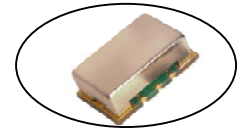
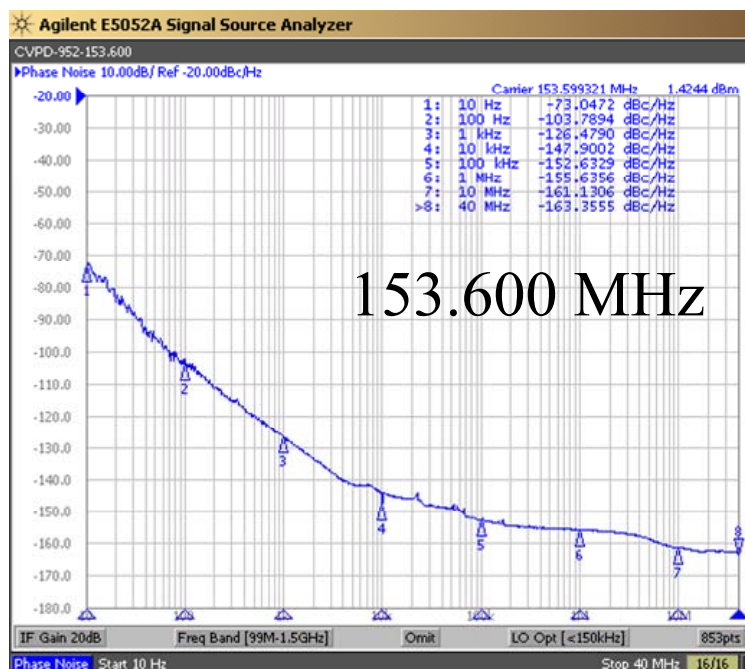


# Ultra-Low Phase Noise Voltage Controlled Crystal Oscillator



**Part Number CVPD-952**  
9×14 mm SMD, **3.3V, LVPECL**

<b>Frequency Range:</b>	131.000 MHz to 250.000 MHz
<b>Frequency Pulling:</b>	±20 ppm APR Min*
<b>Temperature Range:</b>	0°C to 70°C (standard)
<b>(Option X):</b>	-40°C to 85°C
<b>Storage:</b>	-45°C to 90°C
<b>Input Voltage:</b>	3.3 V ±0.3 V
<b>Control Voltage:</b>	1.65 V ±1.65 V
<b>Input Current:</b>	92 mA Typical, 100 mA Max
<b>Output:</b>	LVPECL
<b>Symmetry:</b>	45/55% Max @ zero crossing point
<b>Rise/Fall Time:</b>	2ns Max (20% to 80%)
<b>Linearity:</b>	±10% Max
<b>Load: Terminated to Vcc -2V into 50 ohms</b>	
<b>Logic:</b>	"0" = 1.43V Min, 1.68V Max "1" = 2.05V Min, 2.48V Max
<b>Disable Time:</b>	200 μs Max
<b>Enable Time:</b>	200 μs Max
<b>Phase Jitter (RMS): 12 kHz to 20 MHz</b>	75 fs Typical for 153.6 variant
<b>Phase Noise (Typical): 1 Hz:</b>	-40 dBc/Hz
10 Hz:	-70 dBc/Hz
100 Hz:	-100 dBc/Hz
1 kHz:	-130 dBc/Hz
10 kHz:	-148 dBc/Hz
100 kHz:	-150 dBc/Hz
<b>Sub-Harmonic @ Fo/2:</b>	-35 dBc Max
<b>Aging:</b>	<3 ppm 1 <sup>st</sup> year, <1 ppm every year thereafter



\* APR= Absolute Pulling Range inclusive of all conditions

Rev: J  
Date: 23-Aug-2023  
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# Ultra-Low Phase Noise Voltage Controlled Crystal Oscillator

**Part Number CVPD-952**  
9×14 mm SMD, 3.3V, LVPECL

## Crystek Part Number Guide

**CVPD-952 X-148.500**

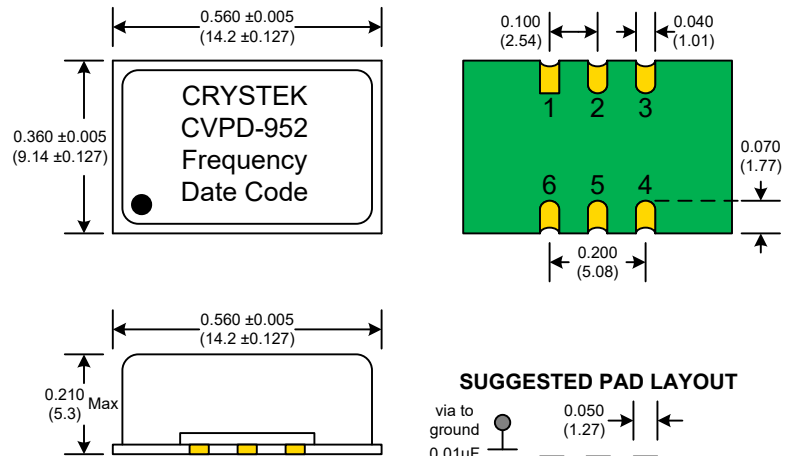
#1 #2 #3 #4

#1 Crystek 9×14 SMD LVPECL VCXO  
#2 Model 952 = Ultra Low Noise 3.3V  
#3 Temp. Range: Blank = 0/70°C, X = -40/85°C  
#4 Frequency in MHz: 3 or 6 decimal places

Example:  
CVPD-952X-153.600 = 3.3V, -40/85°C, 153.600 MHz

### Available Frequencies MHz

148.351600  
148.500  
153.600  
245.760



**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

Tri-State Function	
Tri-State Pin	Output pin
Open	Active
"1" level 2.0V Min	Active
"0" level 0.8V Max	High Z

### Applications:

HD Video Broadcast Equipment

#### 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

#### Packaging:

Tape/Reel: 100ea, 250ea, 500ea 24mm Tape

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