



Features and Benefits

- Very low power consumption (to 0.18W at +25°C)
- DIP14 compatible 8.8mm height packaging
- High frequency stability (+/-50ppb over -40°C to +85°C)
- Very fast warming-up 60s typical
- Very low phase noise
- Low aging (3ppb/day; 0.3ppm/year)

Typical Applications

- UHF Synthesizers
- SATCOM System
- Mobile Test Equipment
- Portable Microwave Applications

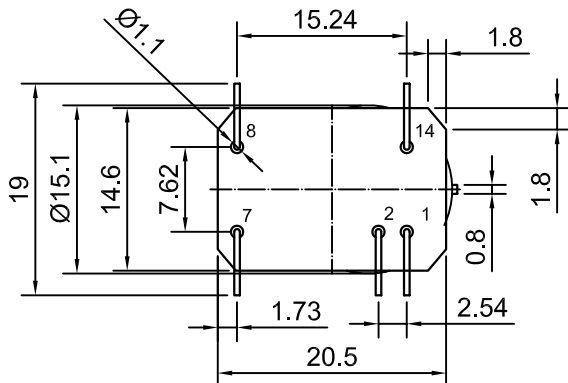
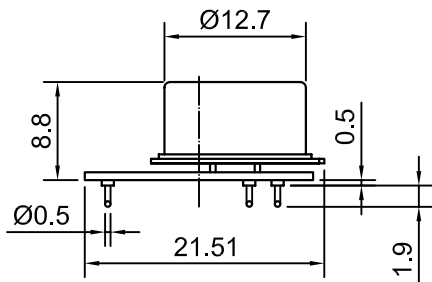
Description

OCXO3308C 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.

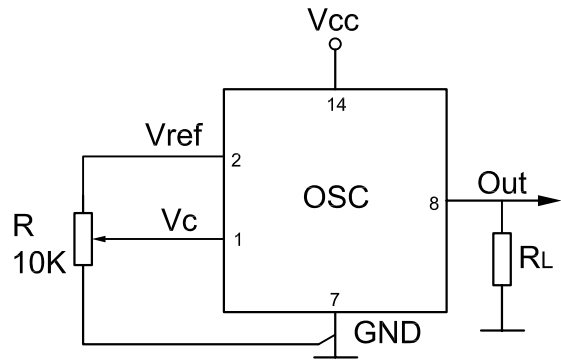
Mechanical Drawing & Pin Connections

Drawing No: MD140076-2

Physical dimensions



Schematic connections



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

Unit in mm
 1mm = 0.0394 inches



Specifications

OCXO Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F ₀			80		MHz	
RF Output							
Sine wave	Level	L	V _{cc} =5V	+5	+8		dBm
	Load	R _L			50		Ohm
	Harmonics					-25	dBm
Power Supply							
Voltage	V _{cc}		3.15	3.3	3.45	V	
Power Consumption				0.18		W	Steady-state@+25°C
				1.0		W	Warm-up state
Warm-up Time					60	s	To Δf/f=1e-7, at 25°C Ref. to frequency after 15min.
Frequency Control							
Control Voltage	V _c	V _{cc} =3.3V	0		2.8	V	Tuning slop-positive
Tuning Range			+/-0.5	+/-1		ppm	
Reference Voltage	V _{ref}	V _{cc} =3.3V	2.7	2.8	2.9	V	
Frequency Stability							
Vs. Operating Temperature Range		-40°C to +85°C			+/-50	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			+/-0.3	ppb	
	Per year				+/-0.03	ppm	
Phase Noise							
Phase Noise		@10Hz		-97		dBc/Hz	
		@100Hz		-127			
		@1KHz		-155			
		@10KHz		-165			
		@100KHz		-168			
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)						