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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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CCHD-957

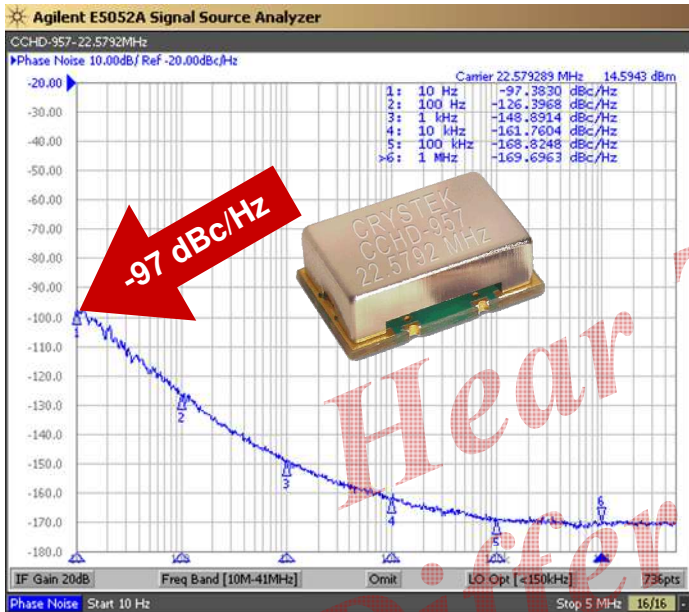
Ultra-Low Phase Noise Oscillator

with Standby Mode

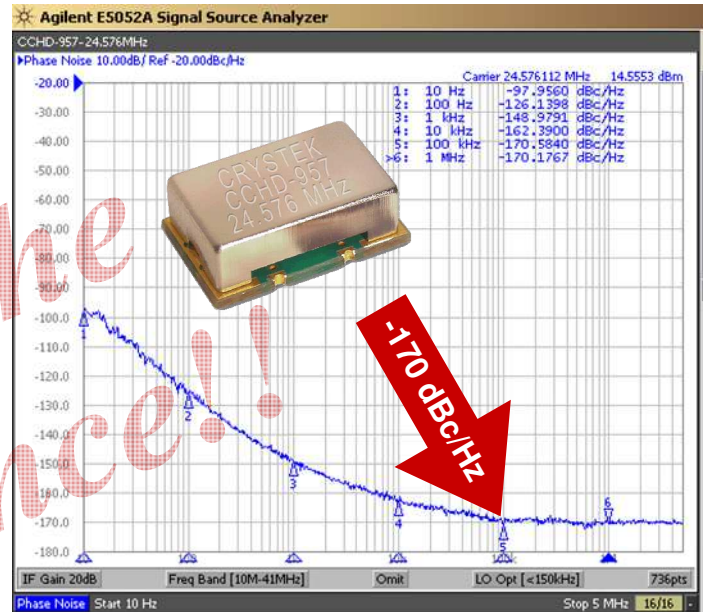


CCHD-957 Model
9x14 mm SMD, 3.3V, HCMOS

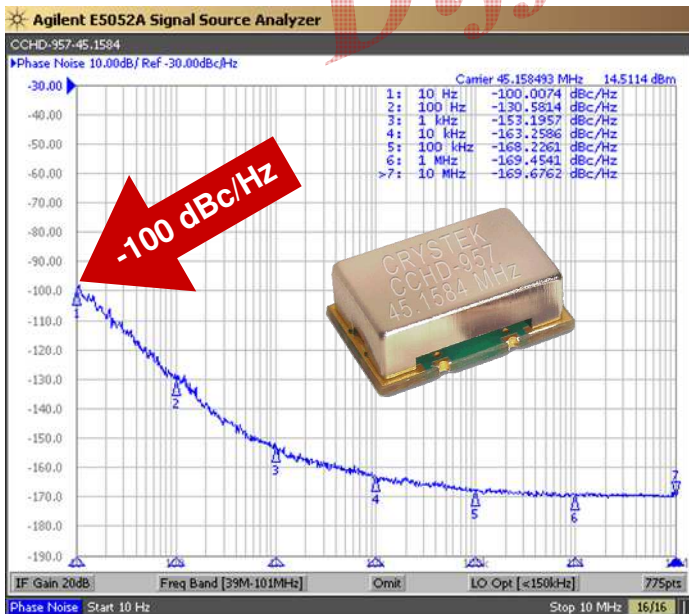
22.5792 MHz HCMOS 3.3V



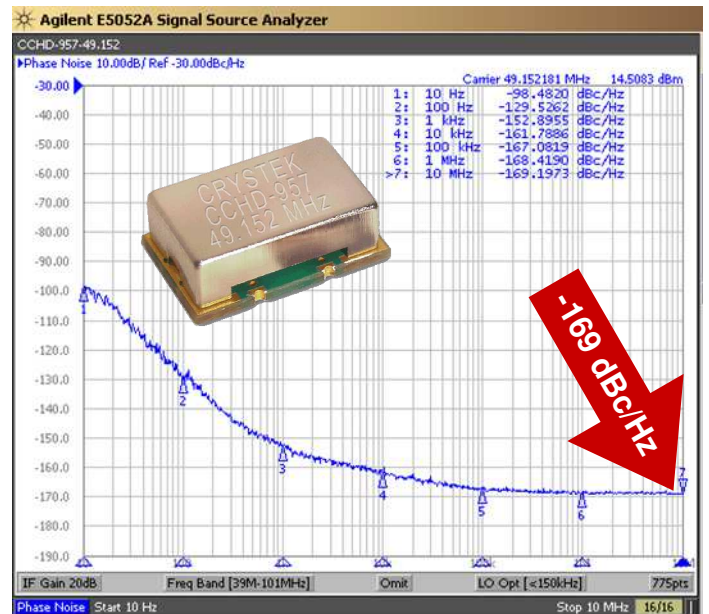
24.576 MHz HCMOS 3.3V



45.1584 MHz HCMOS 3.3V



49.152 MHz HCMOS 3.3V



Crystek's Model CCHD-957 HCMOS CLOCK oscillator family has been designed specifically for High Definition Audio (HD Audio). It features a typical low close-in phase noise of -100 dBc/Hz @ 10 Hz offset, and a noise floor of -169 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 9x14 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

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CCHD-957

Ultra-Low Phase Noise Oscillator with Standby Mode

CCHD-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 ±0.3V
Input Current:	15mA Typical, 25mA Max
Input Current (Disabled Mode):	1.5mA Max
Output:	HCMOS
Symmetry:	45/55% Max @ 50% Vcc
Rise/Fall Time:	3nsec Max @ 20% to 80% Vcc
Logic:	"0" = 10% Vcc Max "1" = 90% Vcc Min
Load:	15pF
Output Current:	±24mA Max
Disable Time:	200ns Max
Start-up Time:	1ms Typical, 2ms Max
Pin 1 Disable Current:	-350µA Max
Phase Noise:	-100 dBc/Hz Typical, -95 dBc/Hz Max at 10Hz offset
Phase Noise Floor:	-169 dBc/Hz Typical, -165 dBc/Hz Max
Sub-harmonics:	None
Aging:	<3ppm 1st year, <1ppm thereafter
CCHD-957 Options:	
Temperature Range:	0°C to +70°C (±20ppm, ±25ppm, ±50ppm) -20°C to +70°C (±25ppm, ±50ppm) -40°C to +85°C (±25ppm, ±50ppm)

Part Number Example:
CCHD-957X-25-49.152 = 3.3V, 45/55, -40°C to +85°C (±25ppm), 49.152 MHz

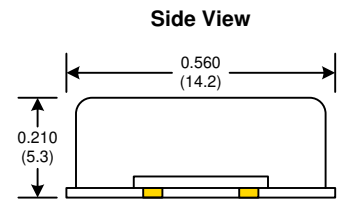
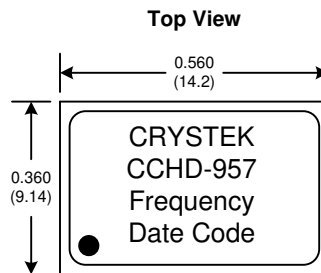
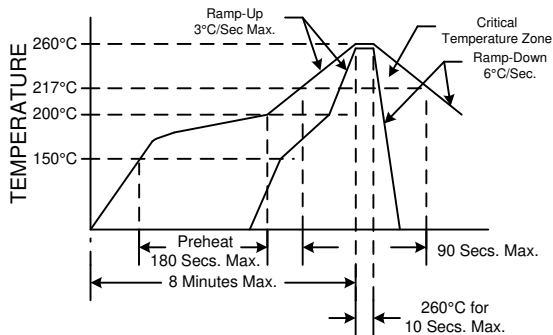
Mechanical:	
Shock:	MIL-STD-883, Method 2002, Condition B
Solderability:	MIL-STD-883, Method 2003
Vibration:	MIL-STD-883, Method 2007, Condition A
Solvent Resistance:	MIL-STD-202, Method 215
Resistance to Soldering Heat:	MIL-STD-202, Method 210, Condition I or J
Environmental:	
Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004



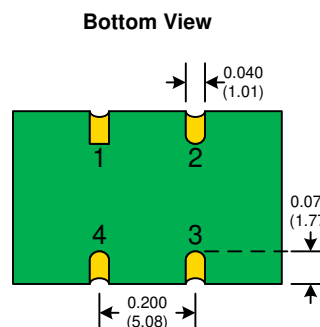
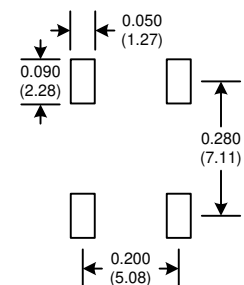
Developed Frequencies	
22.5792 MHz	
24.576 MHz	
45.1584 MHz	
49.152 MHz	



RECOMMENDED REFLOW SOLDERING PROFILE



SUGGESTED PAD LAYOUT



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

Pad	Connection
1	E/D
2	GND
3	OUT
4	Vcc

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