



Features and Benefits

High stability: $\pm 30\text{ppb}$ over -40 to $+85^\circ\text{C}$
Frequency: 100.8MHz
Low aging: $\pm 3\text{ppb/day}$, $\pm 0.3\text{ppm/year}$
Output: Sinewave
Voltage supply: $+5\text{V}$

Typical Applications

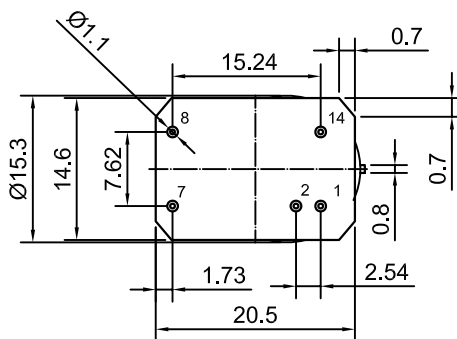
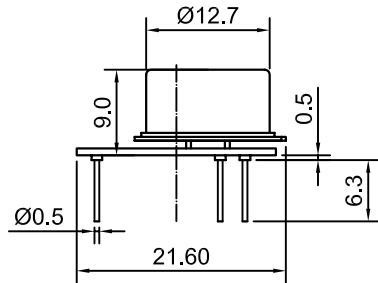
Portable Wireless Communications Mobile
Test equipment
Synthesizers
Battery Powered Application

Description

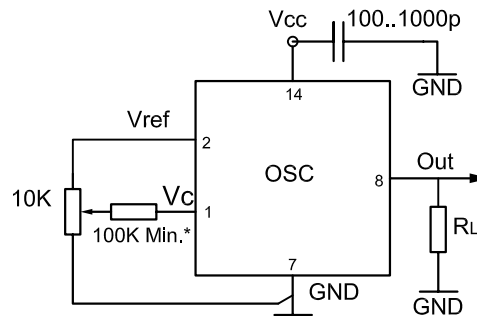
OCXO3307C-100.8MHz-A-V offers high frequency stability, low long-term aging and low phase noise, all in a compact package to suit the different communication needs.

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 _{nom}			100.8		MHz	
RF Output							
Signal Waveform			Sinewave				
Level			7			dBm	
Load				50		ohm	
Harmonics Level					-25	dBc	
Power Supply							
Reference Voltage VREF Output			4		4.3	V	
Supply Voltage	V _s		4.75	5	5.25	V	
Warm-up Time	T _{up}	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	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)		Compliance with 10 years aging	±0.3	±1		ppm	
EFC voltage	V _c		0		4.3	V	
EFC Slope				positive			
Frequency Stability							
Versus Operating Temperature Range		-40C to +85C		±30		ppb	
Initial Tolerance @+25°C		V _c @ VREF / 2		±0.1		ppm	
Versus supply voltage	V _s	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 st Year				±0.3		ppm	
Phase Noise		10Hz		-95		dBc/Hz	
		100Hz		-125		dBc/Hz	
		1kHz		-155		dBc/Hz	
		10kHz		-165		dBc/Hz	
		100kHz		-168		dBc/Hz	
Environmental, Mechanical Conditions							
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						