



Frequency Range:	77.760MHz to 212.500MHz
Stability vs. Temperature:	±20,±25±50±100
Temperature Range: (Option X)	0°C to 70°C -40°C to 85°C
Storage:	-55°C to 120°C
Input Voltage:	3.3V ± 0.3V
Input Current:	88mA Max
Output:	Differential LVPECL
Symmetry:	49/51% Typ, 45/55% Max
Rise/Fall Time:	550ps Max @ 20% to 80% Vcc
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 Typ., 10ms Max
Modulation BW:	>10KHz @ -3dB
Sub-harmonics:	none
Period Jitter: (20,000 periods)	<5ps RMS (1-sigma) Max
Phase Jitter: 12KHz~20MHz	<1ps RMS (1-sigma) Max,
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 1st/yr, <1ppm every year thereafter



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.

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CCPD-940 Model
9X14 mm SMD, 3.3V, LVPECL XO



Differential LVPECL XO

Crystek Part Number Guide

CCPD-940 X-25-155.520

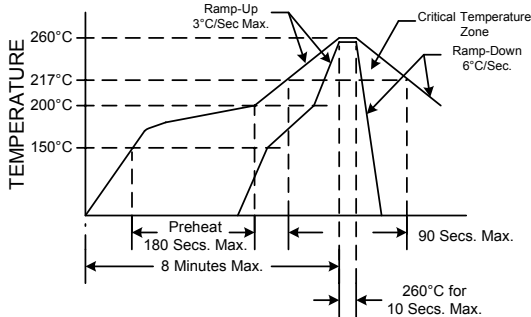
#1 #2 #3 #4 #5

- #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

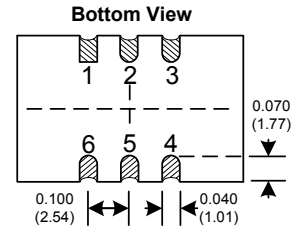
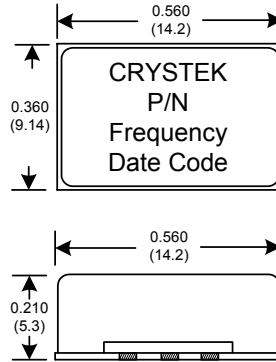
Example:
CCPD-940X-25-155.520 = 3.3V, -40/85°C, 25ppm, 155.520 MHz

Standard Frequencies MHz	
77.7600	167.3317
155.5200	200.0000
156.2500	212.5000
161.1328	
166.6286	

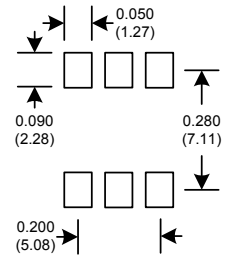
RECOMMENDED REFLOW SOLDERING PROFILE



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



SUGGESTED PAD LAYOUT



Pad	Connection
1	No Conn.
2	E/D
3	GND
4	OUT
5	COU
6	Vdd

Enable/Disable 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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