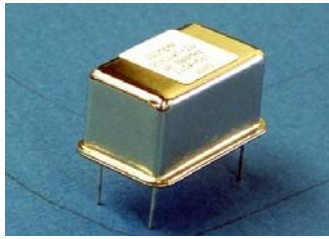


# OEXO 147 SERIES



## Features:

- Typical 20.4 x 12.8 x 11.0 mm, standard DIP 14 package
- Stratum 3  
(Overall  $\pm 4.6$  ppm including 10 years aging)
- AT-Cut Crystal

The OEXO 147 series oscillators feature small packages designed for applications where space is at a premium and good frequency stability is required. The oscillators can be used in many communications applications including FemtoCell. A choice of quartz resonators offers a variety of performance versus cost options to fit most applications.

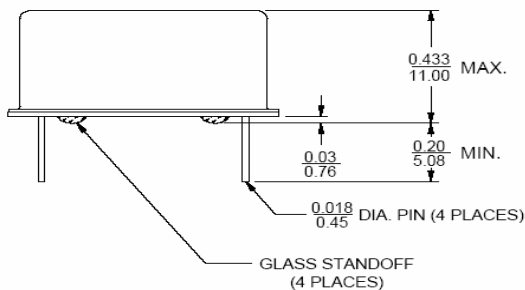
## Ordering Information

OEXO	Package (mm)	Supply Voltage (V)	Pulling Range (ppm)	Freq. Stability (ppb)	Temp. Range (°C)	Output Logic and Symmetry		Oscillator Mode	Pin Out	Lead Free	Freq. (MHz)
147 Series	L: 20.4	3.3	$\pm 5.0$	$\pm 30$	0~+50	Output	Symmetry	* Not selectable by customer	Normal	RoHS Compliant	XX.XXXXXX
	W: 12.8	5.0	$\pm 3.0$	$\pm 50$	0~+70	CMOS	50 $\pm$ 5%		Please refer to "OUTLINE DRAWING"	Not RoHS Compliant	
	H: 11.0		NC	$\pm 100$ $\pm 200$	-30~+70						

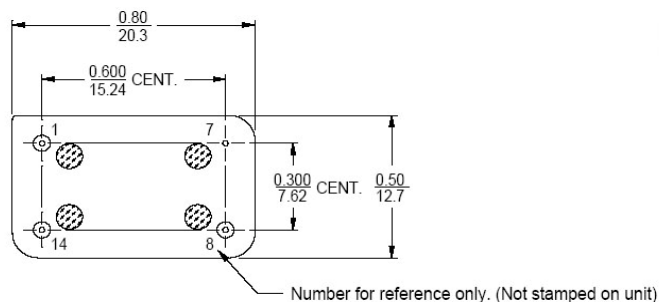
Ordering Example: OEXO147; V<sub>DD</sub>: 5V, Pulling Range  $\pm 5.0$  ppm; Freq. Stability: 50ppb; Temp. Range: 0°C to +70°C; Load: CMOS, Symmetry: 50 $\pm$ 5%; Appearance; Normal; RoHS Compliant; Freq. 38.880000MHz

## Outline Drawing

[TOP VIEW]



[BOTTOM VIEW]



## Freq. Stability vs. TEMP. Range

Temp. (°C)	ppb	$\pm 30$	$\pm 50$	$\pm 100$	$\pm 200$
0 to +50		○	○	○	○
0 to +70		△	○	○	○
-30 to +70		X	△	○	○

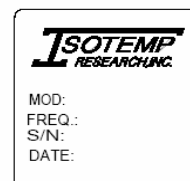
○ = Standard △ = Available (case by case) X = Not available

## PIN CONNECTIONS

PIN	FUNCTION
1 (See Note 1)	VCO INPUT or NOT CONNECTED
7	0 VOLTS & CASE
8	R.F. OUTPUT
14	+VDC

Note 1. If the specification does not specify parameters for PIN 1 then PIN 1 is not internally CONNECTED

## MARKING



INCH  
mm (Reference only)

Contact e-mail: [info@isotemp.com](mailto:info@isotemp.com) for special request

# OCXO 147 SERIES

## Electrical Specification

	Min.	Nominal	Max.	Note	Unit
<b>Output</b>					
Frequency		10.0			MHz
Wave Form		CMOS			
Level "1"	3.5				V
Level "0"			0.3		
Load		15			pF
Spurious			-60		dBc
<b>Frequency Stability</b>					
Ambient			±200	Referenced to +25°C	ppm
Operating Temperature	-30		+70		°C
Storage Temperature	-40		+85		
Aging *					
At time of shipment					
Daily			±5.0		ppb
Yearly			±0.5		ppm
10 Years			±4.6	Overall	
Voltage			±50	VDC ±5% change	ppb
Warm-up			±100	In 5 minutes @+25°C (Reference to 30 minutes)	
Phase Noise @ 10 MHz					dBc
@ 10 Hz			-85		
@ 100 Hz			-115		
@ 1 kHz			-135		
@ 10 kHz			-140		
<b>Electrical Frequency Adjustment</b>					
Range	5				±ppm
Control	0		+5		V
Slope		Positive			
VCO Input Impedance	100				KΩ
<b>Input Power</b>					
Supply Voltage	4.75	5.0	5.25		V
@ turn on			2.5		W
Steady state @25°C			1.0		