

# Differential LVPECL Voltage Controlled Crystal Oscillator

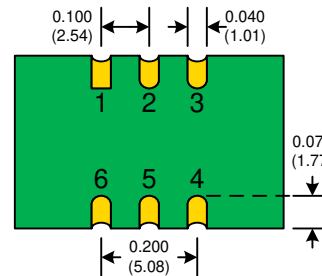
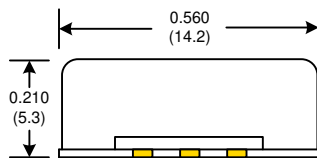
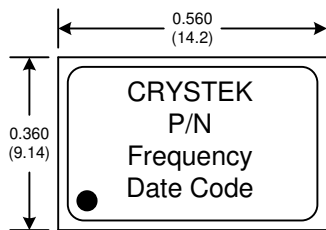
## CVPD-914 Model

9x14 mm SMD, 3.3V, LVPECL

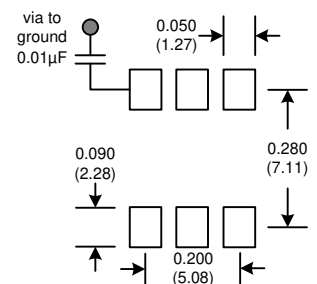
<b>Frequency Range:</b>	77.760 MHz to 200 MHz
<b>Temperature Range:</b>	0°C to 70°C
(Option M)	-20°C to 70°C
(Option X)	-40°C to 85°C
<b>Storage:</b>	-45°C to 90°C
<b>Input Voltage:</b>	3.3V ±0.3V
<b>Control Voltage:</b>	1.65V ±1.65V
<b>Settability At Nominal:</b>	1.65V ±0.25V
<b>Input Current:</b>	50mA Typical, 88mA Max
<b>Output:</b>	Differential LVPECL
Symmetry:	45/55% Max @ 50% Vdd
Rise/Fall Time:	1ns Max @ 20% to 80% Vdd
Pulling Range:	±50ppm APR Min (std)
Linearity:	±10% Max
Logic:	Terminated to Vdd-2V into 50 ohms
Temp. 0°C to 85°C	"0" = 1.490 Min, 1.680 Max
	"1" = 2.275 Min, 2.420 Max
Temp. -40°C to 0°C	"0" = 1.470 Min, 1.745 Max
	"1" = 2.215 Min, 2.420 Max
Enable/Disable Time	200ns Max
Jitter:	12 kHz to 80 MHz
Aging:	0.5psec Typical, 1psec RMS Max
	<5ppm 1 <sup>st</sup> year, <2ppm every year thereafter



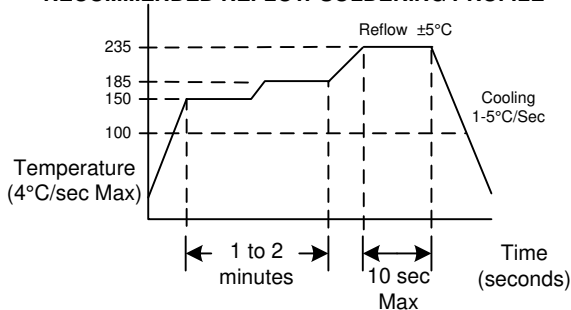
Designed to meet today's requirements for 3.3V Differential LVPECL applications. The CVPD-914 is produced using mesa crystal design to provide a very low noise, low jitter voltage controlled clock oscillator for demanding telecom and other applications.



### SUGGESTED PAD LAYOUT



### RECOMMENDED REFLOW SOLDERING PROFILE



260°C Reflow Profile NOT recommended for this product

### Crystek Part Number Guide

**CVPD-914 - X - 50 - 155.520**

#1 #2 #3 #4 #5

#1 Crystek 9x14 SMD PECL VCXO  
#2 Model 033 = 3.3V  
#3 Temp. Range: Blank = 0/70°C, M= -20/70°C, X= -40/85°C  
#4 Pulling: (see Table 1)  
#5 Frequency in MHz: 3 or 6 decimal places

#### Pulling (APR) Min.

Blank	± 100ppm
50 (std)	± 50ppm
25	± 25ppm
20	± 20ppm

Table 1

Example:  
CVPD-914X-50-155.520 = 3.3V, 45/55, -40/85°C, 50ppm APR, 155.520 MHz

PIN	Function
1	Volt Cont.
2	E/D
3	GND
4	OUT
5	COU
6	Vcc

Enable/Disable Function	
E/D Pin	Output pin
Open	Active
"1" level 0.7×Vcc Min	Active
"0" level 0.3×Vcc Max	High Z

Standard Frequencies	
77.760	161.1328
155.520	166.6286
156.250	167.3316

Specifications subject to change without notice.

TD-030401 Rev. L