

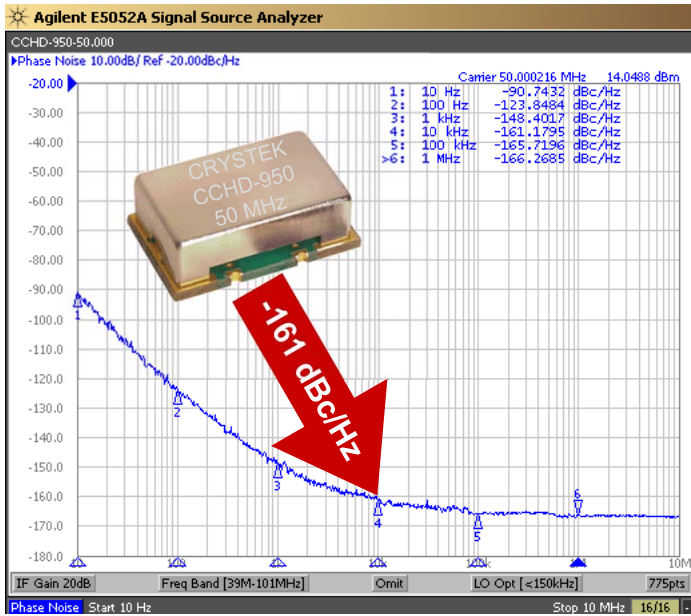
CCHD-950

Ultra-Low Phase Noise Oscillator

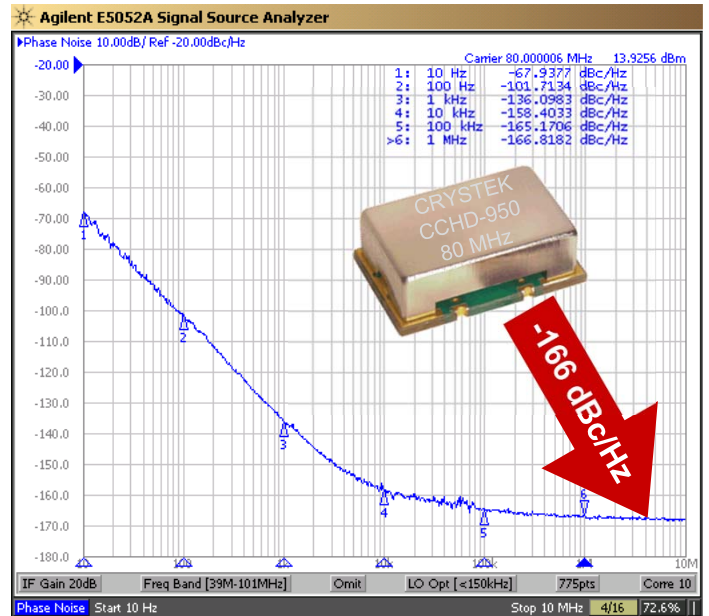


CCHD-950 Model
9×14 mm SMD, 3.3V, HCMOS

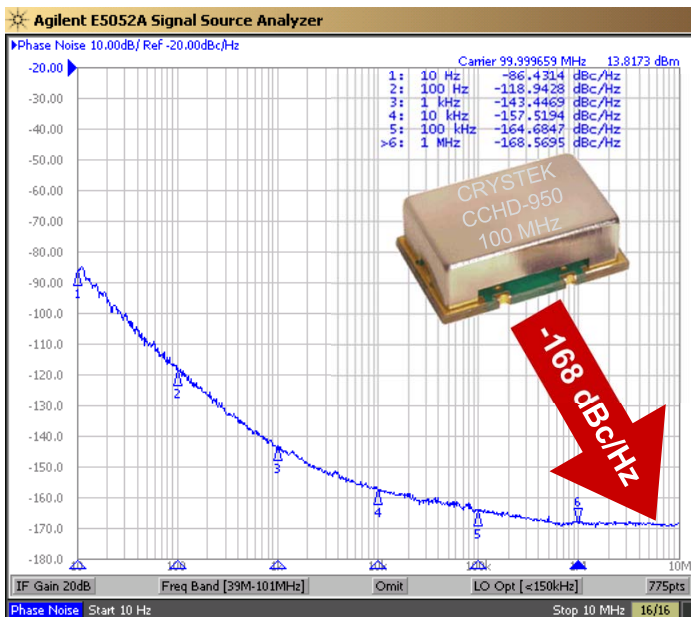
50 MHz HCMOS 3.3V



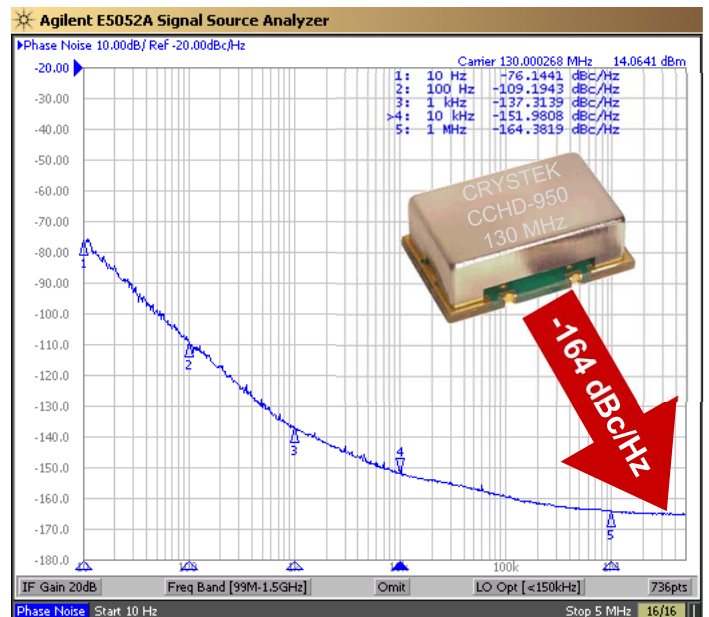
80 MHz HCMOS 3.3V



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.

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CCHD-950

Ultra-Low Phase Noise Oscillator



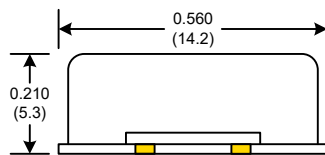
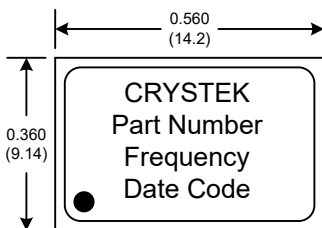
CCHD-950 Model
9x14 mm SMD, 3.3V, HCMOS

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: 3ns Max @ 20% to 80% Vdd
Logic: "0" = 10% Vdd Max
 "1" = 90% Vdd Min
Load: 15pF
Output Current: ±24mA Max
Phase Jitter (12kHz~20MHz): 40 fs Typical @ 100MHz
Phase Noise Typical: See plots
Phase Noise Floor: -165 dBc/Hz Typical, -160 dBc/Hz Max
Sub-harmonics: None
Aging: <3ppm 1st year, <1ppm thereafter

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)

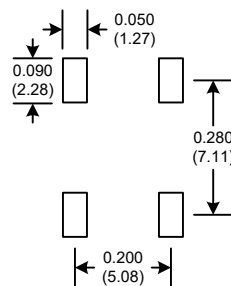
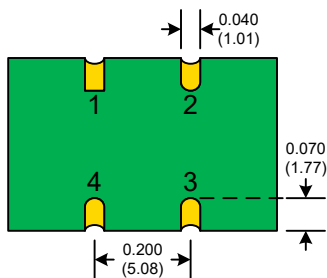
Part Number Example:
 CCHD-950X-25-100.000 = 3.3V, 45/55, -40°C to +85°C (±25ppm), 100 MHz

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>

SUGGESTED PAD LAYOUT



Pad	Connection
1	NC
2	GND
3	OUT
4	Vdd

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

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 Date: 19-Sep-2017
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