

OCXO

6.2 TOC0907

9.7 x 7.5 x 4.1mm Oven Controlled
Crystal Oscillator Features

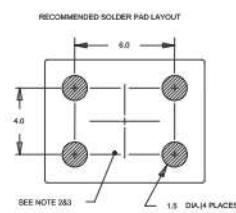
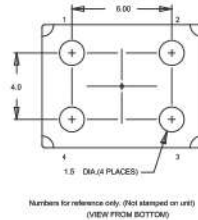
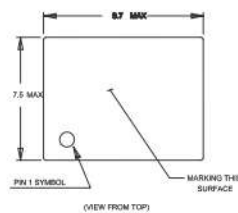
FEATURES

- Dimension 9.7*7.5mm, miniaturized 4-Pad SMD package
- Low Power Consumption
- ± 20 ppb stability over $-40 \sim +85^{\circ}\text{C}$
- Stratum 3 (Overall ± 4.6 ppm including 20 years aging)

TYPICAL APPLICATION

- Small Cell, Portable Telecommunication Device
- Test and Instrumentation
- Synthesizer, Digital switch, Reference Timing Circuit
- Packet Timing Protocol (eg. IEEE 1588)

DIMENSIONS



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

Note 1: If the specification does not specify parameters for PIN 1, then PIN1 must remain unconnected.

Note 2: Copper in this area should be kept to a minimum to reduce heat loss from OCXO.

Note 3: Bottom side reflow is forbidden unless specified in the oscillator specification.

ELECTRICAL SPECIFICATION

Parameter		Min.	Typ.	Max.	Unit.	Test Condition
Output	Frequency	10	—	40	MHz	Available frequency range is from 10MHz to 40MHz. Standard frequencies are 10, 12.8, 19.2, 20, 25 and 30.72MHz.
	Waveform	—	Rectangular Clipped Sine	—	—	Please contact us for detail information.
	Level	—	—	—	—	
	"1" Level	2.4	—	—	V	@+1.65V
	"0" Level	—	—	0.4		
	Duty Cycle	45	50	55	%	
	Clipped Sine	0.8	—	—	Vp-p	
	Load (Rectangular/Clipped Sine)	15pF / 10Kohm / 10pF				
	Spurious	—	—	-60	dBc	
Frequency Stability	Ambient	-20	—	+20	ppb	$-40 \sim +85^{\circ}\text{C}$, referenced to $+25^{\circ}\text{C}$ Refer to Freq. Stability Vs Temp. Range table.
	Aging	—	—	—		Per day, at time of shipment.
	Daily	-3.0	—	+3.0	ppb	after 30 days
	Yearly	-0.6	—	+0.6	ppm	
	10 years	-3.0	—	+3.0		
	Voltage	-5	—	+5	ppb	$\pm 5\%$ Change
	Warm-up	-0.1	—	+0.1	ppm	In 5 minutes @ $+25^{\circ}\text{C}$, referenced to 1 hour.

OCXO

Parameter		Min.	Typ.	Max.	Unit.	Test Condition
Phase Noise @20 MHz		—	-98	-92	dBc/Hz	@10 Hz
		—	-126	-120		@100 Hz
		—	-145	-140		@1 kHz
		—	-152	-150		@10 kHz
Electrical Frequency Adjustment	Range	—	—	-5.0	ppm	VCO@ 0V
		5.0	—	—		VCO@ 3.3V
	Control	0	1.65	3.3	V	
	Slope	—	Positive	—		
Input impedance		100	—	—	kΩ	
Input Power	Voltage	3.135	3.3	3.465	V	5.0V input voltage is available. Consult factory for control voltage and output level.
	Current	—	—	350	mA	@ turn on
	Steady state	—	0.3	0.4	W	@ +25°C

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C) \ ppb	±5	±10	±20	±30	±50
-20 ~ +70	△	○	○	○	○
-40 ~ +85	×	△	○	○	○

*o: Available △: Condition X: Not available

Note: not all combination of options are available. Other specifications may be available upon request.
Specifications subject to change without notice.