



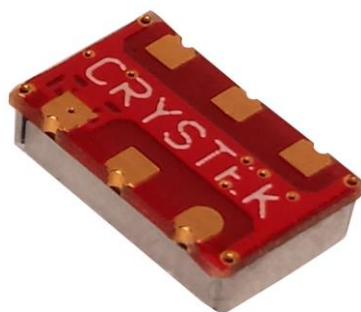
CRYSTEK
CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

CCPD-575 Model
5×7.5 mm SMD, 3.3V, LVPECL

CCPD-575 5×7.5mm SMD Ultra-Low Phase Noise LVPECL Clock Oscillator



Model CCPD-575 has an industry leading phase noise for an LVPECL oscillator. The noise floor is typically @ -162 dBc/Hz! This is at least 15 dB lower phase noise than most LVPECL oscillators on the market today. Close-in phase noise is also excellent @ -90 dBc/Hz for the 100 MHz variant. This overall ultra-low phase noise translates to a typical phase jitter of 65 fs RMS (12 kHz to 20 MHz) at 156.250 MHz.



5×7.5mm SMD

Applications:

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

Rev: N
Date: 15-Aug-2016
Page 1 of 3



CRYSTEK
CORPORATION

12730 COMMONWEALTH DRIVE • FORT MYERS, FLORIDA 33913
PHONE: 239-561-3311 • 800-237-3061
FAX: 239-561-1025 • WWW.CRYSTEK.COM



CRYSTEK
CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

CCPD-575 Model

5×7.5 mm SMD, 3.3V, LVPECL

Frequency Range:

Frequency Stability Options:

Operating Temperature Range:

Storage Temperature Range:

Input Voltage:

Input Current:

Output:

Symmetry:

Rise/Fall Time:

Logic Terminated to Vdd-2V into 50 Ω:

Output Low Voltage:

Output High Voltage:

Disable Time:

Enable Time:

Phase Jitter: 12kHz~20MHz

Phase Noise: (See Plot Below)

Sub-harmonics:

Aging:

CCPD-575 5×7.5mm SMD

Ultra-Low Phase Noise

LVPECL Clock Oscillator

50.000 MHz to 156.250 MHz*

±20ppm, ±50ppm

-40°C to +85°C

-45°C to 90°C

3.3V ± 0.3V

80mA Typical, 88mA Max

Differential LVPECL

40/60% Max @ zero crossing point

300 ps Max (20% to 80%)

"0"=1.37 Min, 1.74 Max

"1"=2.05 Min, 2.54 Max

200 ns Max

200 ms Max

65 fs RMS Typical @ 156.250 MHz

None

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

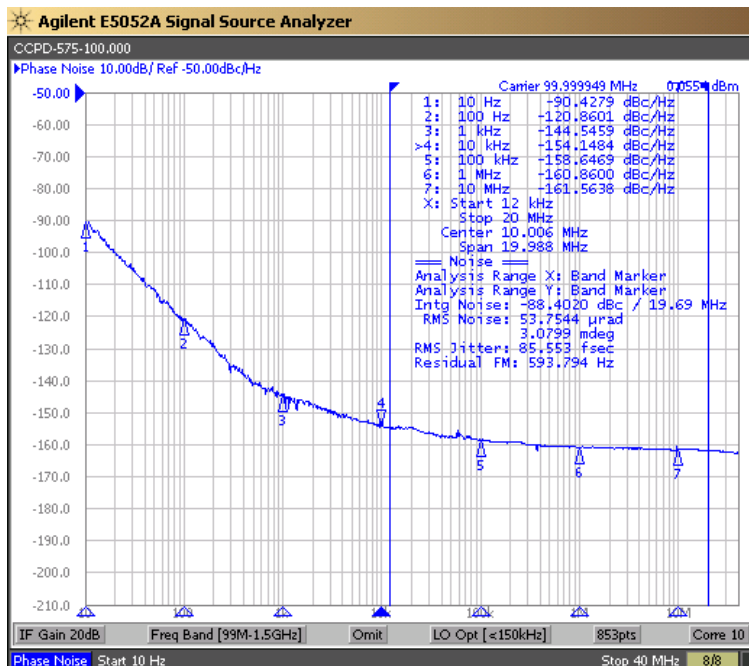
*Standard Frequencies
(MHz)

80.000
100.000
122.880
125.000
156.250

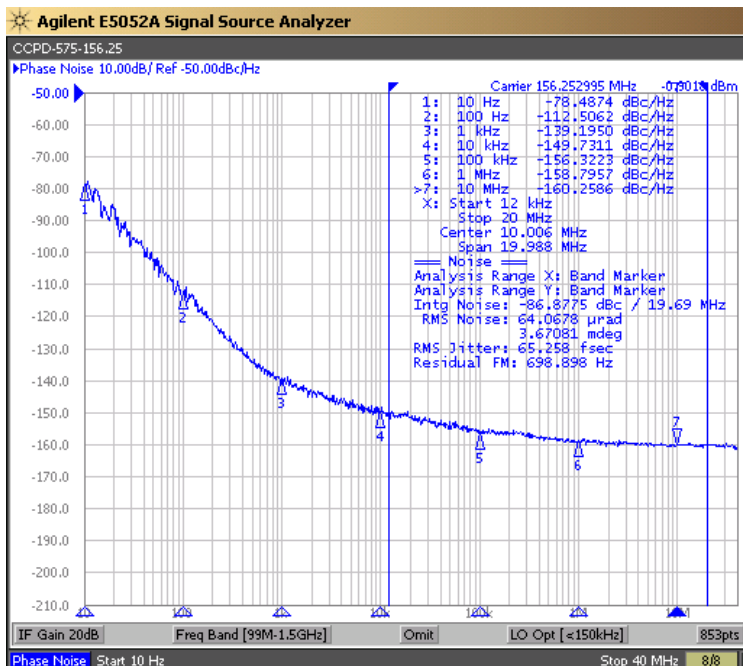


Part Number Example: CCPD-575X-20-100.000 3.3V, -40/85°C, ±20ppm, 100.000 MHz

100.000 MHz LVPECL 3.3V



156.250 MHz LVPECL 3.3V



Rev: N

Date: 15-Aug-2016

Page 2 of 3



CRYSTEK
CORPORATION

12730 COMMONWEALTH DRIVE • FORT MYERS, FLORIDA 33913
PHONE: 239-561-3311 • 800-237-3061
FAX: 239-561-1025 • WWW.CRYSTEK.COM



CRYSTEK
CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

CCPD-575 5×7.5mm SMD

Ultra-Low Phase Noise

LVPECL Clock Oscillator



CCPD-575 Model
5×7.5 mm SMD, 3.3V, LVPECL

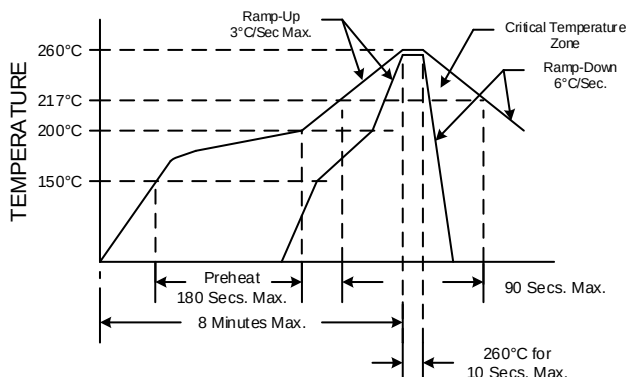
Mechanical:

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

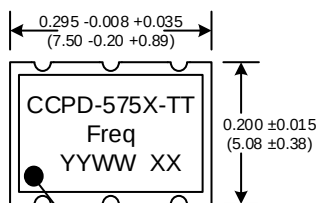
Environmental:

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.



Denotes pad 1

TT=Tolerance YYWW=Date Code XX=Lot Code

Dimensions inches (mm)

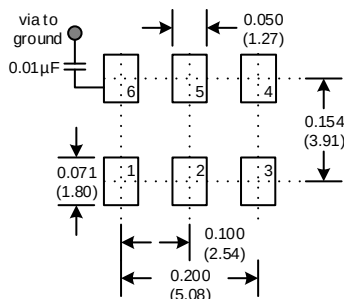
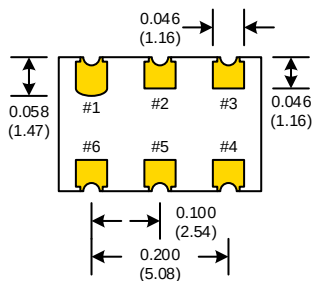
All dimensions are Max unless otherwise specified.



Enable/Disable

Function pin 1	Output pin
Open or N/C "1" level 2.0V Min "0" level 0.8V Max	Active Active High Z

SUGGESTED PAD LAYOUT



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

Rev: N

Date: 15-Aug-2016

Page 3 of 3



CRYSTEK
CORPORATION

12730 COMMONWEALTH DRIVE • FORT MYERS, FLORIDA 33913
PHONE: 239-561-3311 • 800-237-3061
FAX: 239-561-1025 • WWW.CRYSTEK.COM