

Ultra-Low Noise LVPECL VCXO

with -162 dBc/Hz Noise Floor!

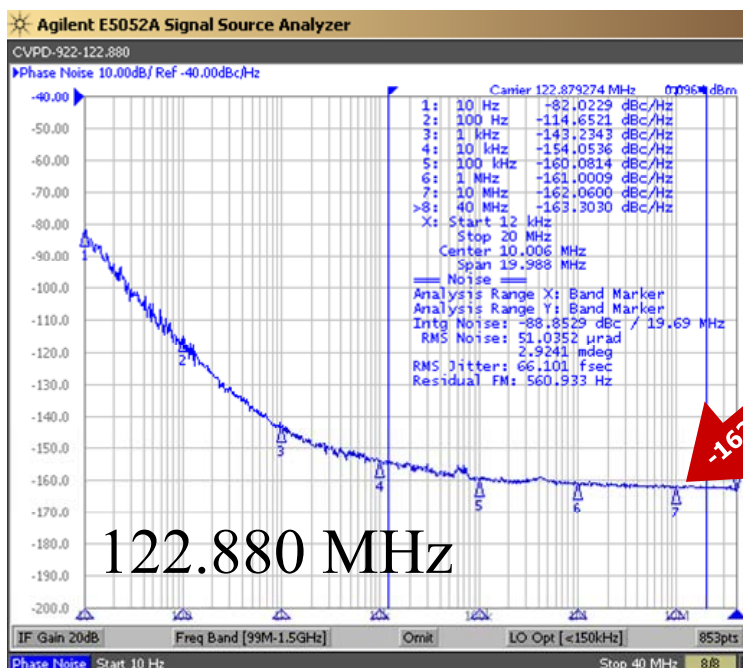
CVPD-922 Model

9x14 mm SMD, 3.3V, LVPECL

Frequency Range:	40 MHz to 125 MHz
Frequency Pulling:	±20ppm APR Min
Temperature Range:	0°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:	88mA Max
Output:	Differential LVPECL
Symmetry:	45/55% Max @ zero crossing point
Rise/Fall Time:	1ns Max (20% to 80%)
Linearity:	±10% Max
Logic:	Terminated to Vcc-2V into 50 ohms
	"0" = Vcc-1.85V Min, Vcc-1.62V Max
	"1" = Vcc-1.02V Min, Vcc-0.81V Max
Disable Time:	200ns
Start-up Time:	1ms Typical, 2ms Max
Input:	
Modulation Bandwidth:	>10kHz @ -3dB
Input Impedance:	51 kΩ
Control Voltage:	1.65V ±1.65V
Tuning Sensitivity:	+25ppm/V Typical
Phase Jitter:	12 kHz to 20 MHz 85 femtoseconds Typical @ 100 MHz
Phase Noise @ 100 MHz:	
10 Hz	-85 dBc/Hz Typical
100 Hz	-115 dBc/Hz Typical
1 kHz	-145 dBc/Hz Typical
10 kHz	-155 dBc/Hz Typical
100 kHz	-160 dBc/Hz Typical
1 MHz	-162 dBc/Hz Typical
10 MHz	-162 dBc/Hz Typical
Aging:	<3ppm 1 st year, <1ppm every year thereafter



The CVPD-922 represents our lowest phase noise LVPECL VCXO family. Close-in phase noise has been reduced to -85 dBc/Hz @ 10 Hz offset while the noise floor is at -162 dBc/Hz which leads the industry for an LVPECL VCXO.



Rev: H

Date: 19-Jan-2023

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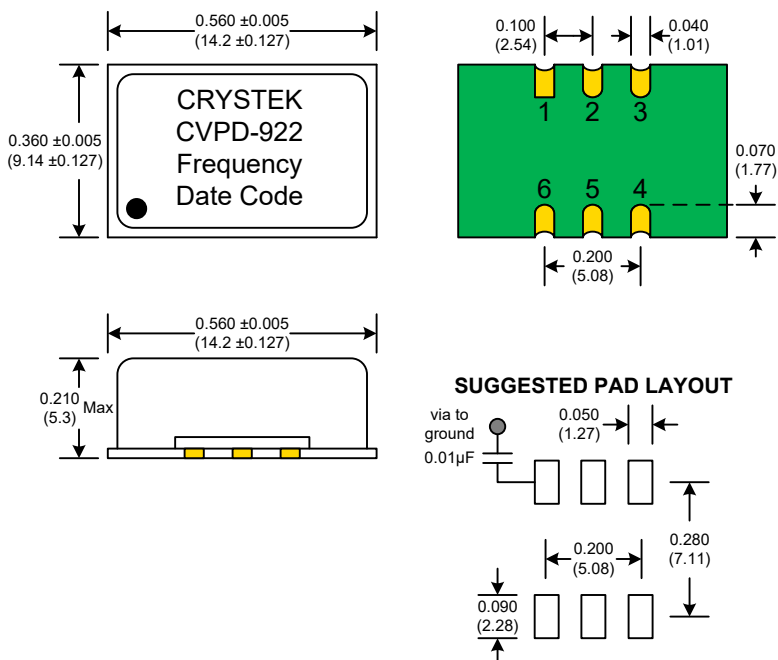
Crystek Part Number Guide

CVPD-922 X - 100.000

#1 #2 #3 #4

#1 Crystek 9×14 SMD PECL VCXO
#2 Model 922
#3 Temp. Range: Blank = 0/70°C, X = -40/85°C
#4 Frequency in MHz: 3 or 6 decimal places

Example:
CVPD-922X-100.000 = 3.3V, 45/55, -40/85°C, 100.000 MHz



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

RECOMMENDED REFLOW SOLDERING PROFILE

900034 (See App Note listed on website)

<http://www.crystek.com/specification/reflow/900034.pdf>

PIN	Function
1	Control Volt
2	E/D
3	GND
4	OUT
5	COU
6	Vdd

Enable/Disable	
Pin 2 Input	Output Pin
Open	Active
"1" level 2.0V Min	Active
"0" level 0.8V Max	High Z

Mechanical:

Shock:

Solderability:

Vibration:

Solvent Resistance:

Resistance to Soldering Heat:

MIL-STD-883, Method 2002, Condition B

MIL-STD-883, Method 2003

MIL-STD-883, Method 2007, Condition A

MIL-STD-202, Method 215

MIL-STD-202, Method 210, Condition I or J

Environmental:

Thermal Shock:

Moisture Resistance:

MIL-STD-883, Method 1011, Condition A

MIL-STD-883, Method 1004

Packaging:

Tape/Reel:

100ea, 250ea, 500ea 24mm Tape

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Mouser Electronics

Authorized Distributor

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[CVPD-922-112.000](#) [CVPD-922X-80.000](#) [CVPD-922X-112.000](#)