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CCPD-033 5×7mm SMD LVPECL Clock Oscillator

CCPD-033 Model
5×7 mm SMD, 3.3V, LVPECL



Model CCPD-033 is a 77.760 MHz to 161.132800 MHz LVPECL Clock Oscillator operating at 3.3 Volts. The oscillator utilizes a High Q Third Overtone 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**

Rev: Y
Date: 26-Aug-2021
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CRYSTEK
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CCPD-033 5×7mm SMD LVPECL Clock Oscillator



CCPD-033 Model

5×7 mm SMD, 3.3V, LVPECL

Frequency Range:
Frequency Stability Options(ppm):
Temperature Range:
(Option M)
(Option X)
Storage:
Input Voltage:
Input Current:
Standby Current:
Output:
Symmetry:
Rise/Fall Time:
Output Drive Capability (see Note 1)
Logic:
Temp. 0°C to 85°C

Temp. -40°C to 0°C

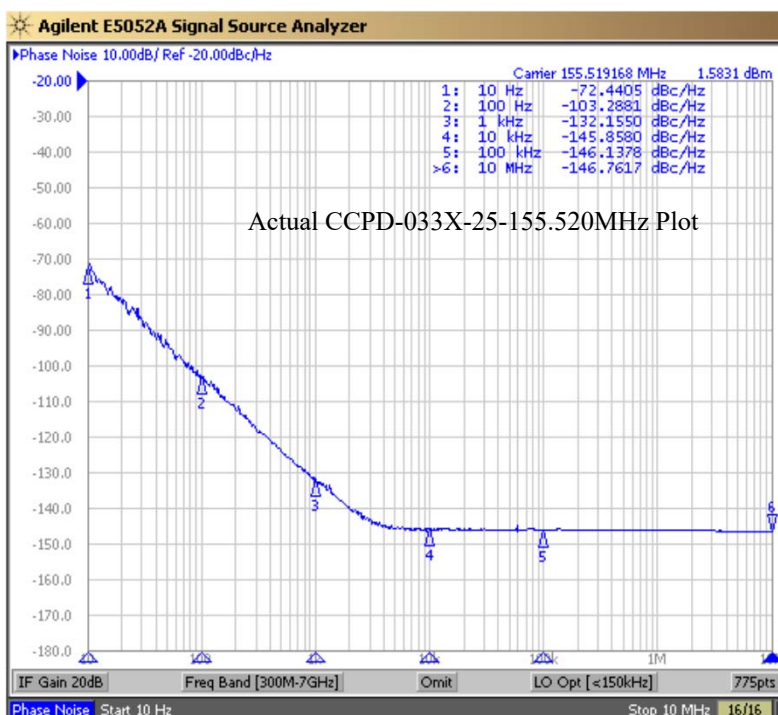
Disable Time:
Start-up Time:
Phase Jitter: 12kHz~80MHz
Phase Noise: (See Plot Below)
Sub-harmonics:
Aging:

77.760 MHz to 161.132800 MHz
±20, ±25, ±50, ±100
(standard) 0°C to +70°C
-20°C to +70°C
-40°C to +85°C
-45°C to 90°C
3.3V ± 0.3V
55mA Typical, 88mA Max
30uA Max
Differential LVPECL
45/55% Max @ zero crossing point
1ns Max (20% to 80%)
Zero Impedance Bipolar Process
Terminated to Vdd-2V into 50 Ω
“0”=1.490 Min, 1.680 Max
“1”=2.275 Min, 2.420 Max
“0”=1.470 Min, 1.745 Max
“1”=2.215 Min, 2.420 Max
200ns Max
2ms Max
0.5ps Typical, 1ps RMS Max

None
<3ppm 1st year, <1ppm every year thereafter

Note 1:

Internal Driver will change to Finite Impedance CMOS Process. Consult factory for additional details and changeover date.



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Crystek Part Number Guide

CCPD - 033 X - 25 - 155.520

#1 #2 #3 #4 #5

#1 Crystek LVPECL Osc.
#2 Model 033
#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-033X-25-155.520
3.3V, -40/85°C, ±25ppm, 155.520 MHz

Stability Indicator

Blank	± 100ppm
50	± 50ppm
25	± 25ppm
20*	± 20ppm
*not available in -40/85	

Table 1

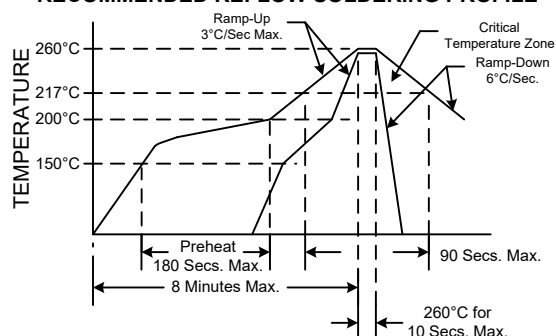
Mechanical:

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

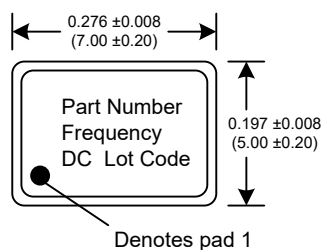
Environmental:

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

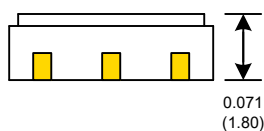
RECOMMENDED REFLOW SOLDERING PROFILE



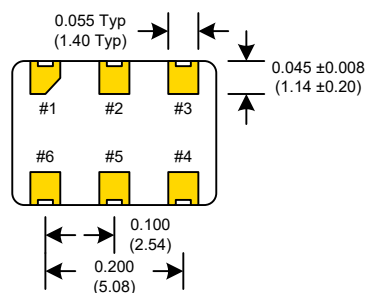
NOTE: Reflow Profile with 240°C peak also acceptable.



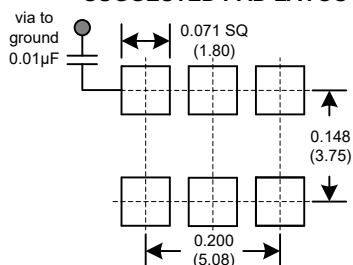
Dimensions inches (mm)
All dimensions are Max unless otherwise specified.



Enable/Disable	
Function pin 1	Output pin
Open or N/C	Active
"1" level 0.7×Vdd Min	Active
"0" level 0.3×Vdd Max	High Z



SUGGESTED PAD LAYOUT



0.01uF Bypass Capacitor Recommended

PIN	Connection
1	Enable/Disable
2	N/C
3	GND
4	Output
5	Comp Output
6	Vcc

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Authorized Distributor

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Crystek:

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