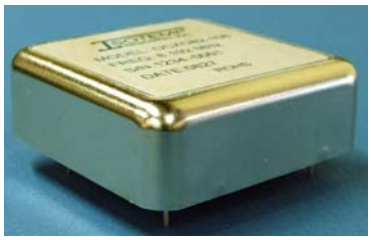
OCXO 82 Series



The OCXO 82 series oscillators are currently our most popular models because of the price and performance options available. The package is a hermetically sealed printed circuit board mount with optional chassis mounting upon request. Applications include telecommunication products such as Stratum 3E clocks as well as base station frequency references for cellular, CDMS, TDMA, GSM, and paging. Other uses include GPS navigation and instrumentation.

Features:

- Typical 50.8 x 50.8 x 26.2 mm.
- SC-Cut Crystal
- Stratum 3E Performance
- High Stability; Low Phase Noise
- Sine Wave or CMOS output; Fast Warm-up

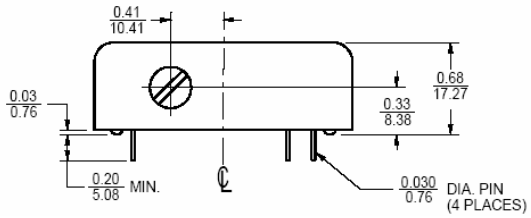
Ordering Information

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)
82 Series	L: 50.8 W: 50.8 H: 26.2	12.0	±0.2 ±0.4	± 2 ± 5 ± 10 ± 20 ± 30	0~+50 0~+70 -30~+70	Output CMOS15pF Sine Wave	Symmetry 50±5%	* Not selectable by customer	Normal Please refer to "OUTLINE DRAWING"	RoHS Compliant Not RoHS Compliant	XX.XXXXXX

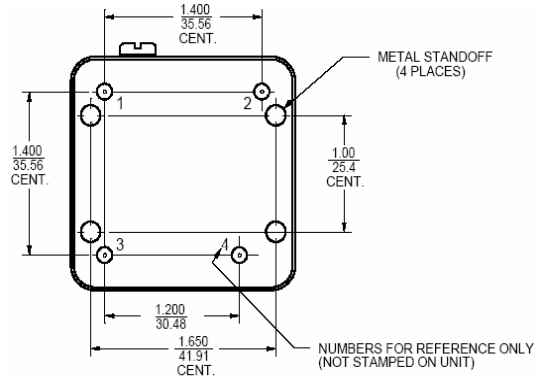
Ordering Example: OCXO 82 Series; 12V; pulling range: ±0.2 ppm; Freq. Stability: ± 10ppb; Temp. Range: -30ºC to 70ºC; Sine Wave, Pin Out: Normal; RoHS Compliant; Freq. 5.000000MHz.

Outline Drawing

[TOP VIEW]



[BOTTOM VIEW]



INCH
mm (Reference only)

Freq. Stability vs. TEMP. Range

ppb / Temp. (ºC)	±2	±5
0 to +50	O	O
0 to +70	△	O
-30 to +70	X	O

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

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

Note1: If the specification does not specify parameters for PIN4 is not internally CONNECTED.

MARKING

OCXO 82 Series

Electrical Specification

	Min.	Nominal	Max.	Note	Unit
Output					
Frequency		8.192			MHz
Wave Form		Rectangular			
Level "1"	4.4				V
Level "0"			0.4		V
Load		3			TTL
Spurious			-60		dBc
Frequency Stability					
Ambient			±10	Referenced to +30 ºC	ppb
Operating Temperature	0		+60		ºC
Aging *					
At time of shipment			±1.0	Per day	ppb
After indefinite storage					
Daily			±1.0	After 30 days	ppb
Yearly			±100		
10 Years			±400		
Voltage			±5.0	±10% Change	
Warm-up			±20	In 30 minutes @ +25 ºC (Reference to 4 hours)	
Phase Noise @ 8.192 MHz					dBc
@ 10 Hz			-120		
@ 100 Hz			-140		
@ 10 kHz			-150		
Mechanical Frequency Adjustment					
Range	0.4				±ppm
Control				Multi-turn trimmer	
Input Power					
Voltage	10.8	12	13.2		V
@ turn on, current			400		mA
Steady state @25ºC			2.0		W

* 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 80 MHz Including 5.0, 10.0, 16.384, 19.44, 24.576,24.704 and 32.768 MHz