Features and Benefits

Very low power consumption(to 0.15W at +25°C)
DIP14 compatible 8mm height packaging
High frequency stability(up to +/-5ppb over -30°C to +70°C)
Fast warming-up 30s
Very low phase noise(-170dBc/Hz floor at 100MHz)
Low aging(0.5ppb/day; 0.05ppm/year)
Wide frequency range(8 – 120MHz)

Description

OCXO3306C series offers wide frequency range and outstanding frequency stability and low phase noise performance all with very fast warm-up and less than 0.15W power dissipation at 25°C.

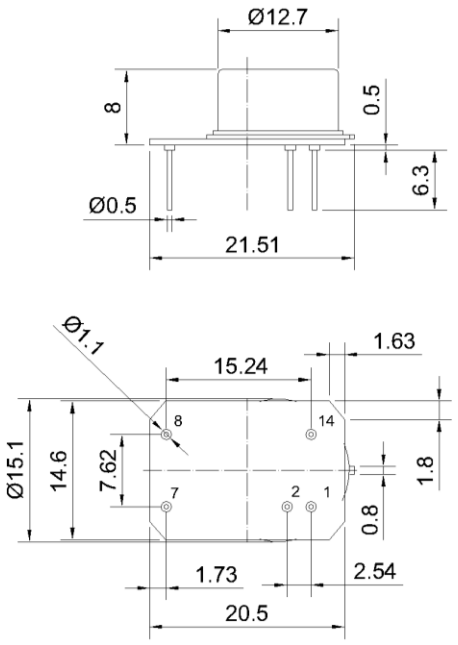
Typical Applications

UHF Synthesizers
SATCOM System
Portable Microwave Applications

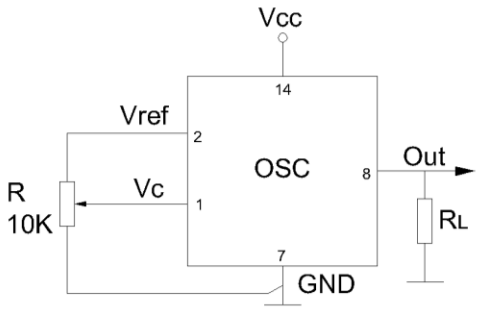
Mechanical Drawing & Pin Connections

Drawing No: MD140075-1

Physical dimensions



Schematic connections



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

Unit : mm

Specifications

HPXO Specification		Sym	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
Frequency Range		F_0		8		120	MHz	
RF Output								
HCMOS	Load			10			Kohm	
						10/5	pF	10MHz/100MHz op. freq.
	H-Level Voltage	V_H		3.8			V	
	L-Level Voltage	V_L				0.4	V	
	Duty Cycle			45		55	%	
	Rise/Fall Time					10/3	ns	10MHz/100MHz op. freq.
Sub-harmonics Level				None				
Power Supply								
Voltage		Vcc		4.75	5.0	5.25	V	3.3V available
Power Consumption			Steady-state@+25°C		0.15		W	
			Warm-up		0.8		W	
Warm-up Time			To△f/f=1e-7, at 25°C			60	s	Ref. to frequency after 15min.
Frequency Control								
Control Voltage		Vc	Vcc=5V	0		4.2	V	Tuning slop-postive
			Vcc=3.3V	0		2.8	V	
Tuning Range				+/-0.5	+/-1		ppm	
Reference Voltage		Vref	Vcc=5V	4.1	4.2	4.5	V	
			Vcc=3.3V	2.7	2.8	2.9	V	
Frequency Stability								
Vs. Operating Temperature Range			-30°C to +70°C		+/-50		ppb	Ref 25°C
Vs. Supply Voltage Change			Ref. Vcc typ.		+/-2		ppb	
Vs. Acceleration			Worst direction			+/-1	ppb/G	
Aging	Per Day		After 30 days of operation			+/-0.5	ppb	
	Per Year					+/-0.05	ppm	
Phase Noise								
Phase Noise			@1Hz		-97/--		dBc/Hz	Utmost phase noise level: 10MHz/100MHz op. freq.
			@10Hz		-127/-95			
			@100Hz		-152/-127			
			@1KHz		-162/-153			
			@10KHz		-166/-165			
			@100KHz		-166/-170			

Environmental	
Operating Temperature Range	-30°C to +70°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	260°C 10s