

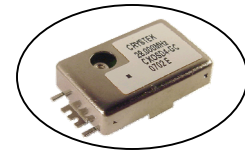
# Temperature Compensated Crystal Oscillator

## Voltage Trim Option Available

### CXOHD4 / CXOHVD4 Model

#### 12.2x18.6 SMD, 3.3V & 5V, HCMOS/TTL

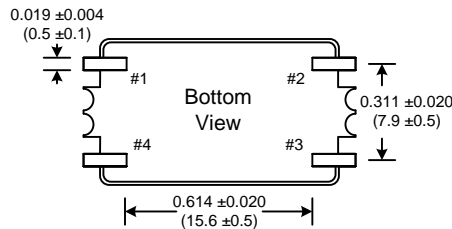
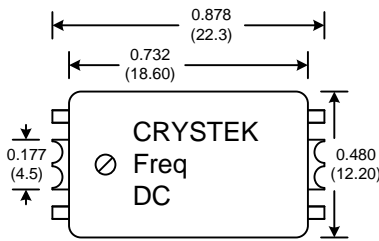
<b>Frequency Range:</b>	1 MHz to 38.880 MHz
<b>Frequency Stability:</b>	±1ppm to ±5ppm
<b>Freq. Stability vs Volt:</b>	±0.5ppm Max
<b>Freq. Stability vs Load:</b>	±0.3ppm Max
<b>Temperature Range:</b>	-40°C to 85°C
<b>Storage:</b>	-45°C to 120°C
<b>Input Voltage:</b>	3.3V or 5V ± 5%
<b>Mech. Trim. Range:</b>	±3ppm Min
	(Option V) Voltage Trim Pin 1
<b>Input Current:</b>	15mA Typ, 30mA Max
<b>Output:</b>	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
<b>Phase Noise Typ.:</b>	10Hz -100dBc/Hz
	100Hz -130dBc/Hz
	1kHz -140dBc/Hz
	10kHz -145dBc/Hz
	100kHz -150dBc/Hz
<b>Aging:</b>	<1ppm Max/yr



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

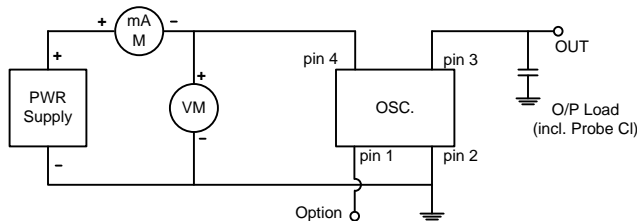
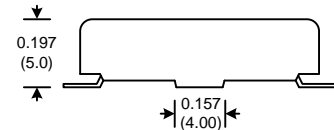
### VCTCXO Specification

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



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

PIN	Function
1	VT or NC
2	GND
3	OUT
4	Vcc



### Crystek Part Number Guide

**CXOHVD4 - B C 3 Y - 25.000**

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

Example:  
CXOHD4-BC3Y-25.000 = mech. trim, -10/60, ±2.5ppm, 3.3V, 45/55%, 25.000MHz  
CXOHVD4-BCY-25.000 = volt. trim, -10/60, ±2.5ppm, 3.3V, 45/55%, 25.000MHz

	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

Specifications subject to change without notice.

TD-020815 Rev. F