

**CXOH / CXOHV Model**  
**14 Pin Dip, 3.3V & 5V, HCMOS/TTL**

**Frequency Range:** 1MHz to 38MHz  
**Frequency Stability:** ±1ppm to ±5ppm  
**Freq. Stability vs Volt:** ±0.5ppm Max  
**Freq. Stability vs Load:** ±0.3ppm Max  
**Temperature Range:** -40°C to 85°C  
**Storage:** -55°C to 120°C  
**Input Voltage:** 3.3V or 5V ± 5%  
**Mech. Trim. Range:** ±3ppm Min  
 (Option V) Voltage Trim Pin 1  
**Input Current:** 15mA Typ, 30mA Max  
**Output:** HCMOS/TTL  
 Symmetry: 40/60% Max @ 50% Vdd  
 (Option Y) 45/55% Max  
 Rise/Fall Time: 4ns Typ, 10ns Max  
 Output Voltage: "0" = 10% Vdd Max  
 "1" = 90% Vdd Min  
 Load: 15pF/10TTL Max  
**Phase Noise Typ.:** 10Hz -100dBc/Hz  
 100Hz -130dBc/Hz  
 1KHz -140dBc/Hz  
 10KHz -145dBc/Hz  
 100KHz -150dBc/Hz  
**Aging:** <1ppm Max/Yr



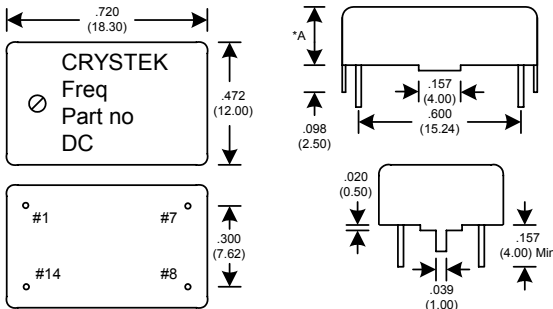
# Temperature Compensated Crystal Oscillator Voltage Trim Option Available



Designed to meet today's requirements for tighter frequency stability tolerance while reducing unit cost.

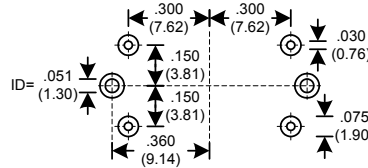
**VCTCXO Specification**

**Voltage Trim Pin 1:** ± 5ppm Min  
**Control Voltage:** (5V) 2.5V ± 2.5V  
 (3.3V) 1.65V ± 1.65V



**CXOH**

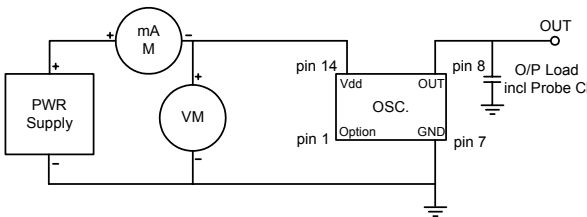
**Suggested PCB Layout**



PIN	Function
1	VT or NC
7	GND
8	OUT
14	Vcc

*A	.178 (4.50)
	.197 (5.00)

Dimensions inches (mm)  
 All dimensions are Max unless otherwise specified.



	Operating Temperature	Freq. Stability (± ppm)						
		1.0	1.5	2.0	2.5	3.0	4.0	5.0
A	0°C to 50°C							
B	-10°C to 60°C			2.0	2.5	3.0	4.0	5.0
C	-10°C to 70°C			2.0	2.5	3.0	4.0	5.0
D	-20°C to 70°C			2.0	2.5	3.0	4.0	5.0
E	-30°C to 60°C			2.0	2.5	3.0	4.0	5.0
F	-30°C to 70°C			2.0	2.5	3.0	4.0	5.0
G	-30°C to 75°C			2.0	2.5	3.0	4.0	5.0
H	-40°C to 85°C					3.0	4.0	5.0
P		A	B	C	D	E	F	

Table 1

**Crystek Part Number Guide**

**CXOHV - 4 B C 3 Y - 25.000**

#1	#2	#3	#4	#5	#6	#7	#8
#1 Crystek TCXO HCMOS/TTL	#2 V or blank = (V = Volt Trim) (Blank = Mech. Trim)	#3 4 or blank = Height (4 = 4.5mm) (Blank = 5.0mm)	#4 Letter = Operating Temperature (see table 1)	#5 Letter = Frequency Stability (see table 1)	#6 3 or blank = Input Volt (3 = 3.3 volts) (Blank= 5V)	#7 Y or blank = Symmetry (Y=45/55) (Blank = 40/60)	#8 Frequency in MHz: 3 or 6 decimal places

Example:  
 CXOH-4BC3Y-25.000 = mech. trim, 4.5mm, -10/60, ±2.5ppm, 3.3V, 45/55%, 25.000MHz  
 CXOHV-4B3CY-25.000 = volt. trim, 4.5mm, -10/60, ±2.5ppm, 3.3V, 45/55%, 25.000MHz

Specifications subject to change without notice.

TD-020811 Rev. E

