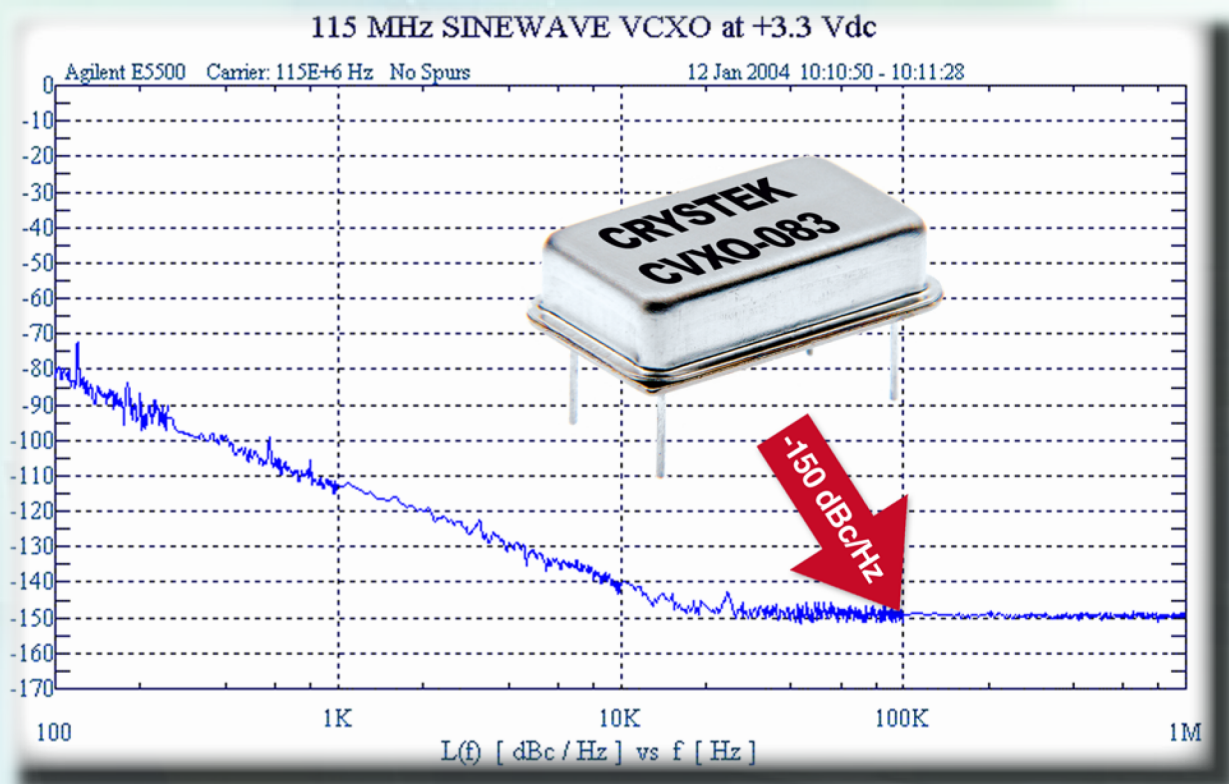




CRYSTEK
CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

True Sinewave
Clock Oscillators and
Voltage Controlled Crystal
Oscillators



Model CCO-083/085 (Clock Version) and CVXO-083/085 (VCXO Version) generate frequencies from 10Mhz to 200Mhz. This low current sinewave oscillator provides -150dBc/Hz noise floor while only consuming 8mA typical. Output level is 0dBm min. into 50 ohms, and harmonics are lower than -20dBc. The series has no sub-harmonics due to the use of Inverted Mesa (High Frequency Fundamental Crystal) technology. The oscillator is offered in extended operating temperature range (-40C to +85C), also available in 3.3V and 5V models . Applications include Low current applications and sources for driving PLL and Mixers.



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True Sinewave Clock Oscillators and Voltage Controlled Crystal Oscillators



Frequency Range: 10Mhz to 200MHz

Temperature Range: 0°C to +70°C
(Option X) -40°C to +85°C

Storage: -55°C to 90°C

Input Voltage: (Option 3) 3.3V ± 0.3V
(Option 5) 5.0V ± 0.5V

Input Current: 8mA Typ., 15mA Max @3.3V
12mA Typ., 20mA Max @5.0V

Output: True Sinewave

Load: 50 ohms

Power (std.): 0dBm Min. into 50 ohms
(Option B) +3dBm Min. into 50 ohms
(Option C) +5dBm Min. into 50 ohms
(Option D) +7dBm Min. into 50 ohms

Harmonics: -20dBc Max

Sub-Harmonics: None

Enable/Disable: None

Phase Noise Floor: -150dBc Typical

Aging: <3ppm 1st/yr, <1ppm thereafter

Phase Noise Typ.:

100Hz	-80dBc/Hz
1KHz	-112dBc/Hz
10KHz	-140dBc/Hz
100KHz	-150dBc/Hz

CCO-083/085 Options **Temperature Range:** 0°C to +70°C (±25ppm Max)
-40°C to +85°C (±50ppm Max)

CVXO-083/085 **Frequency Pulling:** ±50ppm APR Min.

Control Voltage (083): 1.65V ± 1.65V
(085): 2.5V ± 2.0V

Settability (083): 1.65V ± 0.25V
(085): 2.5V ± 0.5V

Linearity: ±10% Max

Pad	Connection
1	NC or Volt. Cntrl.
7	GND
8	Output
14	Vdd

Part Number Example

CCO-083X-100.000 = 3.3V, -40°C to +85°C (±25ppm), 100MHz

CVXO-085XC-100.000 = 5.0V, -40°C to +85°C (±50ppmAPR), +5dBm, 100MHz

