

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# Differential LVPECL VCXO

### CVPD-940 Model 9×14 mm SMD, 3.3V, LVPECL

Frequency Range: 50 MHz to 212.500 MHz

**Temperature Range:** 0°C to 70°C (Option X) -40°C to 85°C

Storage: -45°C to 90°C

 Input Voltage:
 3.3V ±0.3V

 Control Voltage:
 1.65V ±1.65V

 Settability At Nominal:
 1.65V ±0.25V

 Input Current:
 88mA Max

Output: Differential LVPECL

Symmetry: 49/51% Typical, 45/55% Max Rise/Fall Time: 550ps Max @ 20% to 80% Vcc

Pullability APR: ±50ppm Min Linearity: ±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 Typical, 10ms Max

**Modulation BW:** >10kHz @ -3dB

Sub-harmonics: none

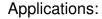
Period Jitter:(20,000 periods)<5ps RMS (1-sigma) Max</td>Phase Jitter:12kHz~20MHz<1ps RMS (1-sigma) Max,</td>

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<sup>st</sup> year, <2ppm every year thereafter



10 Gigabit Ethernet

OC48: Forward Error Correction

Broadband Networks SONET/SDH/DWD

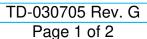
ATM

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.









### CVPD-940 Model

9×14 mm SMD, 3.3V, LVPECL

# **Crystek Part Number Guide**

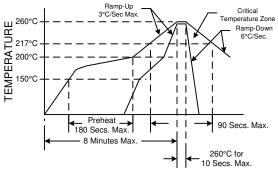
CVPD - 940 -155.520

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

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

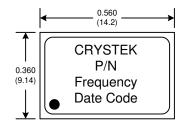
Standard Frequencies MHz		
74.175800	161.132800	
74.250	166.628600	
77.760	167.331700	
155.520	212.500	
156.250		

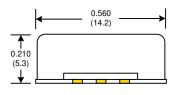
#### RECOMMENDED REFLOW SOLDERING PROFILE



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

# Differential LVPECL VCXO



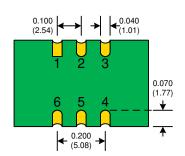


PIN	Function
1	Vcont
2	E/D
3	GND
4	OUT
5	COUT
6	Vdd

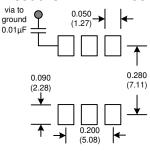
Enable/Disable Function		
Pin 2	Output pin	
Open "0" level Vcc-1.620V Max "1" level Vcc-1.025V Min	Active Active Disabled	
Disabled State:		

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: MIL-STD-883, Method 2002, Condition B

Solderability: MIL-STD-883, Method 2003

Vibration: MIL-STD-883, Method 2007, Condition A

MIL-STD-202, Method 215 Solvent Resistance:

MIL-STD-202, Method 210, Condition I or J Resistance to Soldering Heat:

### **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

Specifications subject to change without notice.

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