

**CCPD-915 Model**  
FR5 9X14 mm SMD, 3.3V, LVPECL



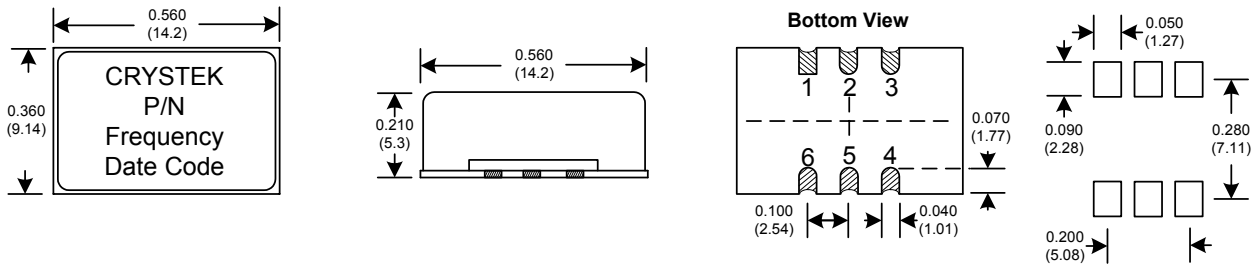
# Differential LVPECL Clock Oscillator



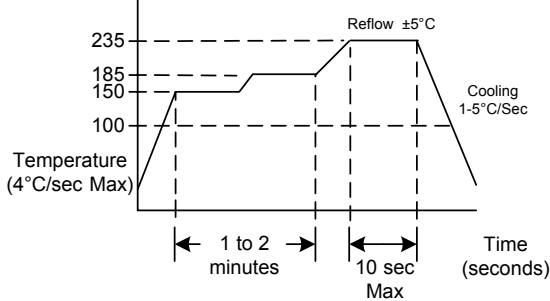
<b>Frequency Range:</b>	166.6286MHz to 330MHz
Standard Frequencies	See Table 3
<b>Frequency Stability:</b>	±50ppm & ±100ppm
<b>Temperature Range:</b>	0°C to 70°C
(Option M)	-20°C to 70°C
(Option X)	-40°C to 85°C
<b>Storage:</b>	-55°C to 120°C
<b>Input Voltage:</b>	3.3V ± 0.3V
<b>Input Current:</b>	55mA Typ, 88mA Max
<b>Output:</b>	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	1ms Typ., 2ms Max
<b>Jitter:</b>	12KHz to 20MHz
	0.45 psec Typ. @ 80 MHz, 1ps RMS Max
	0.25 psec Typ. @ 160 MHz, 1ps RMS Max
<b>Phase Noise:</b>	10Hz
	100Hz
	1KHz
	10KHz
	100KHz - 100MHz
	-65dBc Typical
	-98dBc Typical
	-125dBc Typical
	-140dBc Typical
	-145dBc Typical
<b>Aging:</b>	<3ppm 1st/yr, <2ppm every year thereafter

Designed using high frequency fundamental crystal design to meet today's requirements for 3.3V High Frequency Differential LVPECL applications. The CCPD-915 is a very low noise, low jitter clock oscillator for demanding telecom and other applications. Available on tape and reel in quantities of 500ea.

**SUGGESTED PAD LAYOUT**



**RECOMMENDED REFLOW SOLDERING PROFILE**



260°C Reflow Profile NOT recommended for this product

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

Table 2

Standard Frequencies	
166.6286	245.7600
167.3316	250.0000
212.5000	311.0400

Table 3

**Crystek Part Number Guide**

**CCPD-915 X - 50 - 166.6286**

#1	#2	#3	#4	#5
#1 Crystek SMD PECL Osc.	#2 Model 915 = 3.3V 9x14mm Mesa Fund. Osc.	#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

Table 1

Example:  
CCPD-915X-50-166.628600 = 3.3V, 45/55, -40/85°C, 50ppm, 166.628600 MHz

Standby Function		
Function pin 1	Output pin	Oscillator State
Open	Active	Normal Operation
"1" level .7Vcc Min	Active	Normal Operation
"0" level .3Vcc Max	High Z	Stopped

Specifications subject to change without notice.

TD-030406 Rev. F