

Ultra-Low Phase Noise Voltage Controlled Crystal Oscillator

Part Number CVHD-952
9×14 mm SMD, 3.3V, HCMOS

Frequency Range:	131.000 MHz to 210.000 MHz
Frequency Pulling:	±20 ppm APR Min
Temperature Range:	0°C to 70°C (standard)
(Option X):	-40°C to 85°C
Storage:	-45°C to 90°C
Input Voltage:	3.3 V ±0.3 V
Control Voltage:	1.65 V ±1.65 V
Input Current:	25 mA Typical, 35 mA Max
Output:	HCMOS
Symmetry:	45/55% Max @ 50% Vdd
Rise/Fall Time:	2ns Max @ 20% to 80% Vdd
Linearity:	±10% Max
Logic:	"0" = 10% Vdd Max "1" = 90% Vdd Min
Load:	15 pF
Output current:	±24 mA Max
Disable Time:	200 ns Max
Enable Time:	200 ns Max
Jitter:	12 kHz to 80 MHz 0.5 psec Typical, 1 psec RMS Max
Phase Noise (Typical):	1 Hz: -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

Sub-Harmonic @ Fo/2: -35 dBc Max
Aging: <3 ppm 1st year, <1 ppm every year thereafter



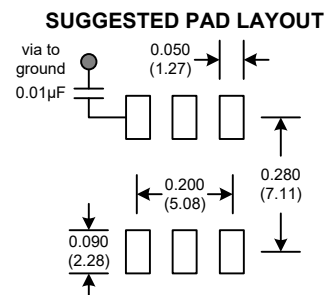
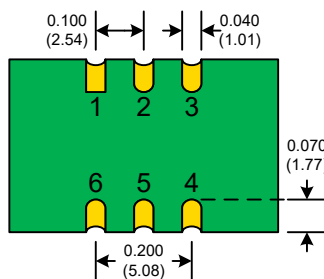
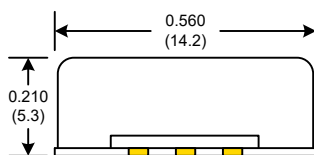
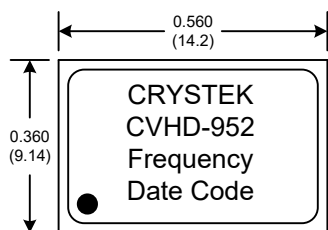
Available Frequencies (MHz):
148.351600 148.500

Applications:

HD Video Broadcast Equipment

PIN	Function
1	Control Volt
2	E/D
3	GND
4	OUT
5	No Connect
6	Vdd

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



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

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 900034 (See App Note listed on website)

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

** APR= Absolute Pulling Range inclusive of all conditions
Specifications subject to change without notice.

Rev: G
Date: 07-Sep-2017
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