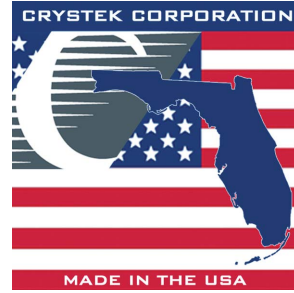
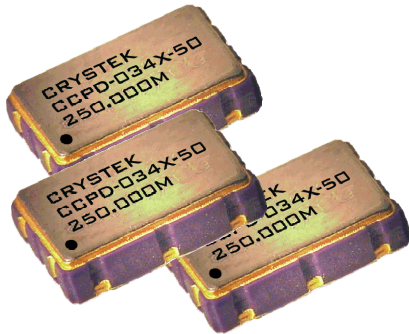




CCPD-034 Model
5x7 mm SMD, 3.3V, LVPECL



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 Third Overtone crystal design providing very low Jitter and Phase Noise. No Sub-Harmonics are present in the Output Signal.



5x7mm SMD

Applications:

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

| |
|-----------------|
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CCPD-034 Model

5x7 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 |
| (Option M) | -20°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: | 55mA Typical, 88mA Max |
| Output: | Differential LVPECL |
| Symmetry: | 45/55% Max @ 50% Vdd |
| Rise/Fall Time: | 1nsec Max @ 20% to 80% Vdd |

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

Disable Time: 200nSec Max

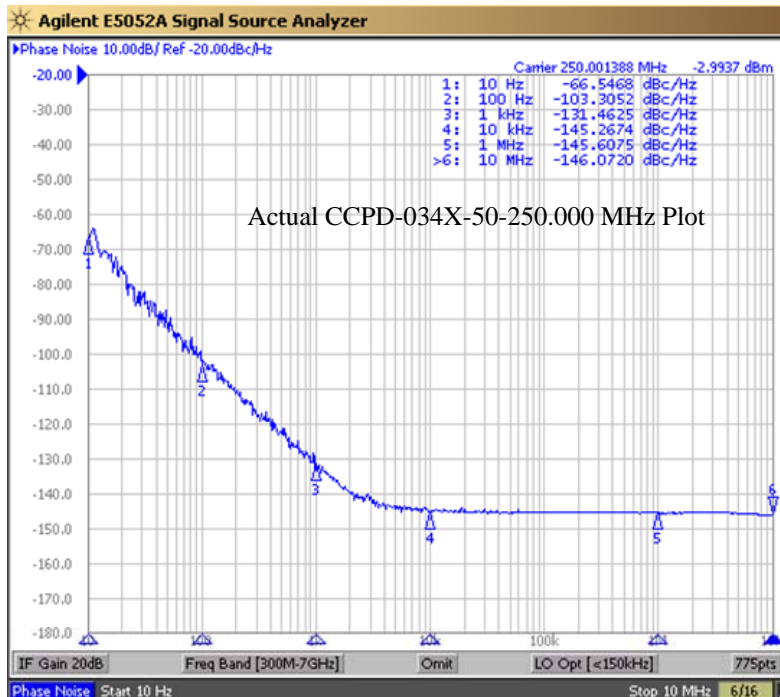
Enable Time: 1mSec Typical, 2mSec Max

Phase Jitter: 12kHz~80MHz **0.5psec Typical, 1psec RMS Max**

Phase Noise: (See Plot Below)

Sub-harmonics: None

Aging: <3ppm 1st year, <1ppm every year thereafter



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CCPD-034 Model
5x7 mm SMD, 3.3V, LVPECL

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

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

| Standard Frequencies | |
|----------------------|--|
| (±50ppm, 0/70°C) | |
| 200.000 MHz | |
| 212.500 MHz | |
| 250.000 MHz | |

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

Table 1

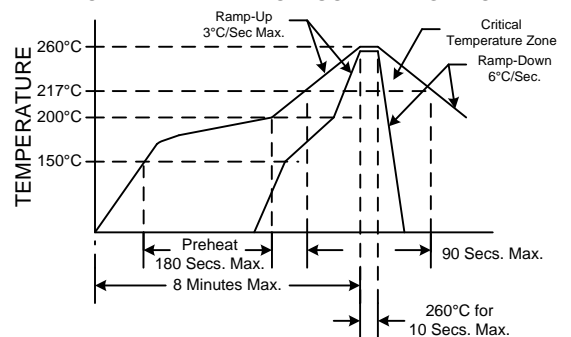
Mechanical:

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

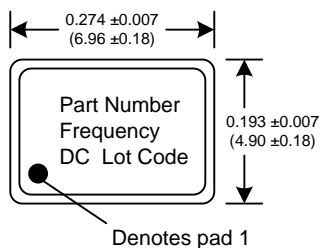
Environmental:

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

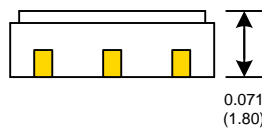
RECOMMENDED REFLOW SOLDERING PROFILE



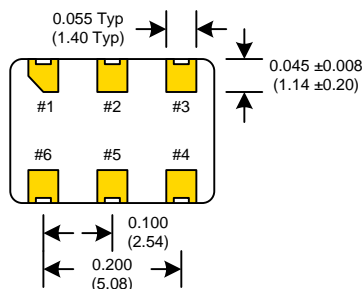
NOTE: Reflow Profile with 240°C peak also acceptable.



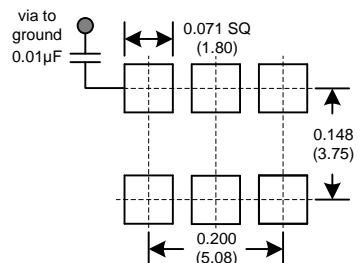
Dimensions inches (mm)
All dimensions are Max unless otherwise specified.



| Tristate Function | |
|-----------------------|------------|
| Function pin 1 | Output pin |
| Open or N/C | Active |
| "1" level 0.7xVdd Min | Active |
| "0" level 0.3xVdd 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 | Vcc |

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