



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

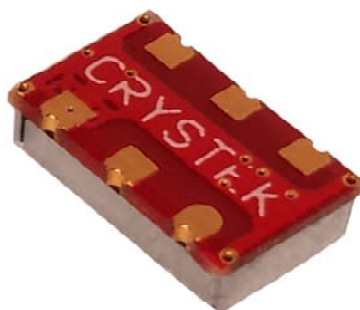
CCPD-575 5×7.5mm SMD Ultra-Low Phase Noise LVPECL Clock Oscillator



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: U
Date: 16-Sep-2021
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16850 ORIDLE ROAD • FORT MYERS, FLORIDA 33912
PHONE: 239-561-3311 • 800-237-3061
WWW.CRYSTEK.COM



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CCPD-575 5×7.5mm SMD

Ultra-Low Phase Noise

LVPECL Clock Oscillator

CCPD-575 Model
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Frequency Range:
Frequency Stability Options:
Operating Temperature Range:
Storage Temperature Range:
Input Voltage:
Input Current:
Output:

50.000 MHz to 156.250 MHz*
±20ppm, ±25ppm, ±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%)
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:

*Standard Frequencies (MHz)
80.000
100.000
122.880
125.000
156.250

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:

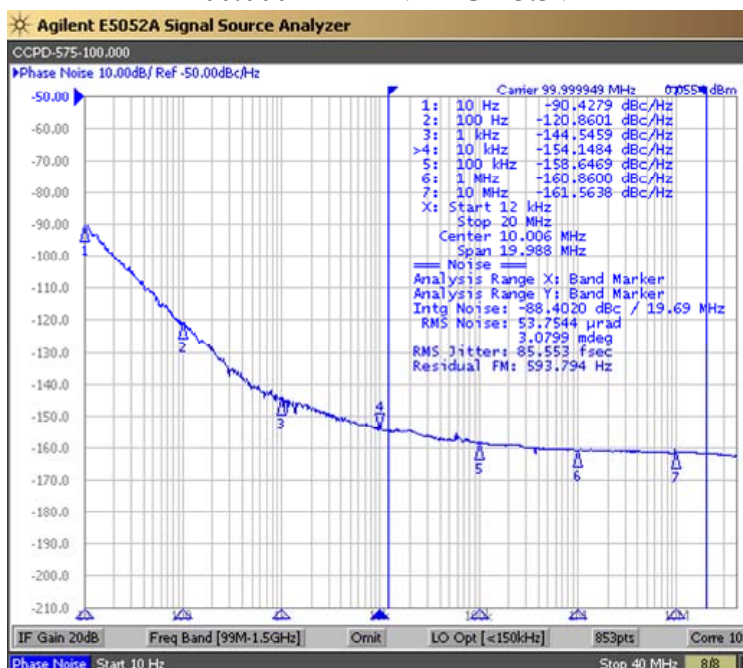
None

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



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

100.000 MHz LVPECL 3.3V



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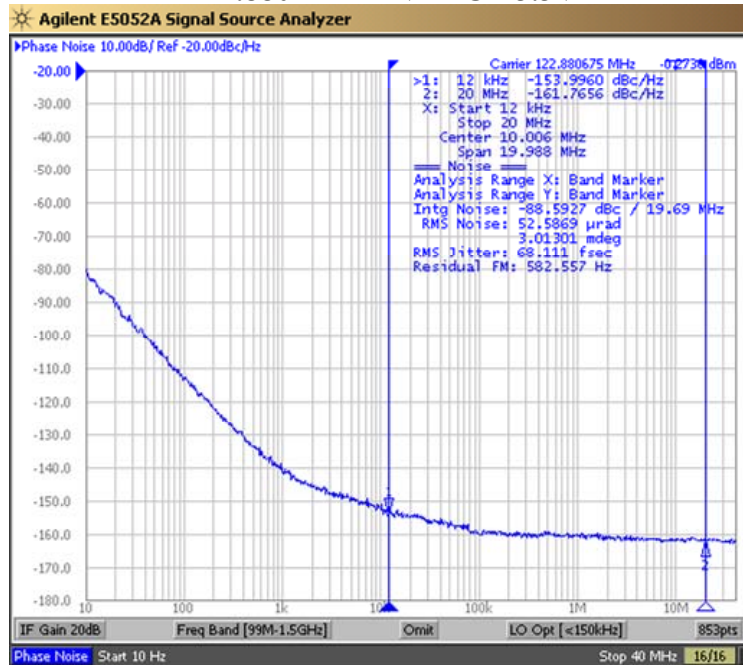
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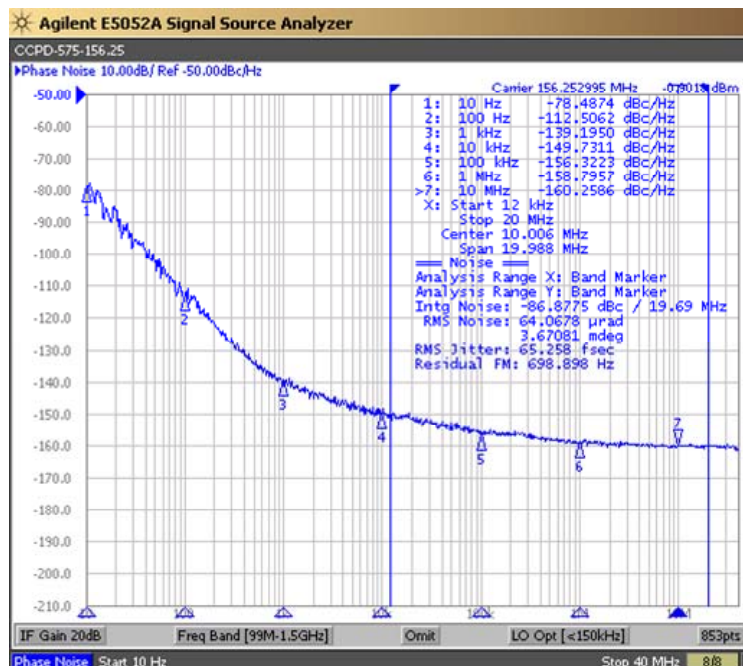
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122.880 MHz LVPECL 3.3V



156.250 MHz LVPECL 3.3V



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Ultra-Low Phase Noise

LVPECL Clock Oscillator



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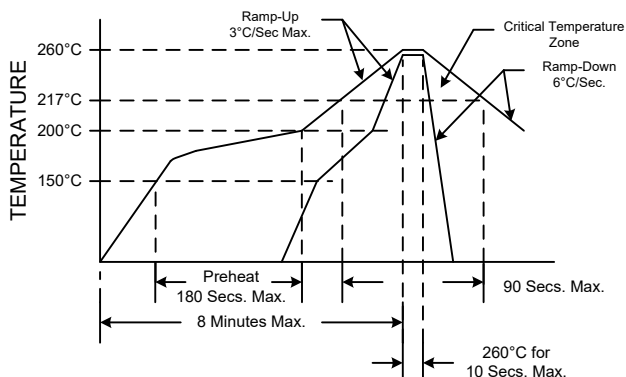
Mechanical:

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

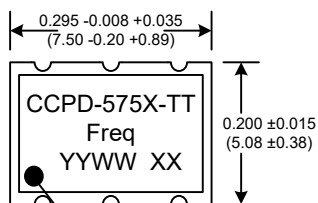
Environmental:

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

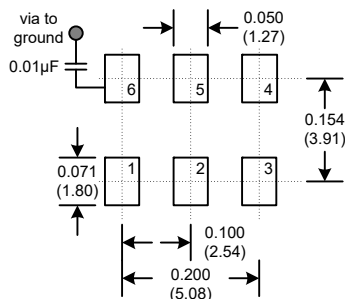
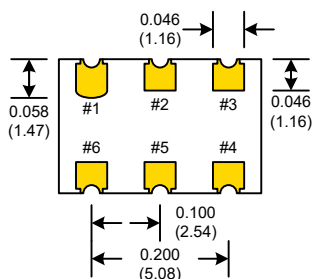
Dimensions inches (mm)

All dimensions are Max unless otherwise specified.



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

SUGGESTED PAD LAYOUT



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

PAD FINISH: Immersion Gold (ENIG); 5 micro inches maximum

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