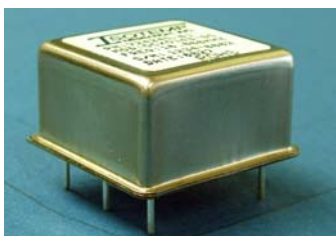


OCXO 143 Series



The OCXO 143 series oscillators are only one inch square and designed for thru-hole mounting. These packages offer much tighter frequency stability than TCXOs and in some cases cost less. Frequency adjustment is by electrical means using a potentiometer or D/A converter. A Convenient voltage reference source is available for this purpose. Your choice of AT or SC cut resonators are available to meet your frequency stability requirements.

Features:

- Typical 25.4 x 25.4 x 15.0 mm.
- SC-Cut Crystal
- High Stability; Low Phase Noise
- CMOS/Sine Wave; Fast Warm-up

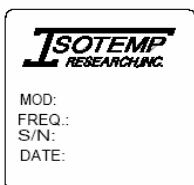
Ordering Information

OCXO	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)
143 Series	L: 25.4 W: 25.4 H: 15.0	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

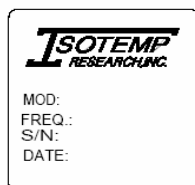
Ordering Example: OCXO143 Series; V_{DD}: 5V, Pulling Range ±0.4ppm; Freq. Stability: ±20ppb; Temp. Range: 0°C to + 70°C; Sine Wave; Pin Out: Normal; RoHS Compliant; Freq. 10.000000 MHz

Outline Drawing

MARKING



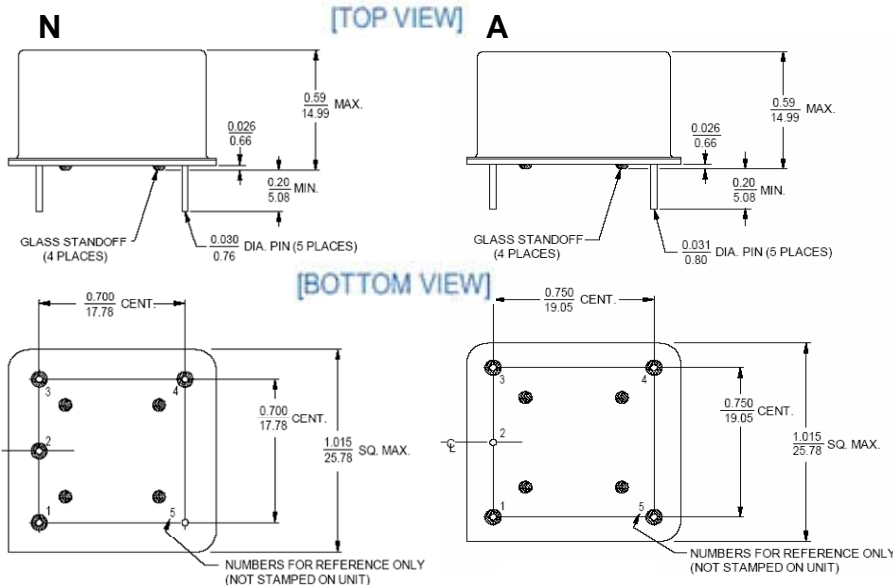
MARKING



Freq. Stability vs. TEMP. Range

Temp. (°C)	ppb	A: ±5	B: ±10	C: ±20
0 to +50		○	○	○
0 to +70		△	△	○
-30 to +70		X	△	○

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



PIN CONNECTIONS - N

PIN	FUNCTION
1*	VCO INPUT
2*	REFERENCE VOLTAGE
3	+VDC
4	R.F. OUTPUT
5	0 VOLTS & CASE

PIN CONNECTIONS - A

PIN	FUNCTION
1	R.F. INPUT
2	0 VOLTS & CASE
3*	VCO INPUT
4*	REFERENCE VOLTAGE
5	+VDC

* If the specification does not specify parameters for VCO input or reference voltage then that respective PIN is not internally CONNECTED.

INCH
mm (Reference only)

Contact e-mail: info@isotemp.com for special request

OCXO 143 Series

Electrical Specification

	Min.	Nominal	Max.	Note	Unit
Output					
Frequency		10.00			MHz
Wave Form		Sine Wave			
Level	2.0	4.0	6.0		dBm
Load		50			Ω
Harmonics		-25			dBc
Spurious		-60			
Frequency Stability					
Ambient			± 20	Referenced to +25°C	ppb
Operating Temperature	0		+70		°C
Aging *					
At time of shipment			± 1.0		ppb
After indefinite storage					
Daily			± 1.0	After 30 days	ppb
Yearly			± 100		
10 Years			± 350		
Voltage			± 10	VDC $\pm 5\%$ change	ppb
Warm-up			± 20	In 3 minutes @+25°C (Reference to 1 hours)	
Phase Noise @ 10 MHz					dBc
@ 10 Hz			-115		
@ 100 Hz			-135		
@ 1 kHz			-140		
Electrical Frequency Adjustment					
Range	0.4		1.0		\pm ppm
Control	0.0		4.0		V
Slope		Positive			
Center	1.4	2.0	2.6	Control Voltage at which nominal frequency occurs at time of shipment	V
Linearity			10		%
Input Impedance	50				K Ω
Input Power					
Voltage	4.75	5.0	5.25		V
@ turn on			3.7		W
Steady state @25°C			1.5		
Reference Voltage					
Voltage	3.8	4.0	4.2		V
Load	9		∞		K Ω
Temperature Stability			± 0.01		VDC

- * 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 range is sufficient for the life of the oscillator specifications subject to change with frequency.

Available Frequency Range: 5 MHz to 40 MHz Including 5.0, 10.0, 16.384, 19.44, 24.576, 24.704 and 32.768 MHz