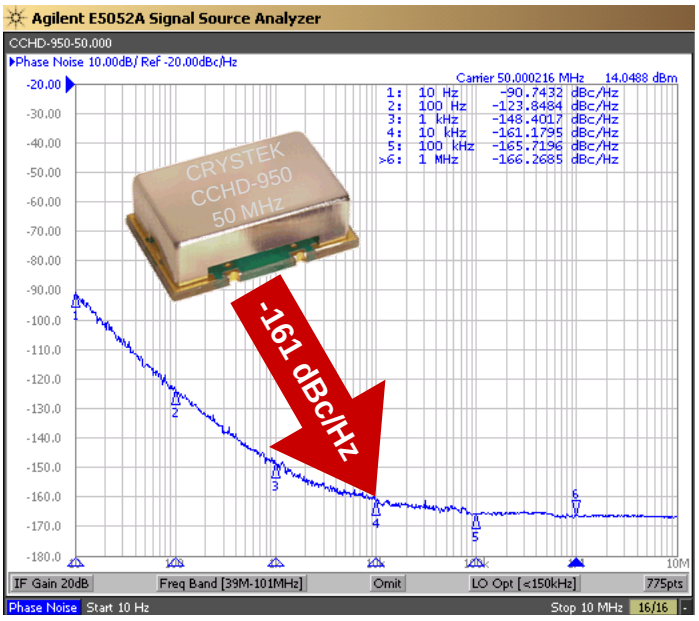
CCHD-950
Ultra-Low Phase Noise Oscillator

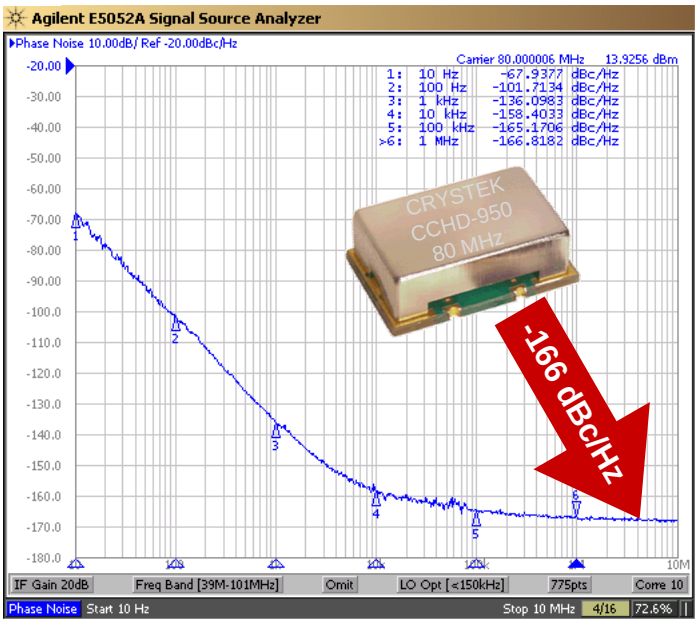
CCHD-950 Model
9×14 mm SMD, 3.3V, HCMOS

RoHS Compliant

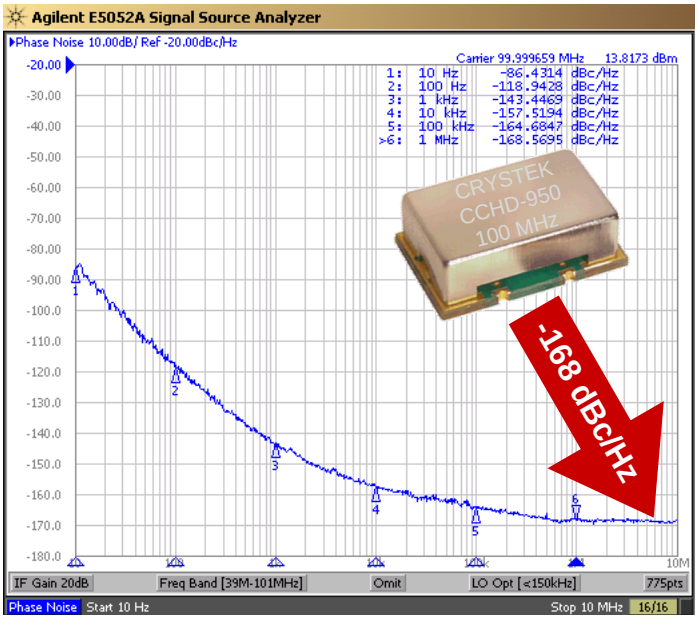
50 MHz HCMOS 3.3V



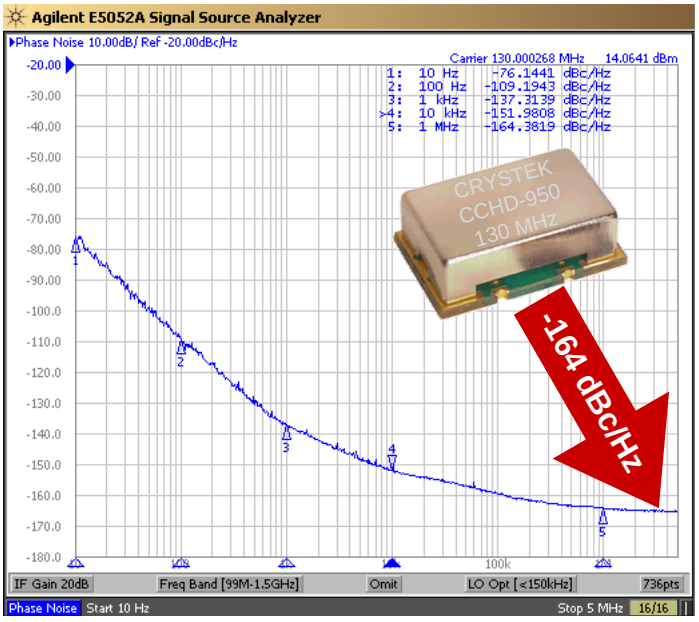
80 MHz HCMOS 3.3V



100 MHz HCMOS 3.3V



130 MHz HCMOS 3.3V



Model CCHD-950 is a 45 MHz to 130 MHz HCMOS Clock Oscillator. High Q crystal and 3rd overtone technology provides Ultra-Low Phase Noise and Low-Jitter performance with an HCMOS output. Features include -165 dBc/Hz phase noise floor with 3.3 Vdc input voltage, -40°C to +85°C operating temperature, and 9×14 mm SMT package. The oscillator has no sub-harmonics.

Applications include High Definition TV, Avionics Low Phase Signal Sources, and Test and Measurement.

Rev: K
Date: 26-Apr-12
Page 1 of 2

CRYSTEK CORPORATION
12730 Commonwealth Drive • Fort Myers, Florida 33913
Phone: 239-561-3311 • 800-237-3061
Fax: 239-561-1025 • www.crystek.com

CCHD-950
Ultra-Low Phase Noise Oscillator

CCHD-950 Model
9×14 mm SMD, 3.3V, HCMOS

RoHS Compliant

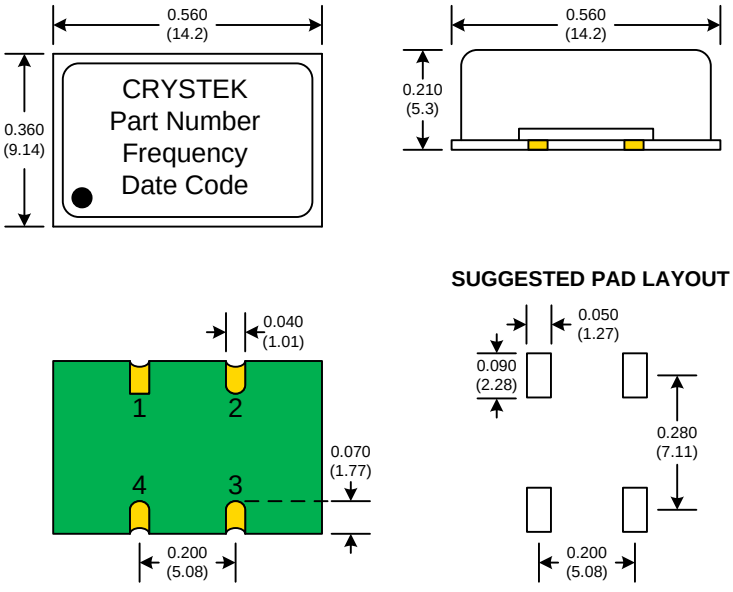
Frequency Range:	**45 MHz to 130 MHz**
Temperature Range:	**0°C to +70°C**
(Option M)	**-20°C to +70°C**
(Option X)	**-40°C to +85°C**
Storage:	**-45°C to 90°C**
Input Voltage:	**3.3V ±0.3V**
Input Current:	**15mA Typical, 25mA Max**
Output:	**HCMOS**
Symmetry:	**45/55% Max @ 50%Vdd**
Rise/Fall Time:	**3nsec Max @ 20% to 80% Vdd**
Logic:	**"0" = 10% Vdd Max**
	"1" = 90% Vdd Min
Load:	**15pF**
Output Current:	**±24mA Max**
Jitter: 12kHz~80MHz	**0.5psec Typical, 1psec RMS Max**
Phase Noise Typical:	**See plots**
Phase Noise Floor:	**-165dBc/Hz Typical, -160dBc/Hz Max**
Sub-harmonics:	**None**
Aging:	**<3ppm 1st 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

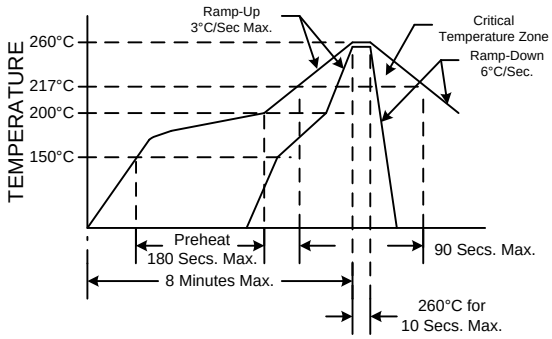
CCHD-950 Options:

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-950X-25-100.000 = 3.3V, 45/55, -40°C to +85°C (±25ppm), 100 MHz



RECOMMENDED REFLOW SOLDERING PROFILE



NOTE: Reflow Profile with 240°C peak also acceptable.

Pad	Connection
1	NC
2	GND
3	OUT
4	Vdd

Rev:	K
Date:	26-Apr-12
Page 2 of 2	

CRYSTEK CORPORATION
12730 Commonwealth Drive • Fort Myers, Florida 33913
Phone: 239-561-3311 • 800-237-3061
Fax: 239-561-1025 • www.crystek.com