-up time:	2mSec Typical, 10mSec 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 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 solution at a competitive price.

Specifications subject to change without notice.

TD-030705 Rev. H

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Crystek Part Number Guide

CVPD - 940 - X - 155.520

#1 #2 #3 #4

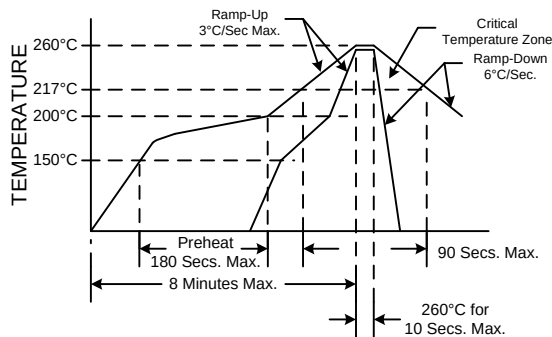
#1 Crystek SMD PECL VCXO
#2 Model 940 = 9x14 High Frequency 3.3V
#3 Temp. Range: Blank = 0/70°C, X = -40/85°C
#4 Frequency in MHz: 3 or 6 decimal places

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

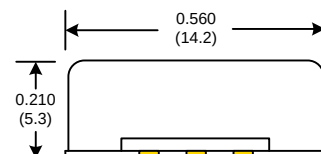
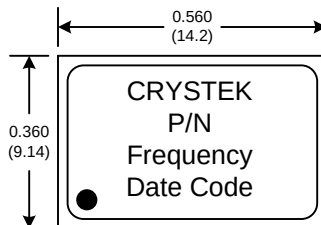
Standard Frequencies MHz

74.175800	161.132800
74.250	166.628600
77.760	167.331700
155.520	212.500
156.250	

RECOMMENDED REFLOW SOLDERING PROFILE

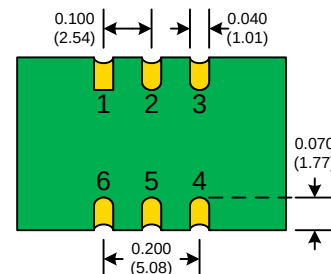


NOTE: Reflow Profile with 240°C peak also acceptable.

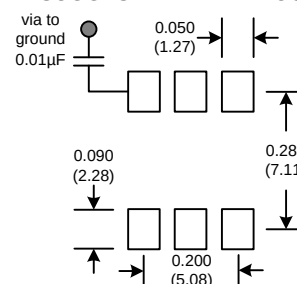


PIN	Function
1	Vcont
2	E/D
3	GND
4	OUT
5	COU
6	Vdd

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"	



SUGGESTED PAD LAYOUT



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

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