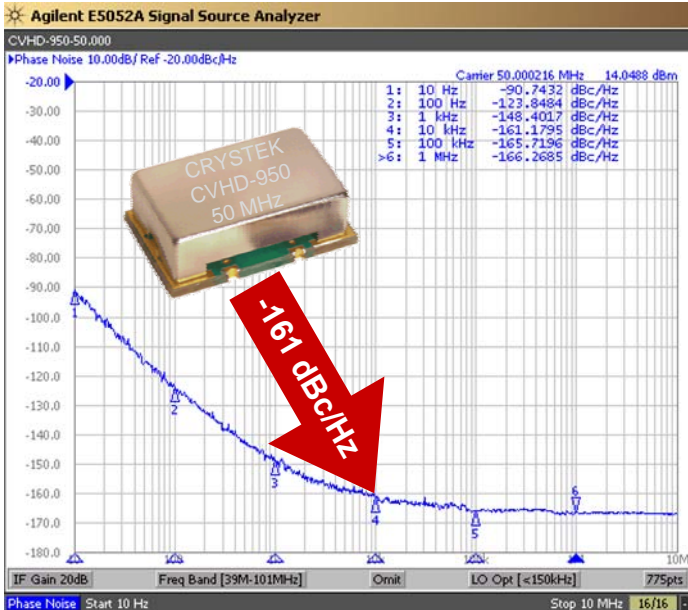


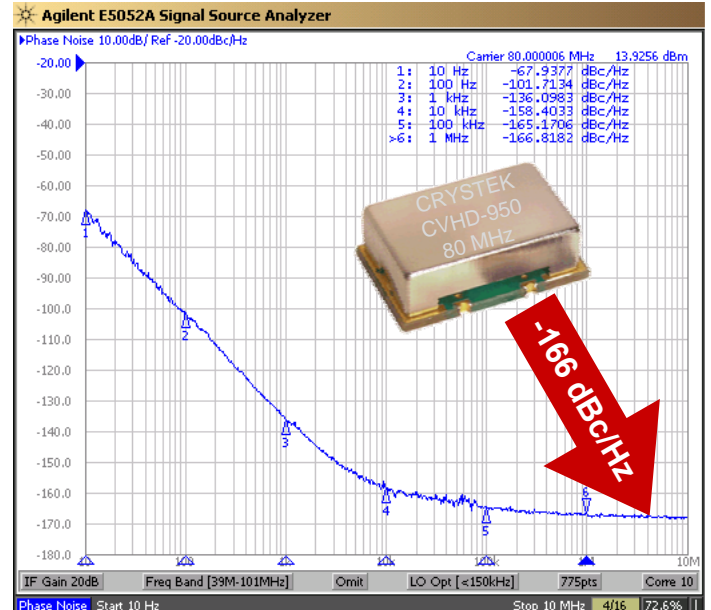
CVHD-950 VCXO

Ultra-Low Phase Noise Oscillators

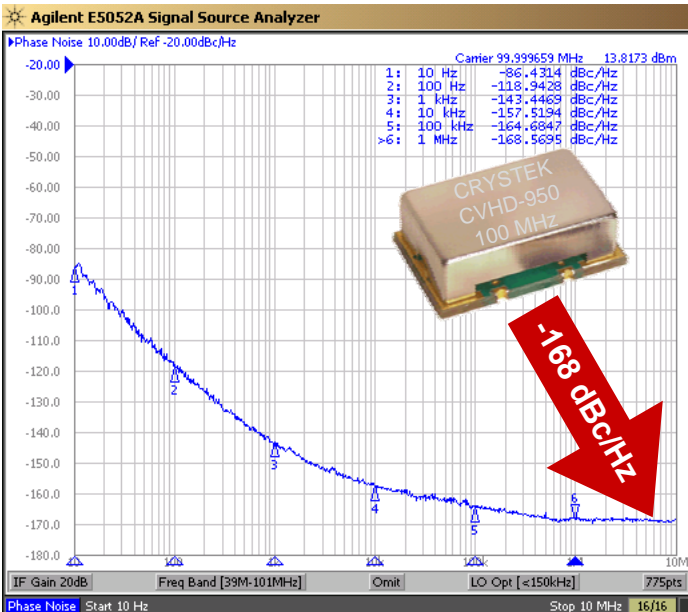
50MHz HCMOS 3.3V



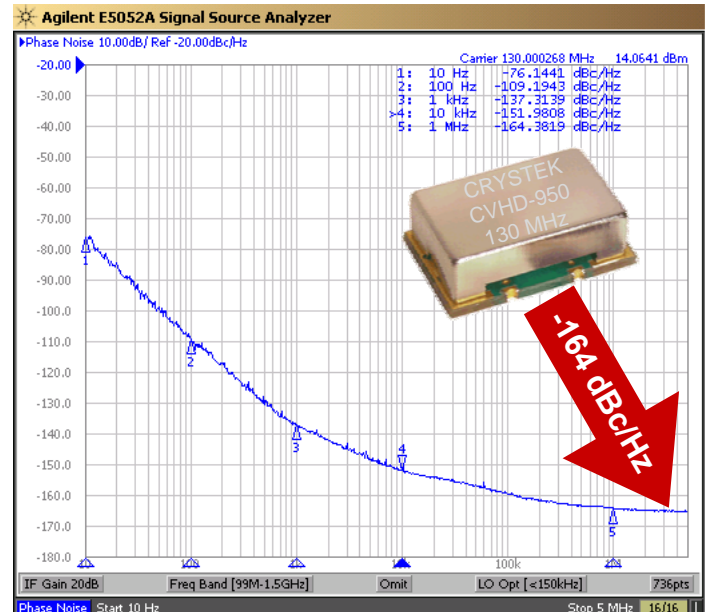
80MHz HCMOS 3.3V



100MHz HCMOS 3.3V



130MHz HCMOS 3.3V



Model CVHD-950 is a 50MHz to 125MHz CMOS Voltage Controlled Crystal Oscillator. High Q crystal and 3rd overtone technology provides Ultra-Low Phase Noise and Low-Jitter performance with a CMOS output. Features include -165dBc/Hz phase noise floor with 3.3Vdc 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: H
Date: 22-Feb-11
Page 1 of 2



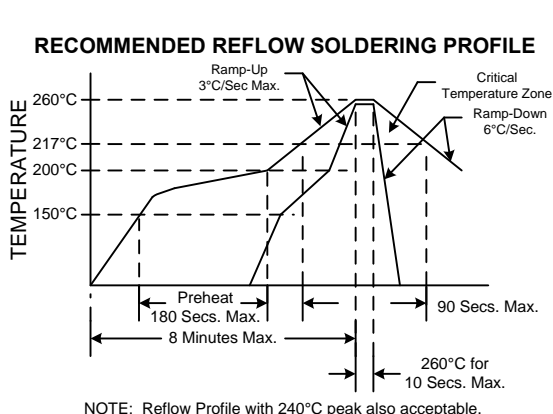
Frequency Range: 50MHz to 125MHz
Temperature Range: 0°C to +70°C (standard)
 (Option M) -20°C to +70°C
 (Option X) -40°C to +85°C
Storage: -45°C to 90°C
Input Voltage: 3.3V ±0.3V
Input Current: 15mA Typ., 25mA Max
Output: CMOS
Symmetry: 45/55% Max @ 50% Vdd
Rise/Fall Time: 3nsec Max @ 20% to 80% Vdd
Logic: "0" = 10% Vdd Max
 "1" = 90% Vdd Min.
Load: 15pF
Output Current: ±24mA Max
Input:
Modulation Bandwidth: >10kHz @ -3dB
Impedance: 51 kΩ
Control Voltage: 1.65V ±1.65V
Frequency Pulling: ±20ppm APR Min. (Inclusive of frequency stability, calibration, and aging.)
Linearity: ±10% Max
Phase Jitter (12kHz~80MHz): 0.13psec Typ. @100MHz
Phase Noise Floor: -165dBc Typ., -160dBc Max
Sub-harmonics: None
Aging: <3ppm 1st/yr, <1ppm thereafter

Typical Phase Noise:

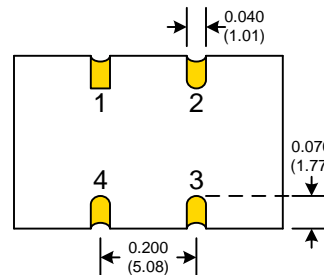
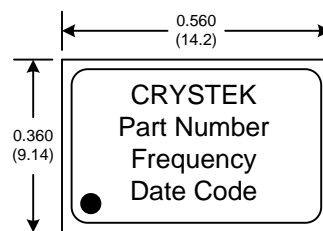
1kHz	-135 dBc/Hz
10kHz	-155 dBc/Hz
100kHz	-164 dBc/Hz
1MHz	-165 dBc/Hz

Part Number Example

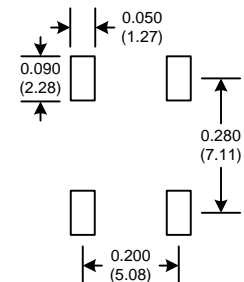
CVHD-950X-100.000 = 3.3V, 45/55, -40°C to +85°C (±20ppmAPR), 100MHz



Pad	Connection
1	Volt Cntrl.
2	GND
3	OUT
4	Vdd



SUGGESTED PAD LAYOUT



Rev: H
 Date: 22-Feb-11
 Page 2 of 2