



### Features and Benefits

- Very low power consumption(to 0.18W at +25°C)
- DIP14 compatible 9.0mm height packaging
- High frequency stability(up to +/-100 ppb over -40°C to +85°C)
- Very fast warming-up 60s typical (to 15s optionally)

### Description

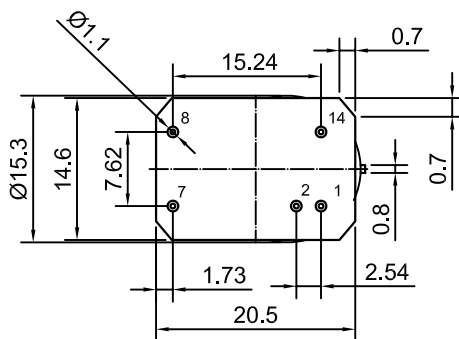
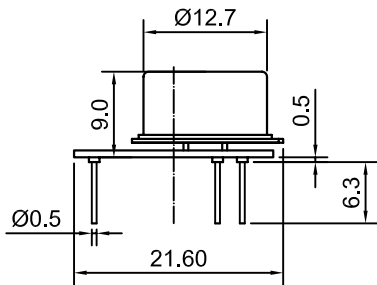
OCXO3307C series offers wide temperature operation from -40°C to +85°C with outstanding frequency stability and low phase noise performance all with very fast warm-up and less than 0.18W power dissipation at 25°C.

### Typical Applications

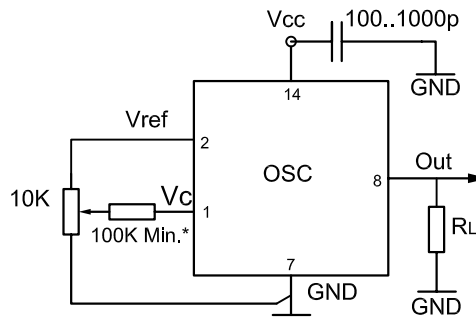
- UHF Synthesizers
- SATCOM System
- Portable Microwave Applications

### Mechanical Drawing & Pin Connections

Drawing No: MD140076-4



### 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**

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F <sub>nom</sub>			100		MHz	
<b>RF Output</b>							
Signal Waveform			Sinewave				
Level			+7			dBm	
Load				50		ohm	
Harmonics Level					-25	dBc	
<b>Power Supply</b>							
Reference Voltage VREF Output			4		4.3	V	
Supply Voltage	V <sub>s</sub>		4.75	5	5.25	V	
Warm-up Time	T <sub>up</sub>	At +25°C to Δf/f=1e-7	30	60		s	ref to freq after 15 min of operation
		At +25°C to Δf/f=1e-8		120		s	
Power Consumption		Steady state, +25°C		180		mW	
		Warm-up			1200	mW	
<b>Frequency Adjustment Range</b>							
Electronic Frequency Control (EFC)		Compliance with 10 years aging	±0.3	±1		ppm	
EFC voltage	V <sub>c</sub>		0		4.3	V	
EFC Slope			positive				
<b>Frequency Stability</b>							
Versus Operating Temperature Range		-40C to +85C			±100	ppb	
Initial Tolerance @+25°C		V <sub>c</sub> @ VREF / 2		±0.1		ppm	
Versus supply voltage	V <sub>s</sub>	Ref Vcc typ		±2		ppb	
G-Sensitivity		Worst direction	±0.3	±1.0		ppb/G	
Aging Per Day		After 30 days of operation		±3		ppb	
Aging 1 <sup>st</sup> Year				±0.3		ppm	
Phase Noise		10Hz		-95		dBc/Hz	
		100Hz		-125		dBc/Hz	
		1kHz		-155		dBc/Hz	
		10kHz		-170		dBc/Hz	
		100kHz		-170		dBc/Hz	
<b>Environmental, Mechanical Conditions</b>							
Operating temperature range	-40°C to 85°C						
Storage temperature range	-60°C to 85°C						
Power voltage	-0.5V to Vcc+20%						
Control voltage	-0.5V to 6V						
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 2000 Hz						
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						