

XCO

FAST TURNAROUND CLOCK OSCILLATOR

DESCRIPTION

The XCO clock series is a cutting edge family of low to high frequency, **low jitter output**, **single** or **multi - frequency** clock oscillators. The XCO clocks are available in **7.0 x 5.0**, **5.0 x 3.2**, and **3.2 x 2.5 mm** ceramic packages with output frequencies ranging from **10 MHz to 1.2 GHz**. Customer can select up to four output frequencies. Its outstanding flexibility significantly reduces design cycle time and overall cost. The XCO clock design incorporates a low frequency crystal along with low jitter frequency synthesizer to provide a wide range of frequencies. The XCO clocks are available in **LVC MOS**, **LVPECL** and **LVDS** outputs, allowing for a wide variety of applications.

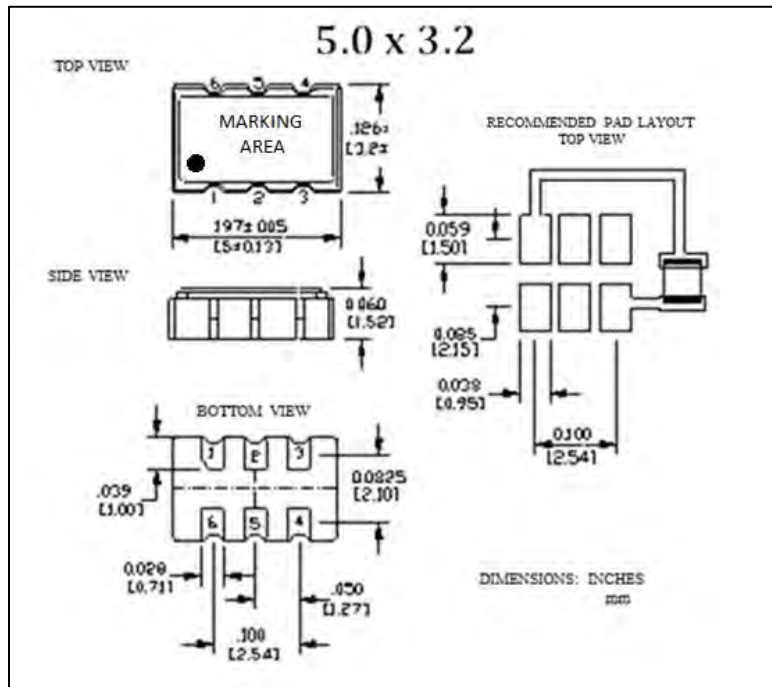
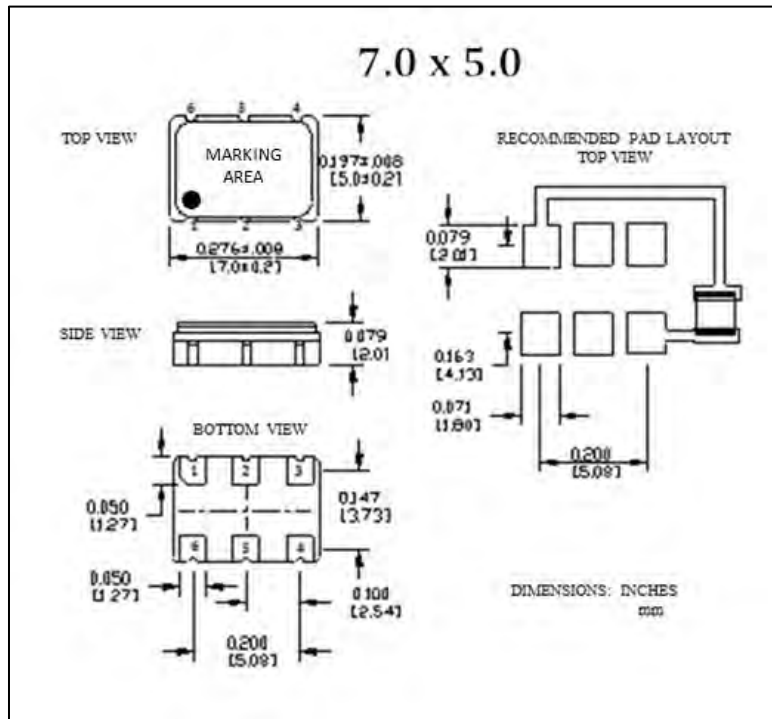
This product is ideal for the time conscious customer as shipments are made within days of a placed order.

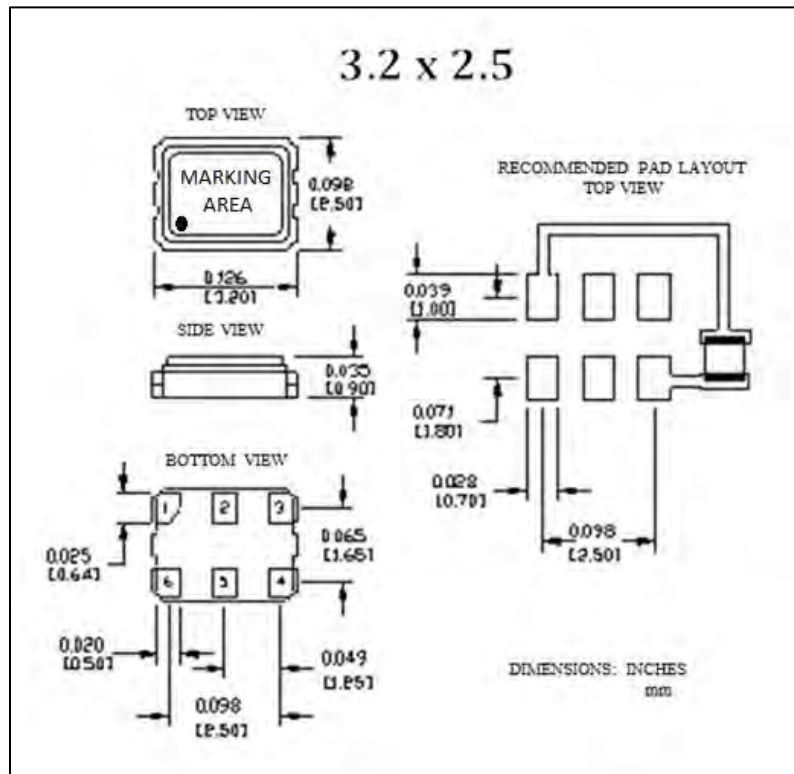
FEATURES

- **Fast Turnaround (Ships Within Days)**
- **Very Low Jitter (Typical 0.6 ps)**
- **10 MHz to 1.2 GHz Frequency Range**
- **Selectable Single, Dual, or Quadruple Frequencies**
- **Stability as low as ± 20 ppm ($-40 \sim 85$ °C)**
- **Available Sizes:**
 - ✓ **7.0 x 5.0 mm**
 - ✓ **5.0 x 3.2 mm**
 - ✓ **3.2 x 2.5 mm**

SELECTOR GUIDE	LVC MOS			LVDS			LVPECL		
Package Size (mm)	7.0x5.0	5.0x3.2	3.2x2.5	7.0x5.0	5.0x3.2	3.2x2.5	7.0x5.0	5.0x3.2	3.2x2.5
Family Part Number	XCO-74	XCO-54	XCO-34	XCO-78	XCO-58	XCO-38	XCO-79	XCO-59	XCO-39
Frequency Range (MHz)	10 – 250			10 – 1200			10 - 1200		
Frequency Stability (ppm)	$\pm 20, \pm 25, \pm 50, \pm 100$			$\pm 20, \pm 25, \pm 50, \pm 100$			$\pm 20, \pm 25, \pm 50, \pm 100$		
Number of Frequencies	1, 2, 4			1, 2, 4			1, 2, 4		
Supply Voltage (V)	2.5, 3.3			2.5, 3.3			2.5, 3.3		
Temperature Range (°C)	-20 ~ +70			-20 ~ +70			-20 ~ +70		
	-40 ~ +85			-40 ~ +85			-40 ~ +85		
Enable/Disable Pin	Pin 1, Pin 2, or None			Pin 1, Pin 2, or None			Pin 1, Pin 2, or None		

MECHANICAL DIMENSIONS AND PIN FUNCTIONING





Notes (Applicable To All Packages)

¹ Enable / Disable feature is available on either pin 1 or pin 2. See options on part numbering table.

² There is no enable/disable option when the number of output frequencies is four.

³ 0.01 μ F external bypass capacitor is recommended as seen in solder pattern for 7 x 5 mm, and required for 5 x 3.2 and 3.2 x 2.5 mm

PIN	SYMBOL	FUNCTION
1	see below	Refer to Pin Logic Table Below
2	see below	Refer to Pin Logic Table Below
3	GND	Case and Electrical Ground
4	Output 1	Output 1
5	Output 2 or NC	Complementary Output (LVPECL, LVDS) or N/C (LVCMOS)
6	V _{cc}	Power Supply Voltage

PIN LOGIC TABLE			
NUMBER OF FREQUENCIES	PIN 1	PIN 2	FREQUENCY OUTPUT
1	Enable/Disable	N/C	F ₁
	N/C	Enable/Disable	F ₁
2	Enable/Disable	"0" Logic Level	F ₁
		"1" Logic Level	F ₂
	"0" Logic Level	Enable/Disable	F ₁
	"1" Logic Level		F ₂
4	"0" Logic Level	"0" Logic Level	F ₁
	"0" Logic Level	"1" Logic Level	F ₂
	"1" Logic Level	"0" Logic Level	F ₃
	"1" Logic Level	"1" Logic Level	F ₄