

**CCPD-940 Model**  
9x14 mm SMD, **3.3V, LVPECL**



<b>Frequency Range:</b>	77.760MHz to 212.500MHz
<b>Stability vs. Temperature:</b>	±20,±25±50±100
<b>Temperature Range:</b>	0°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>	88mA Max
<b>Output:</b>	Differential LVPECL
Symmetry:	49/51% Typ, 45/55% Max
Rise/Fall Time:	550ps Max @ 20% to 80% Vcc
Linearity:	± 10% Max
Load: Terminated to	into 50 ohms
Vdd-2V	Vcc-0.96V Min, Vcc-0.81V Max
Logic "1" Level:	Vcc-1.85V Min, Vcc-1.65V Max
Logic "0" Level:	100ns Max
Disable Time:	2ms Typ., 10ms Max
Start-up time:	>10KHz @ -3dB
<b>Modulation BW:</b>	none
<b>Sub-harmonics:</b>	<5ps RMS (1-sigma) Max
<b>Period Jitter:</b> (20,000 periods)	<1ps RMS (1-sigma) Max,
<b>Phase Jitter:</b> 12kHz~20MHz	<1ps RMS (1-sigma) Max,
50kHz~80MHz	-80 dBc/Hz
<b>Phase Noise Max:</b> 100Hz	-108 dBc/Hz
1kHz	-132 dBc/Hz
10kHz	-140 dBc/Hz
100kHz	<3ppm 1st/yr, <1ppm every year thereafter
<b>Aging:</b>	

**Applications:**

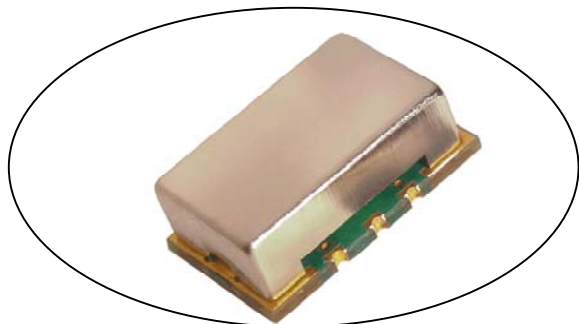
10 Gigabit Ethernet  
OC48: Forward Error Correction  
Broadband Networks  
SONET/SDH/DWD  
ATM  
Network/switch  
Telecom

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-040901 Rev. C

Page 1 of 2



# Differential LVPECL Clock Oscillator

## CCPD-940 Model 9x14 mm SMD, 3.3V, LVPECL

### Crystek Part Number Guide

CCPD-940 X - 25 - 155.520

#1 #2 #3 #4 #5

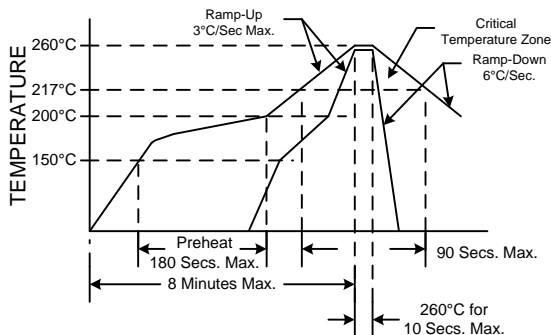
#1 Crystek 9x14 SMD PECL VCXO  
#2 Model 940 = High Frequency 3.3V  
#3 Temp. Range: Blank = 0/70°C, X=-40/85°C  
#4 Stability = 20ppm, 25ppm, 50ppm, Blank=100ppm  
#4 Frequency in MHz: 3 or 6 decimal places

Example:  
CCPD-940X-25-155.520 = 3.3V, -40/85°C, 25ppm, 155.520 MHz

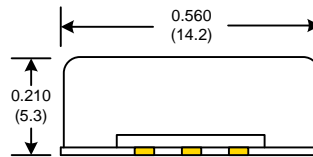
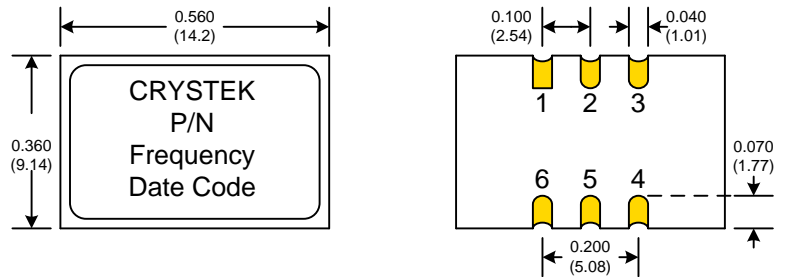
#### Standard Frequencies MHz

77.7600	167.3317
155.5200	200.0000
156.2500	212.5000
161.1328	
166.6286	

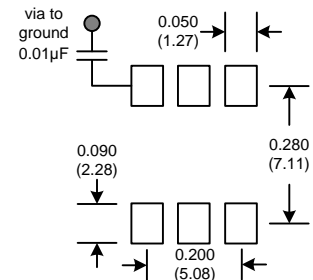
#### RECOMMENDED REFLOW SOLDERING PROFILE



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



#### SUGGESTED PAD LAYOUT



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

Enable/Disable Function	
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"	

#### 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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Page 2 of 2