

CCPD-575 Model
5x7.5 mm SMD, 3.3V, LVPECL

CCPD-575 5x7.5mm 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.



5x7.5mm SMD



Applications:

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

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Frequency Range:
Frequency Stability:
Operating Temperature Range:
Storage Temperature Range:
Input Voltage:
Input Current:
Output:

50.000 MHz to 156.250 MHz*
±20ppm
-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

*Standard Frequencies (MHz)
80.000
100.000
122.880
125.000
156.250

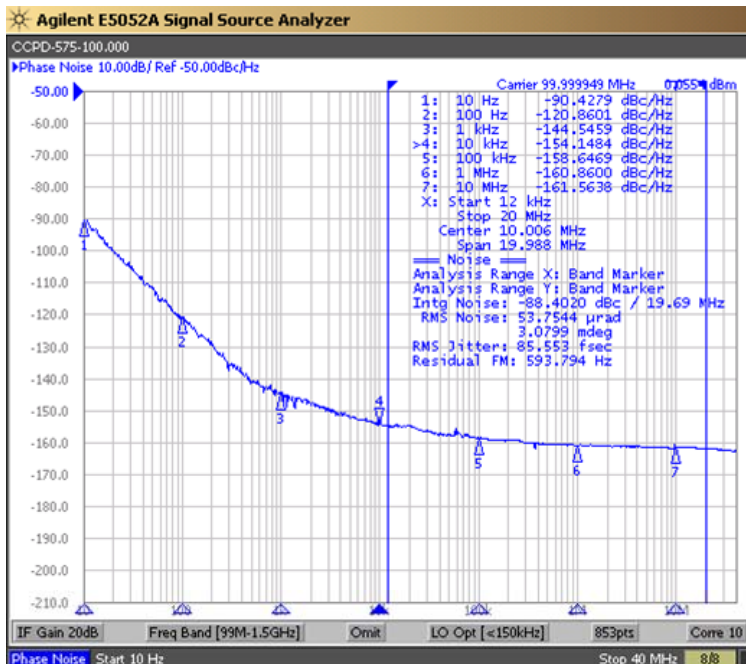
Symmetry:
Rise/Fall Time:
Logic: Terminated to Vdd-2V into 50 Ω
Output Low Voltage:
Output High Voltage:
Disable Time:
Enable Time:
Phase Jitter: 12kHz~20MHz
Phase Noise: (See Plot Below)
Sub-harmonics:
Aging:

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

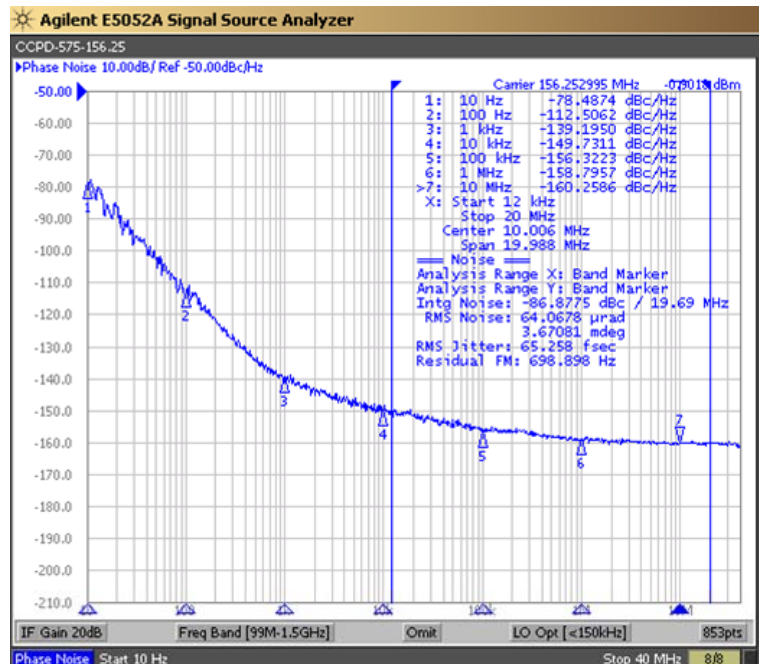


Part Number Example: CCPD-575X-20-100.000 3.3V, -40/85°C, ±20ppm, 100.000 MHz

100.000 MHz LVPECL 3.3V



156.250 MHz LVPECL 3.3V



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CCPD-575 5×7.5mm SMD

Ultra-Low Phase Noise

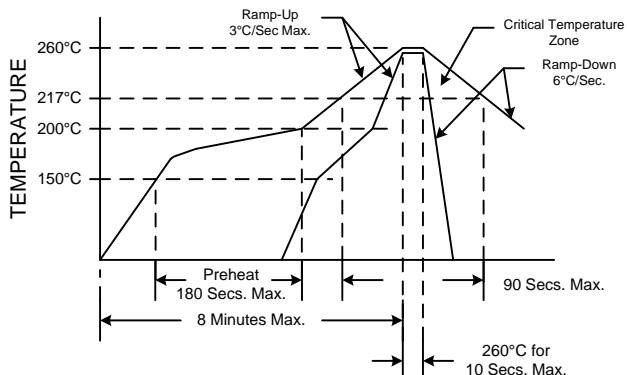
LVPECL Clock Oscillator



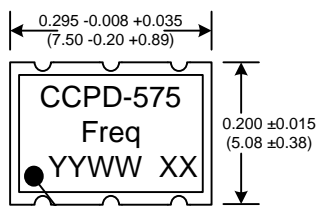
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Mechanical:	
Shock:	MIL-STD-883, Method 2002, Condition B
Solderability:	MIL-STD-883, Method 2003
Vibration:	MIL-STD-883, Method 2007, Condition A
Solvent Resistance:	MIL-STD-202, Method 215
Resistance to Soldering Heat:	MIL-STD-202, Method 210, Condition 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.

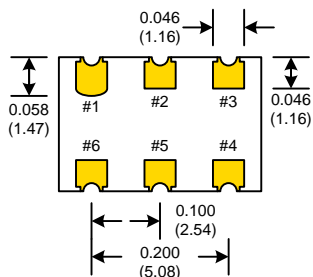


Denotes pad 1
YYWW=Date Code XX=Lot Code

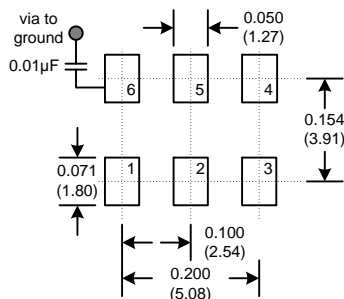
Dimensions inches (mm)
All dimensions are Max unless otherwise specified.



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

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