

# CCPD-912 Model 9X14 mm SMD, 3.3V, LVPECL

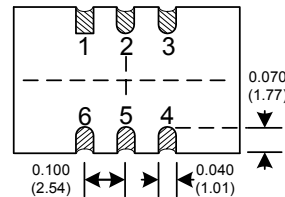
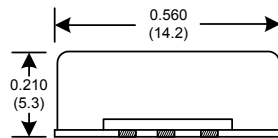
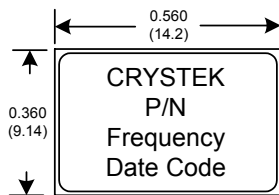


# Differential LVPECL Clock Oscillator

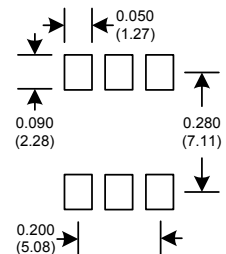


**Frequency Range:** 77.760MHz to 161.1328MHz  
**Frequency Stability:** ±20ppm to ±100ppm  
**Temperature Range:** 0°C to 70°C  
 (Option M) -20°C to 70°C  
 (Option X) -40°C to 85°C  
**Storage:** -55°C to 120°C  
**Input Voltage:** 3.3V ± 0.3V  
**Input Current:** 55mA Typ, 88mA Max  
**Output:** Differential LVPECL  
 Symmetry: 45/55% Max @ 50% Vdd  
 Rise/Fall Time: 1ns Max @ 20% to 80% Vdd  
 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  
 Disable Time 200ns Max  
 Start-up Time 1mSec Typ., 2mSec Max  
**Jitter:** 12KHz to 20MHz 0.45 psec Typ. @ 80 MHz, 1ps RMS Max  
 0.25 psec Typ. @ 160 MHz, 1ps RMS Max  
**Phase Noise:** 10Hz -65dBc Typical  
 100Hz -98dBc Typical  
 1KHz -125dBc Typical  
 10KHz -140dBc Typical  
 100KHz~100MHz -145dBc Typical  
**Aging:** <3ppm 1st/yr, <1ppm every year thereafter

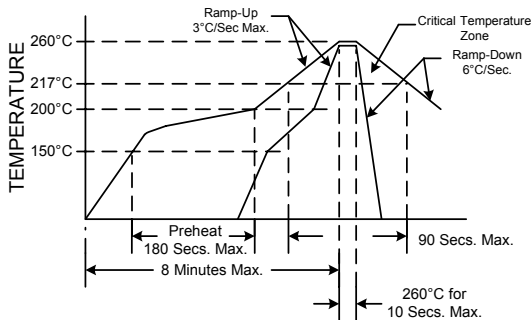
Designed to meet today's requirements for 3.3V Differential LVPECL applications. The CCPD-912 is a very low noise, low jitter clock oscillator for demanding telecom and other applications.



### SUGGESTED PAD LAYOUT



### RECOMMENDED REFLOW SOLDERING PROFILE



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

Pad	Connection
1	E/D
2	N/C
3	GND
4	OUT
5	COUT
6	Vdd

Table 2

### Crystek Part Number Guide

**CCPD-912 X - 25 - 155.520**

#1 Crystek SMD PECL Osc.  
 #2 Model 912 = 9x14mm smd 6pad 3.3V  
 #3 Temp. Range: Blank = 0/70°C, M= -20/70°C, X= -40/85°C  
 #4 Stability: (see Table 1)  
 #5 Frequency in MHz: 3 or 6 decimal places

#### Stability Indicator:

Blank (std) ± 100ppm  
 50 ± 50ppm  
 25 ± 25ppm  
 20 \*\* ± 20ppm  
 \*\* only available 0/70°C

Table 1

Example:  
 CCPD-912X-25-155.520 = 3.3V, 45/55, -40/85°C, 25ppm, 155.520 MHz

Tri-State Function	
E/D pin	Output pin
Open	Active
"1" level 0.7V Min	Active
"0" level 0.3V Max	High Z

Table 3

Specifications subject to change without notice.

TD-030403 Rev. D



**Crystek Crystals Corporation**

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