

CCPDFI-034 5×7mm SMD LVPECL Clock Oscillator

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



Model CCPDFI-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**

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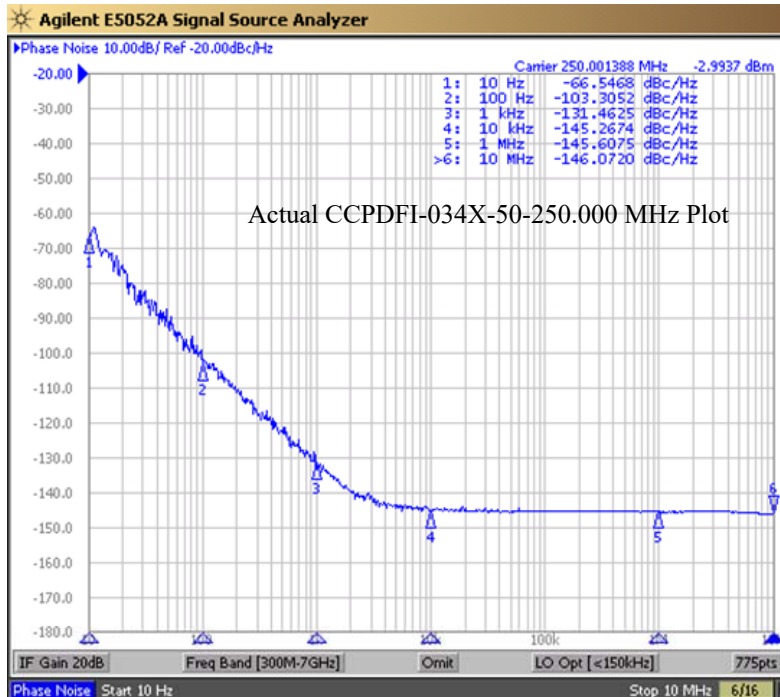
Frequency Range:
Frequency Stability Options (ppm):
Temperature Range:
 (Option M)
 (Option X)
Storage:
Input Voltage:
Input Current:
Standby Current:
Output:
 Symmetry:
 Rise/Fall Time:
 Output Drive Capability:
Logic:
 Temp. 0°C to 85°C

 Temp. -40°C to 0°C

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

162.000 MHz to 250.000 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%)
 Finite Impedance CMOS 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



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Crystek Part Number Guide

CCPDFI - 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:

CCPDFI-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

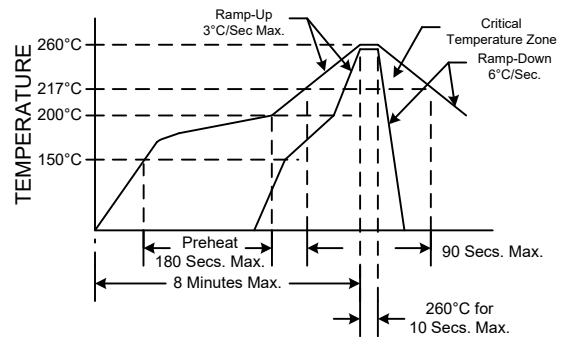
Mechanical:

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

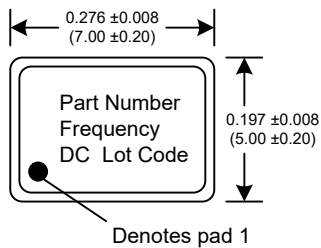
Environmental:

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

RECOMMENDED REFLOW SOLDERING PROFILE

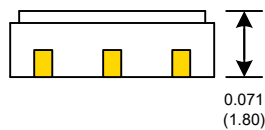


NOTE: Reflow Profile with 240°C peak also acceptable.



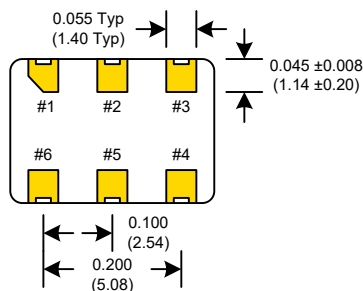
Dimensions inches (mm)

All dimensions are Max unless otherwise specified.

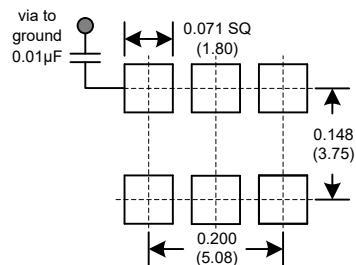


Enable/Disable

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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