

CCPD-034 5×7mm SMD LVPECL Clock Oscillator

CCPD-034 Model
5×7 mm SMD, 3.3V, LVPECL



Model CCPD-034 is a 162.000 MHz to 250.000 MHz LVPECL Clock Oscillator operating at 3.3 Volts. The oscillator utilizes a High Q crystal design providing very low Jitter and Phase Noise. No Sub-Harmonics are present in the Output Signal.



5×7mm SMD

Applications:

**Digital Video
SONET/SDH/DWDM
Storage Area Networks
Broadband Access
Ethernet, Gigabit Ethernet**

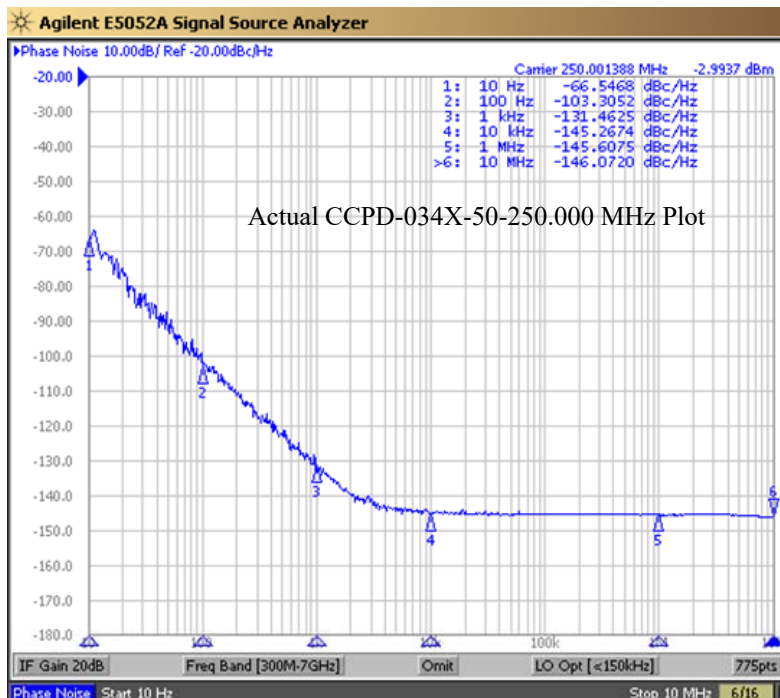
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CCPD-034 Model

5×7 mm SMD, 3.3V, LVPECL

Frequency Range:	162.000 MHz to 250.000 MHz
Frequency Stability Options (ppm):	±20, ±25, ±50, ±100
Temperature Range:	(standard) 0°C to +70°C
	-20°C to +70°C
	(Option M)
	(Option X)
Storage:	-45°C to 90°C
Input Voltage:	3.3V ±0.3V
Input Current:	55mA Typical, 88mA Max
Standby Current:	30uA Max
Output:	Differential LVPECL
	Symmetry: 45/55% Max @ zero crossing point
	Rise/Fall Time: 1ns Max (20% to 80%)
Logic: Terminated to Vdd-2V into 50 Ω	
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
	200ns Max
Disable Time:	2ms Max
Start-up Time:	0.5ps Typical, 1ps RMS Max
Phase Jitter: 12kHz~80MHz	
Phase Noise: (See Plot Below)	
Sub-harmonics:	None
Aging:	<3ppm 1 st year, <1ppm every year thereafter



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Specifications subject to change without notice.

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Crystek Part Number Guide

CCPD - 034 X - 50 - 250.000

#1 #2 #3 #4 #5

#1 Crystek LVPECL Osc.
#2 Model 034
#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

Example:

CCPD-034X-50-250.000
3.3V, -40/85°C, ±50ppm, 250.000 MHz

Stability Indicator

Blank	± 100ppm
50	± 50ppm
25	± 25ppm
20*	± 20ppm

*not available in -40/85

Table 1

Standard Frequencies

(±50ppm, 0/70°C)

200.000 MHz
212.500 MHz
250.000 MHz

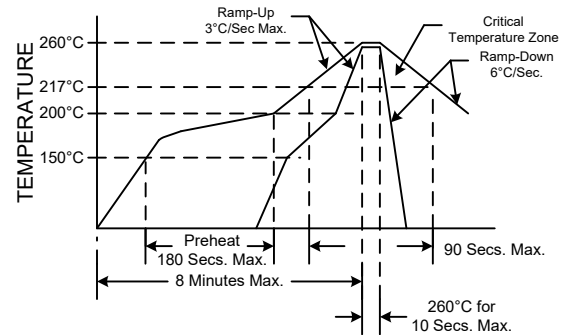
Mechanical:

Shock: MIL-STD-883, Method 2002, Condition B
Solderability: MIL-STD-883, Method 2003
Vibration: MIL-STD-883, Method 2007, Condition A
Solvent Resistance: MIL-STD-202, Method 215
Resistance to Soldering Heat: MIL-STD-202, Method 210, Condition I or J

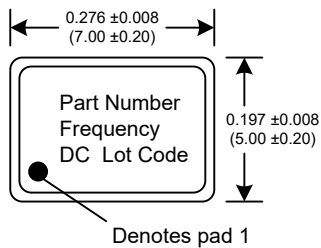
Environmental:

Thermal Shock: MIL-STD-883, Method 1011, Condition A
Moisture Resistance: MIL-STD-883, Method 1004

RECOMMENDED REFLOW SOLDERING PROFILE

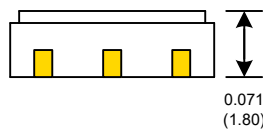


NOTE: Reflow Profile with 240°C peak also acceptable.

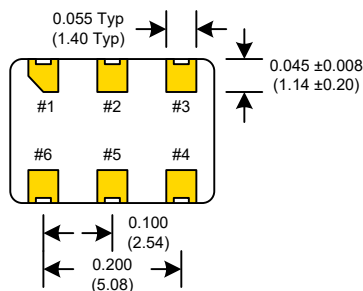


Dimensions inches (mm)

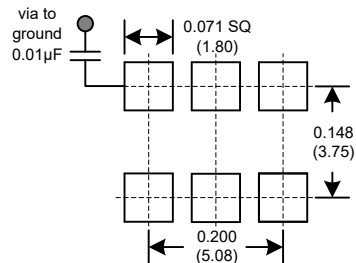
All dimensions are Max unless otherwise specified.



Enable/Disable	
Function pin 1	Output pin
Open or N/C	Active
"1" level 0.7×V _{dd} Min	Active
"0" level 0.3×V _{dd} Max	High Z



SUGGESTED PAD LAYOUT



0.01µF Bypass Capacitor Recommended

PIN	Connection
1	Enable/Disable
2	N/C
3	GND
4	Output
5	Comp Output
6	V _{cc}

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