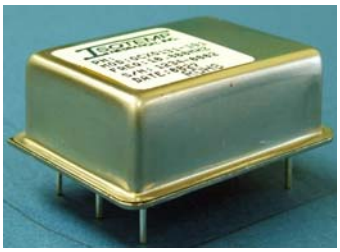
OCXO 131 Series



The OCXO 131 series oscillators feature small European style packages designed for applications where space is at a premium and good frequency stability is required. The oscillators can be used in phased locked loops or as stand alone references in many communications applications such as Stratum 3 switching apparatus or cellular telephone base stations. An internal voltage reference is provided to make frequency corrections via a simple potentiometer or may be used as a voltage source for a digital to analog converter. The package is a hermetically sealed through hole printed circuit board mount. A choice of quartz resonators offers a variety of performance versus cost options to fit most applications.

Features:

- Typical 36.3 x 27.2 x 19.1 mm.
- SC-Cut Crystal
- High Stability; Low Phase Noise
- CMOS//Sine Wave output; Fast Warm-up

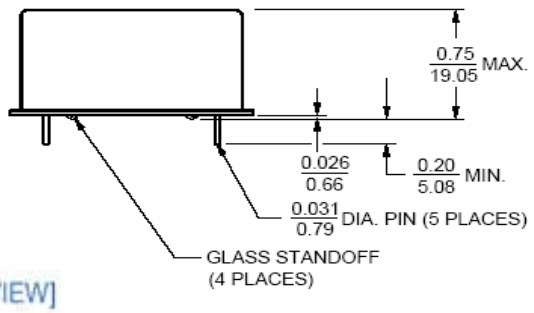
Ordering Information

OCXO	Package (mm)	Supply Voltage (V)	Pulling Range (ppm)	Freq. Stability (ppb)	Temp. Range (ºC)	Output Logic and Symmetry		Oscillator Mode	Pin Out	Lead Free	Freq. (MHz)
131 Series	L: 36.3 W: 27.2 H: 19.1	12.0 5.0	±0.4	± 5 ± 10 ± 20 ± 30 ± 50	0~+50 0~+70 -30~+70	Output CMOS15pF Sine Wave	Symmetry 50±10%	* Not selectable by customer	Normal Please refer to "OUTLINE DRAWING"	RoHS Compliant Not RoHS Compliant	XX.XXXXXX

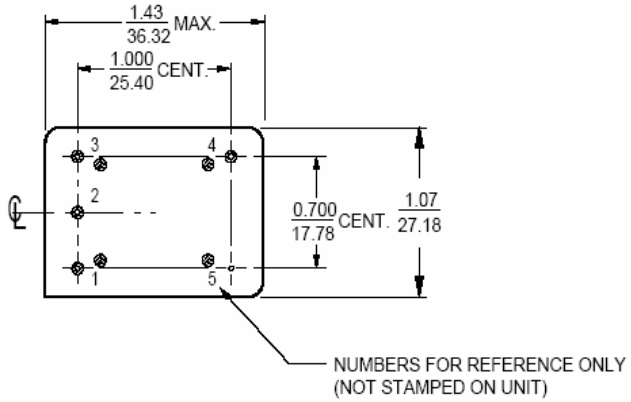
Ordering Example: OCXO131 Series; V_{DD}: 12V; Pulling Range: ±0.4ppm; Freq. Stability: ± 20 ppb; Temp. Range: -30ºC to 70ºC; Sine Wave; Pin Out: Normal; RoHS Compliant; Freq. 10.000000 MHz.

Outline Drawing

[TOP VIEW]



[BOTTOM VIEW]



INCH
mm (Reference only)

Freq. Stability vs. TEMP. Range

ppb / Temp. (ºC)	±5	±10	: ±20
0 to +50	O	O	O
0 to +70	△	O	O
-30 to +70	△	△	O

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

PIN CONNECTIONS	
PIN	FUNCTION
1 (See Note 1)	VCO INPUT or NOT CONNECTED
2 (See Note 1)	REFERENCE VOLTAGE or NOT CONNECTED
3	+ VDC
4	R.F. OUTPUT
5	0 VOLTS & CASE

Note1: If the specification does not specify parameters for either PIN1 or PIN2 then that respective PIN is not internally CONNECTED.

MARKING

OCXO 131 Series

Electrical Specification

	Min.	Nominal	Max.	Note	Unit
Output					
Frequency		10.00			MHz
Wave Form		Sine Wave			
Level	6.0	8.0	10.0		dBm
Load		50			Ω
Harmonics		-30			dBc
Spurious		-60			
Frequency Stability					
Ambient			±20	Referenced to +25ºC	ppb
Operating Temperature	-30		+70		ºC
Aging *					
At time of shipment			±0.5		ppb
After indefinite storage					
Daily			±0.5	After 30 days	ppb
Yearly			±100		
10 Years			±300		
Voltage			±5	VDC ±5% change	
Warm-up			±20	In 5 minutes @+25ºC (Reference to 4 hours)	
Phase Noise @ 10 MHz					dBc
@ 10 Hz			-120		
@ 100 Hz			-135		
@ 1 kHz			-150		
@ 10 kHz			-150		
@ 100 kHz			-150		
Electrical Frequency Adjustment					
Range	0.4		0.9		±ppm
Control	0.0		8.0		V
Slope		Positive			
Center	3.2	4.0	4.8	Control Voltage at which nominal frequency occurs at time of shipment	V
Input Impedance	100				KΩ
Input Power					
Voltage	11.4	12.0	12.6		V
@ turn on			3.8		W
Steady state @25ºC			1.5		
Reference Voltage					
Voltage	7.6	8.0	8.4	Optional 4.0V (Note1) 5.0V (Note2)	V
Load	9.0		∞		KΩ
Temperature Stability			±0.015		VDC

Note 1: For all +5V input power Units
Note 2: For +12V CMOS Units

* All aging stabilities are after storage of up to one year and apply after 30 days of continuous operation.
The daily aging rate also applies at the time of shipment from factory.

** The electronic frequency adjustment rage is sufficient for the life of the oscillator specification subject to change with frequency.

Available Frequency Range: 5 MHz to 40 MHz Including 5.0, 10.0, 16.384, 19.44, 24.576, and 32.768 MHz