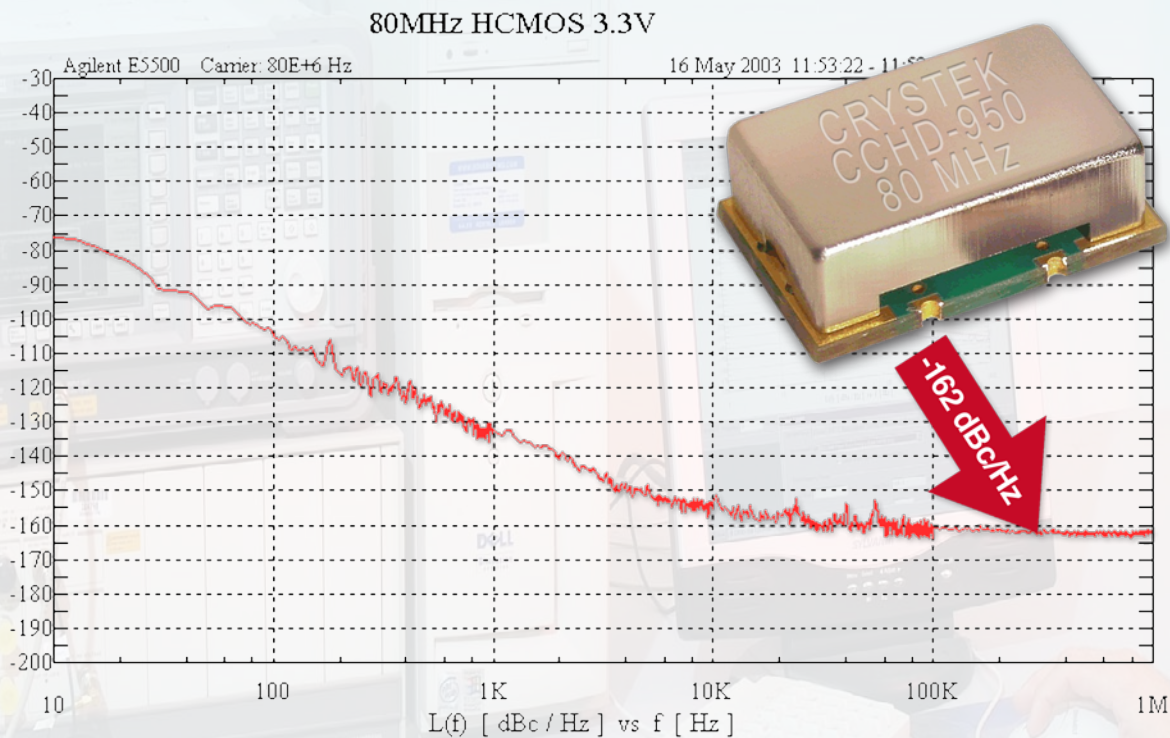




CRYSTEK
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CCHD-950 Ultra-Low Phase Noise Oscillator



Model CCHD-950 is a 50Mhz to 125Mhz CMOS Clock Oscillator. High Q crystal and 3rd overtone technology provides Ultra-Low Phase Noise and Low-Jitter performance with a CMOS output. Features include -162dBc/Hz phase noise floor with 3.3Vdc input voltage, -40 to +85C operating temperature, and 9x14 mm SMT package. The oscillator has no sub-harmonics.

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



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CCHD-950 Ultra-Low Phase Noise Oscillator



Frequency Range: 50Mhz to 125Mhz
Temperature Range: 0°C to +70°C
 (Option M) -20°C to +70°C
 (Option X) -40°C to +85°C
Storage: -55°C to 90°C
Input Voltage: 3.3V $\pm$ 0.3V
Input Current: 15mA Typ., 25mA Max
Output: CMOS
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: $\pm$ 24mA Max
Jitter: 12KHz~80MHz 0.5psec Typ., 1psec RMS Max
Phase Noise Floor: -160dBc Typ., -155dBc Max
Sub-harmonics: None
Aging: <3ppm 1st/yr, <1ppm thereafter

Phase Noise Typ.:

1KHz	-131 dBc/Hz
10KHz	-155 dBc/Hz
100KHz	-160 dBc/Hz
1MHz	-162 dBc/Hz

CCHD-950 Options:

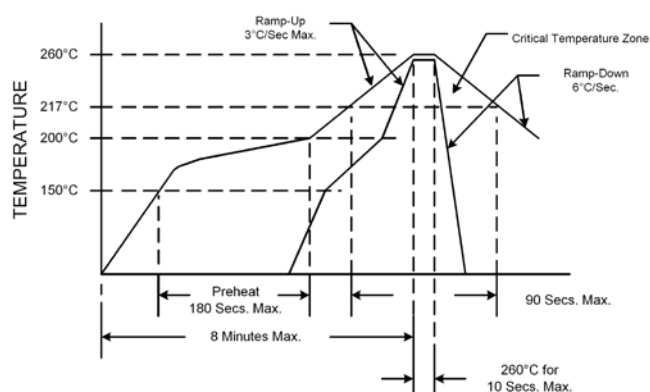
Temperature Range: 0°C to +70°C ($\pm$ 20ppm, $\pm$ 25ppm, $\pm$ 50ppm)
 -20°C to +70°C ($\pm$ 25ppm, $\pm$ 50ppm)
 -40°C to +85°C ($\pm$ 25ppm, $\pm$ 50ppm)

Part Number Example:

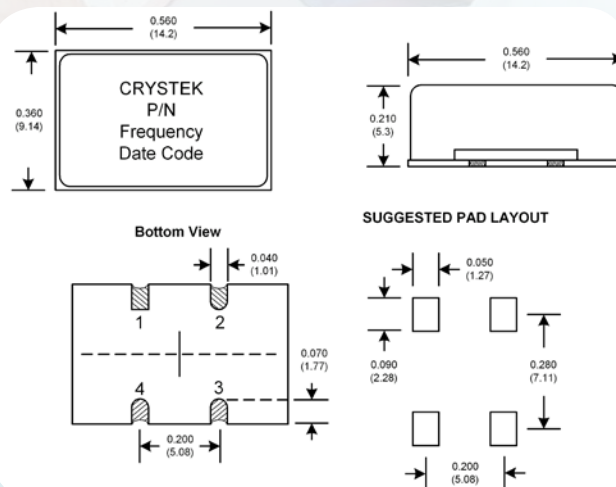
CCHD-950X-25-100.000 = 3.3V, 45/55, -40°C to +85°C ($\pm$ 25ppm), 100MHz

Pad	Connection
1	NC
2	GND
3	Output
4	Vdd

RECOMMENDED REFLOW SOLDERING PROFILE



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



12730 COMMONWEALTH DRIVE • FORT MYERS, FL 33913
 PHONE: 239-561-3311 • 800-237-3061
 FAX: 239-561-1025 • WWW.CRYSTEK.COM

Rev.: C
 Date: 12-9-05