

Differential LVPECL Clock Oscillator

CCPD-940 Model

9x14 mm SMD, 3.3V, LVPECL

Frequency Range:	151.000 MHz to 212.500 MHz
Stability vs. Temperature (ppm):	±20, ±25, ±50, ±100
Temperature Range:	0°C to 70°C
(Option X)	-40°C to 85°C
Storage:	-45°C to 90°C
Input Voltage:	3.3V ±0.3V
Input Current:	88mA Max
Output:	Differential LVPECL
Symmetry:	49/51% Typical, 45/55% Max @ zero crossing point
Rise/Fall Time:	550ps Max (20% to 80%)
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 Typical, 10ms Max
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 1 st year, <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 & High Q crystal technology to provide a Low Noise, Low Jitter Crystal Oscillator solution at a competitive price.



Rev: N
Date: 26-Jan-2023
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Crystek Part Number Guide

CCPD-940 X - 25 - 155.520

#1 #2 #3 #4 #5

#1 Crystek 9×14 SMD PECL
#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
#5 Frequency in MHz: 3 or 6 decimal places

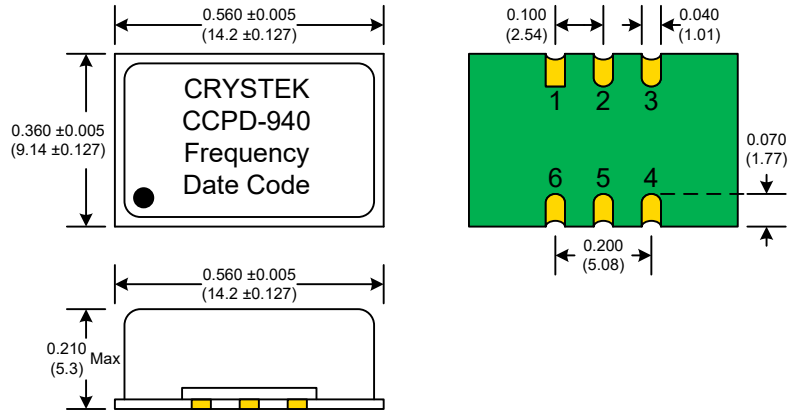
Example:
CCPD-940X-25-155.520 = 3.3V, -40/85°C, 25ppm, 155.520 MHz

Standard Frequencies MHz

151.0000	166.6286
155.5200	167.3317
156.2500	200.0000
161.1328	212.5000

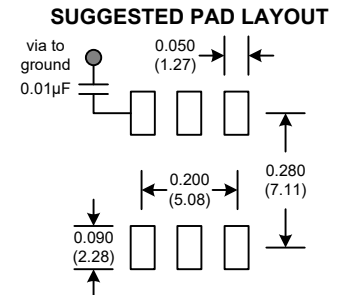
RECOMMENDED REFLOW SOLDERING PROFILE 900034 (See App Note listed on website)

<http://www.crystek.com/specification/reflow/900034.pdf>



PAD FINISH: Immersion Gold (ENIG); 5 micro inches maximum

PIN	Function
1	NC
2	E/D
3	GND
4	OUT
5	COUT
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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