



Features and Benefits

- High frequency stability(+/-0.1ppb from -10°C to +60°C)
- Less than +/- 0.2 ppb per day aging at time of shipment
- Low phase noise level(-165dBc/Hz, TYP, floor)
- Excellent Allan variance, 1s to 1×10^{-12}
- Small size packaging

Typical Applications

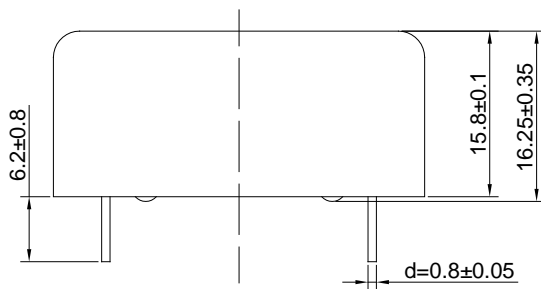
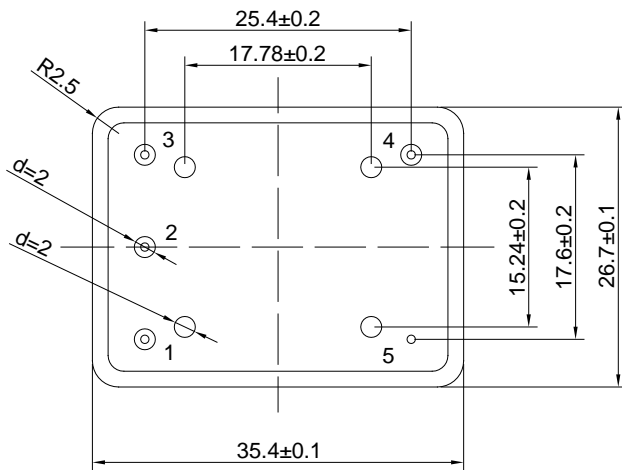
- Rubidium Standard Replacement
- GPS Receiver
- Instrumentation
- Stratum 2 Clock System

Description

The OCXO3307 " F " version is a double oven design ideal for 24 hour hold-over applications such as 4G LTE or high performance GPS systems.

Mechanical Drawing & Pin Connections

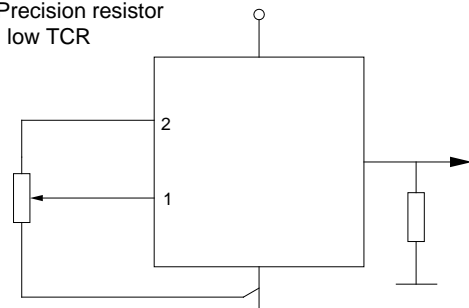
Drawing No: MD140080-1



Pin	Signal
1	Electrical tuning
2	Reference voltage
3	+V Supply
4	RF OUT
5	GND

Unit : mm

R - Precision resistor with low TCR





Specifications

OCXO Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F ₀			10		MHz	
RF Output							
Sine wave	Level	L		+6	+8		dBm
	Load	RL		45	50	55	Ohm
	Harmonics Level					-30	dBc
Sub-harmonics Level				None			
Power Supply							
Voltage	V _{cc}		4.75	5.0	5.25	V	
Power Consumption		Steady-state@+25°C		5		W	
		Warm-up		1.25	1.5	W	
Warm-up Time		ToΔf/f=1e-8, at 25°C Ref. to 1h of operation			5	Min.	
Frequency Control							
Control Voltage	V _c		0		4.2	V	Tuning slop-positive
Preset Control Voltage	V _{co}	Disconnect V _c PIN	1.6	2.1	2.6	V	
Tuning Range			+/-0.3	+/-0.4		ppm	
Reference Voltage	V _{ref}		4.1	4.2	4.3	V	
Frequency Stability							
Vs. Operating Temperature Range		-10°C to +60°C ref +25°C			+/-0.1	ppb	
Vs. Supply Voltage Change		Ref. V _{cc} typ.			+/-0.1	ppb	
Allan Variance		1.0s	1			e-12	
Aging	Per Day	After 30 days of operation			+/-0.2	ppb	
	Per Year				+/-15	ppb	
Phase Noise							
Phase Noise		@1Hz		-100		dBc/Hz	
		@10Hz		-130			
		@100Hz		-147			
		@1KHz		-155			
		@10KHz		-165			
Environmental							
Operating Temperature Range	-10°C to +60°C						
Storage Temperature Range	-60°C to +90°C						
Humidity	Hermetically sealed						
Mechanical Shock	Per MIL-STD-202, 30G half sine pulse, 11ms						
Vibration	Per MIL-STD-202, 5G to 500Hz						
Soldering Conditions	Hand solder only – not reflow compatible 260°C 10s(on pins)						
Washing Conditions	Washing with water or alcohol based detergent allowed only with final enough drying stage						