

Features and Benefits

- Frequency 10.000000MHz
- Very low power consumption(to 0.18W at +25°C)
- DIP14 compatible 9.3mm height packaging
- High frequency stability(up to +/-100ppb over -40°C to +85°C)
- Very fast warming-up 60s typical (to 15s optionally)
- Wide frequency range(8 – 150MHz)

Description

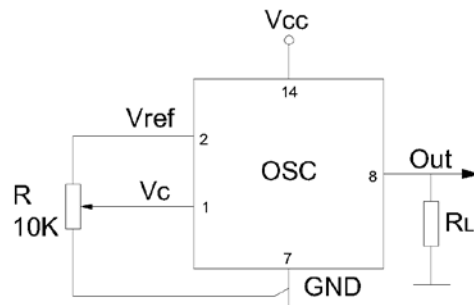
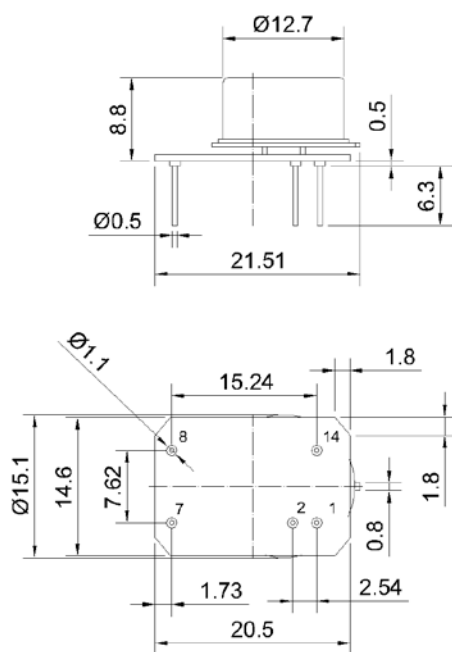
OCXO3307C series offers wide temperature operation from -40°C to +85°C with outstanding frequency stability and low phase noise performance all with very fast warm-up and less than 0.18W power dissipation at 25°C.

Typical Applications

- UHF Synthesizers
- SATCOM System
- Portable Microwave Applications

Mechanical Drawing & Pin Connections

Drawing No: MD140076-1



Pin	Signal
1	Electrical tuning
2	Reference voltage
7	GND
8	RF Out
14	+V Supply

Unit : mm

Specifications

OCXO Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F ₀			10		MHz	
RF Output							
Sine wave	Level	L	+5	+8		dBm	
	Load	RL		50		Ohm	
	Harmonics Level				-25	dBc	
Sub-harmonics Level				None			
Power Supply							
Voltage	V _{cc}		4.75	5.0	5.25	V	
Power Consumption		Steady-state@+25°C		0.18		W	
		Warm-up		1.0		W	
Warm-up Time		To Δ f/f=1e-7, at 25°C Ref. to frequency after 15min.			60	s	15s-optional
Frequency Control							
Control Voltage	V _c	V _{cc} =5V	0		4.2	V	Tuning slop-positive
Tuning Range			+/-0.5	+/-1		ppm	
Reference Voltage	V _{ref}	V _{cc} =5V	4.1	4.2	4.5	V	
Frequency Stability							
Vs. Operating Temperature Range		-40°C to +85°C			+/-100	ppb	Ref 25°C
Vs. Supply Voltage Change		Ref. V _{cc} typ.		+/-2		ppb	
Vs. Acceleration		Worst direction			+/-1	ppb/G	
Aging	Per Day	After 30 days of operation			+/-0.5	ppb	
	Per Year				+/-50	ppm	
Phase Noise							
Phase Noise		@1Hz		-100		dBc/Hz	
		@10Hz		-135			
		@100Hz		-158			
		@1KHz		-165			
		@10KHz		-170			
Environmental							
Operating Temperature Range		-40°C to +85°C					
Storage Temperature Range		-60°C to +90°C					
Humidity		Non-condensing 95%					
Mechanical Shock		Per MIL-STD-202, 30G half sine pulse, 11ms					
Vibration		Per MIL-STD-202, 10G swept sine 10 to 2000Hz					
Soldering Conditions		Hand solder only – not reflow compatible 260°C 10s(on pins)					

Performance Data

