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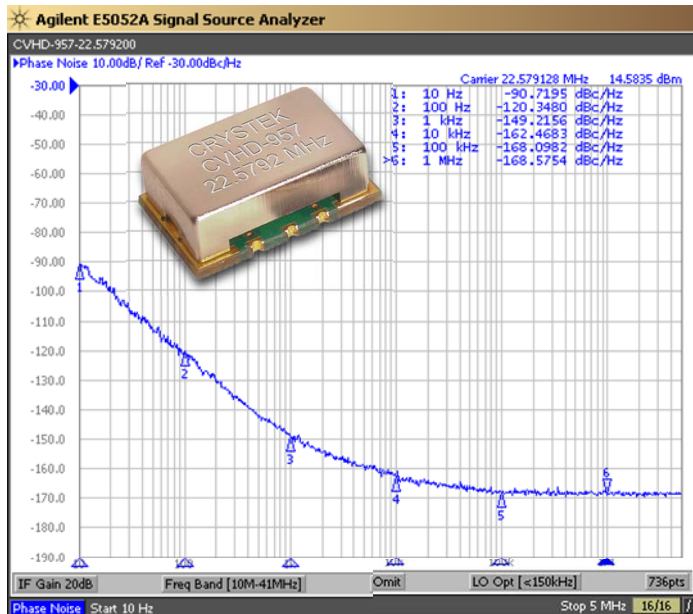
CVHD-957 Model
9×14 mm SMD, 3.3V, HCMOS

22.579200 MHz HCMOS 3.3V

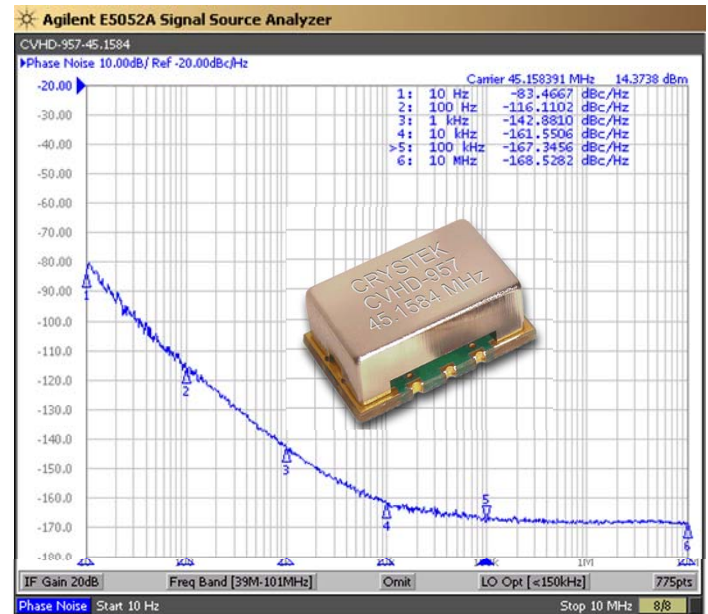
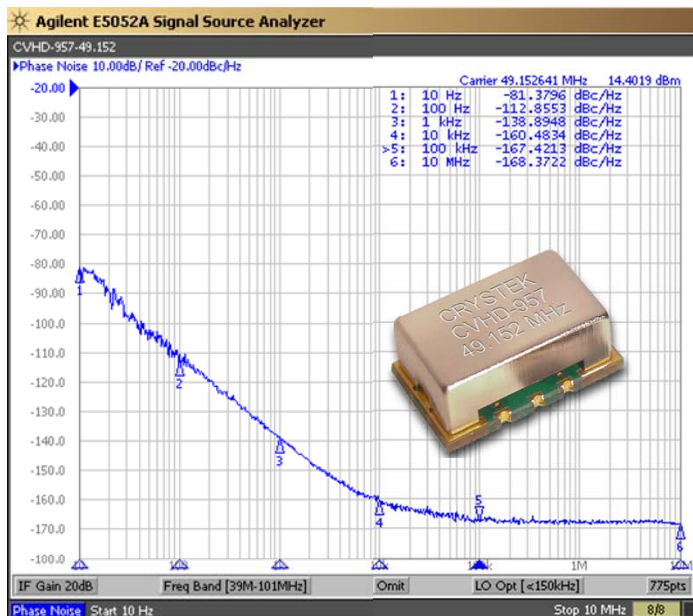


CVHD-957 Ultra-Low Phase Noise VCXO with Standby Mode

45.158400 MHz HCMOS 3.3V



49.152 MHz HCMOS 3.3V



Hear The Difference!!

Crystek's Model CVHD-957 HCMOS VCXO family has been designed specifically for High Definition Audio (HD Audio). It features a typical low close-in phase noise of -90 dBc/Hz @ 10 Hz offset, and a noise floor of -168 dBc/Hz. With this extreme low phase noise performance, you will "Hear the Difference". It also features a "Standby Function", that is, when placed in disable mode, the internal oscillator is completely shut down in addition to its output buffer being placed in Tri-State. This family is housed in a 9×14 mm SMT package and operates with a +3.3V power supply.

Applications include: Digital Audio Broadcasting (DAB)
Professional CD audio equipment
DACs and ADCs for HD audio

Rev: L
Date: 15-Jan-2019
Page 1 of 2



CRYSTEK
CORPORATION

16850 ORIOLE ROAD • FORT MYERS, FLORIDA 33912
PHONE: 239-561-3311 • 800-237-3061
WWW.CRYSTEK.COM



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CVHD-957

Ultra-Low Phase Noise VCXO with Standby Mode



CVHD-957 Model

9x14 mm SMD, 3.3V, HCMOS

Frequency Range:	10 MHz to 50 MHz
Temperature Range:	0°C to +70°C
(Option M)	-20°C to +70°C
(Option X)	-40°C to +85°C
Storage:	-45°C to 90°C
Input Voltage:	3.3V \pm 5%
Input Current:	15mA Typical, 25mA Max
Input Current (Disabled Mode):	1.5mA Max
Input: Modulation Bandwidth:	>10 kHz @ -3 dB
Impedance:	50 kOhm
Control Voltage:	1.65V \pm 1.65V
Tuning Sensitivity:	+85 ppm/V Typical
Frequency Pulling:	\pm 100ppm Min, \pm 75ppm Min for 10 MHz variant
Output:	HCMOS
Symmetry:	40/60% Max @ 50% Vcc
Rise/Fall Time:	3ns Max @ 20% to 80% Vcc
Logic:	"0" = 10% Vcc Max "1" = 90% Vcc Min
Load:	15pF
Output Current:	\pm 24mA Max
Disable Time:	200ns Max
Start-up Time:	1ms Typical, 2ms Max
Pin 1 Disable Current:	-350 μ A Max
Phase Noise:	-90 dBc/Hz at 10 Hz Typical for 22.5792 MHz and 24.576 MHz -80 dBc/Hz at 10 Hz Typical for 45.1584 MHz and 49.152 MHz
Phase Noise Floor:	-168 dBc/Hz Typical, -165 dBc/Hz Max
Sub-harmonics:	None
Aging:	<3ppm 1 st year, <1ppm thereafter

Mechanical:

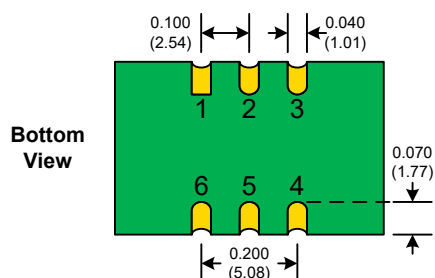
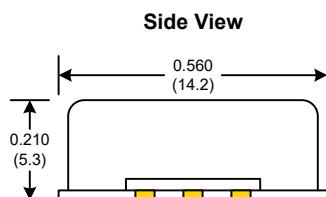
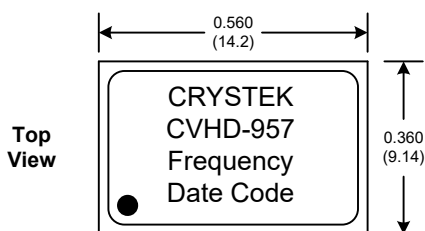
Shock:	MIL-STD-883, Method 2002, Condition B
Solderability:	MIL-STD-883, Method 2003
Vibration:	MIL-STD-883, Method 2007, Condition A
Solvent Resistance:	MIL-STD-202, Method 215
Resistance to Soldering Heat:	MIL-STD-202, Method 210, Condition I or J

Environmental:

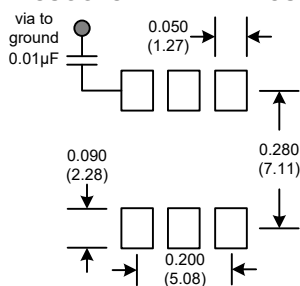
Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004

Developed Frequencies

22.5792 MHz
24.576 MHz
45.1584 MHz
49.152 MHz



SUGGESTED PAD LAYOUT



RECOMMENDED REFLOW SOLDERING PROFILE 900034 (See App Note listed on website)

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

Tri-State/Standby Function	
Function pin 2	Output pin
Open	Active
"1" level 0.7 \times Vcc Min	Active
"0" level 0.3 \times Vcc Max	High Z

PIN	Function
1	Control Volt
2	E/D
3	GND
4	OUT
5	NC
6	Vcc

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

Crystek Corporation reserves the right to make changes to its products and/or information contained herein without notice.
No liability is assumed as a result of its use or application.

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Page 2 of 2



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PHONE: 239-561-3311 • 800-237-3061
WWW.CRYSTEK.COM

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[CVHD-957-22.57920](#) [CVHD-957-45.1584](#)