

# VOLTAGE CONTROLLED CRYSTAL OSCILLATOR

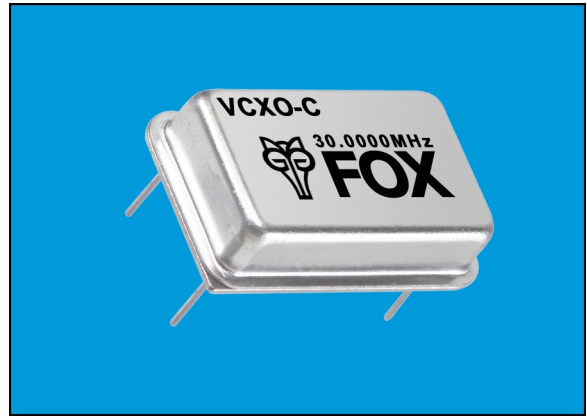
## VCXO-C

The VCXO-C series is a tight stability, voltage controlled crystal oscillator. The frequency can be pulled a minimum  $\pm 100$ PPM by applying a voltage between 0.5V & 4.5V to pin 1. This oscillator is designed to be used in applications requiring a general purpose VCXO with excellent cost vs performance characteristics.

### FEATURES

- HCMOS/TTL Output
- Pullability
- Tight Stabilities
- Low Power Consumption
- Rugged Resistance Weld
- Low Cost
- -40 ~ +85°C Option (R version)

• MODEL NUMBER SELECTION		
Model Number	Stability (MAX)*	Pullability(MIN) Vc = 2.5 ±2V
VCXO-C2	±50	±200
VCXO-C3	±50	±100
VCXO-C4	±25	±100
VCXO-C7	±25	±50
VCXO-C8	±100	±100



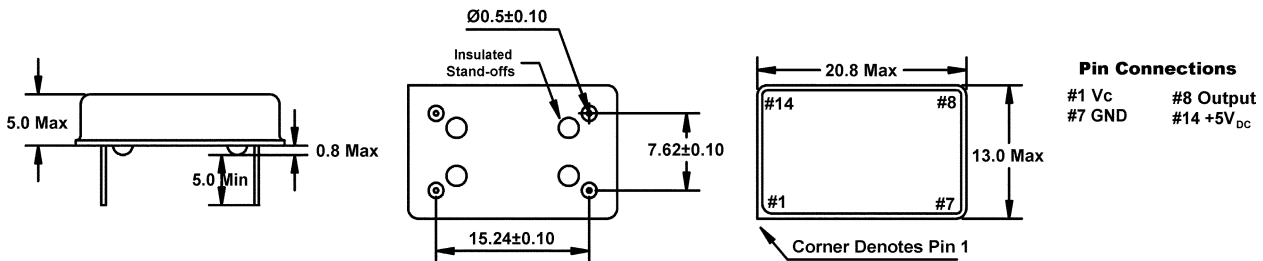
### • ELECTRICAL CHARACTERISTICS (VDD = 5.0V, CL = 15pF)

PARAMETERS	FREQUENCY RANGE	CONDITIONS	MIN	MAX	UNITS
Frequency Range (Fo)			1.000	40.000**	MHz
Temperature Range	1.000 ~ 40.000				
Operating (TOPR)			-10	+70***	°C
Storage (TSTG)			-30	+85	
Supply Voltage (VDD)	1.000 ~ 40.000		+4.75	+5.25	V
Control Voltage (Vc)	1.000 ~ 40.000		+0.5	+4.5	V
Input Current (IDD)	1.000 ~ 24.000			15	mA
	24.000+ ~ 30.000			20	
	30.000+ ~ 40.000			30	
Output Symmetry	1.000 ~ 40.000	2.5V	40	60	%
Rise Time (TR)	1.000 ~ 40.000	1.0V ~ 4.0V		10	nS
Fall Time (TF)		4.0V ~ 1.0V		10	
Output Voltage (VOL)	1.000 ~ 40.000	IOL = 3.2 mA		0.5	V
(VOH)		IOH = -0.1 mA	4.5		
Output Current (IOL)	1.000 ~ 40.000	VOL = 0.5 V		3.2	mA
(IOH)		VOH = 4.5V		-0.1	
Output Load	1.000 ~ 40.000	TTL Load		8	LSTTL
		HCMOS Load		15	pF
Start-up Time (Ts)	1.000 ~ 40.000			10	mS
Phase Noise	1.000 ~ 40.000	Fo + 1 kHz	-125		dBc/Hz
		Fo + 10 kHz	-130		
<b>Frequency</b>					
Stability vs Voltage	1.000 ~ 40.000	VDD = 5.0V ±0.25V	-1.0	+1.0	PPM
Linearity			-10	+10	%
Modulation Bandwidth	1.000 ~ 40.000		10		kHz

\* Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, vibration and Vc = 2.5V. All specifications subject to change without notice.

\*\* Higher frequencies available on an individual inquiry basis.

\*\*\* -40 ~ +85°C "R" version available (ex: VCXO-C3R) Rev. 06/27/00



All dimensions are in millimeters.