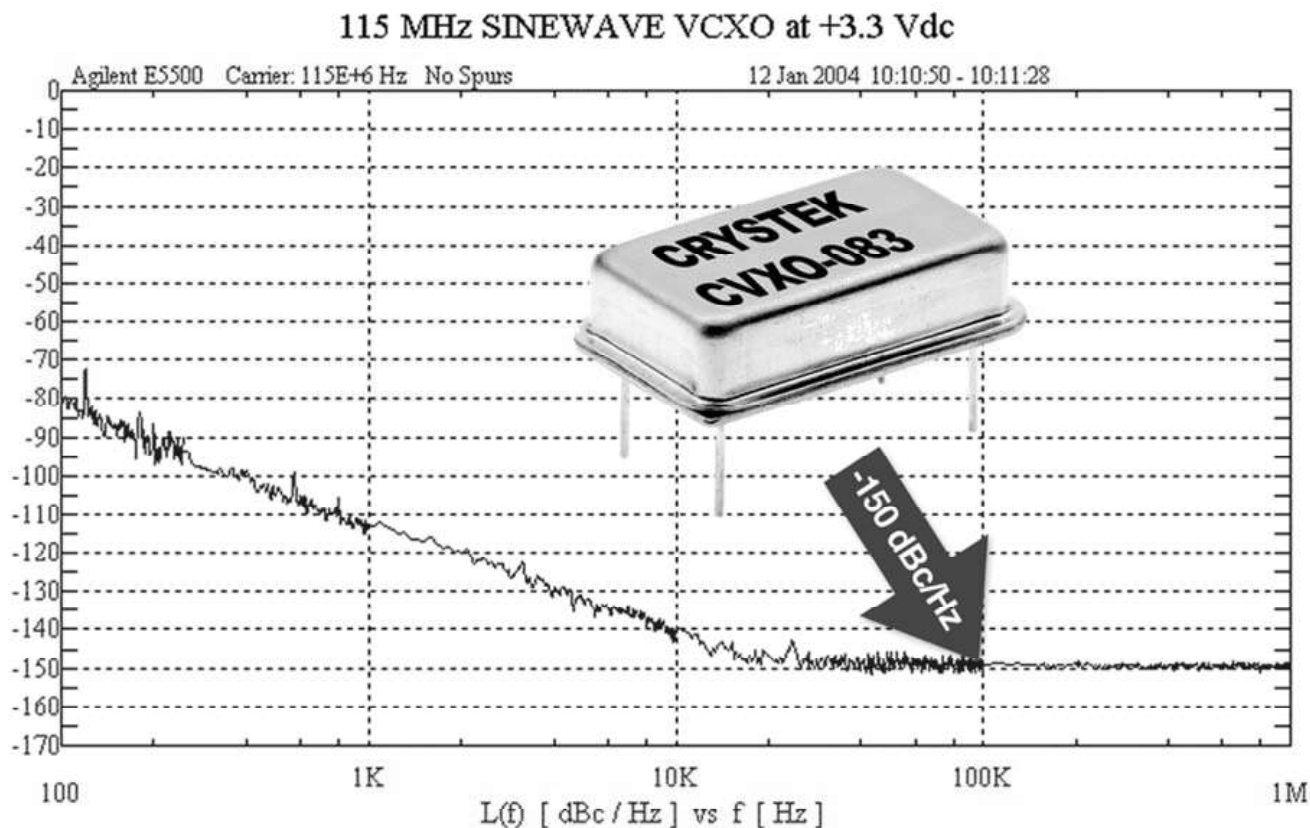




CRYSTEK
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True Sinewave Clock Oscillators and Voltage Controlled Crystal Oscillators



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 (-40°C to +85°C), 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:	10.000 MHz to 200.000 MHz
Temperature Range:	0°C to +70°C
	(Option X) -40°C to +85°C
Storage:	-45°C to 90°C
Input Voltage:	3.3V ±0.3V
	(Option 3) 5.0V ±0.5V
Input Current:	8mA Typ., 15mA Max @ 3.3V
	12mA Typ., 20mA Max @5.0V
Output:	True Sinewave
Load:	50 Ω
Power (std):	0dBm Min. into 50 Ω
	(Option B) +3dBm Min. into 50 Ω
	(Option C) +5dBm Min. into 50 Ω
	(Option D) +7dBm Min. into 50 Ω
Harmonics:	-20dBc Max
Sub-Harmonics:	None
Enable/Disable:	None
Phase Noise Floor:	-150dBc Typical
Aging:	<3ppm 1st/yr, <1ppm thereafter
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

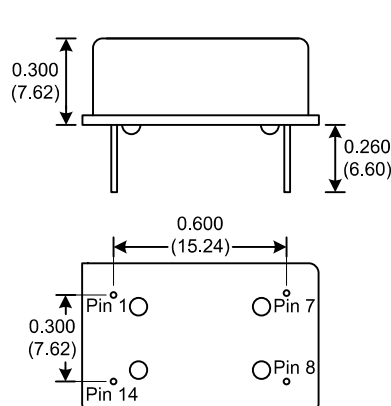
Phase Noise Typ.:

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

Part Number Example

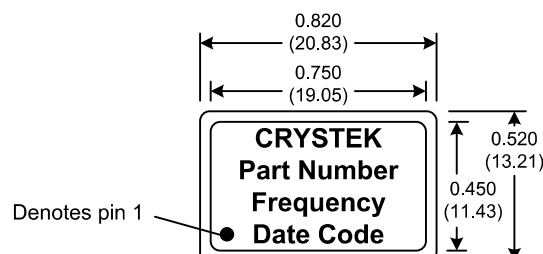
CCO-083-100.000 = 3.3V, 0°C to +70°C (±25ppm), 100MHz

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



Dimensions inches
(mm)

All dimensions are Max unless otherwise specified.



PIN	Connection
1	N/C or Volt Cntrl
7	GND
8	Output
14	Vdd

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