



Features and Benefits

High stability: $\pm 1\text{E}0\text{ppb}$ over -40 to $+85^\circ\text{C}$
Frequency: 64MHz
Low aging: $\pm 2\text{ppb/day}$, $\pm 0.2\text{ppm/year}$
Output: Sinewave
Voltage supply: +3.3V

Typical Applications

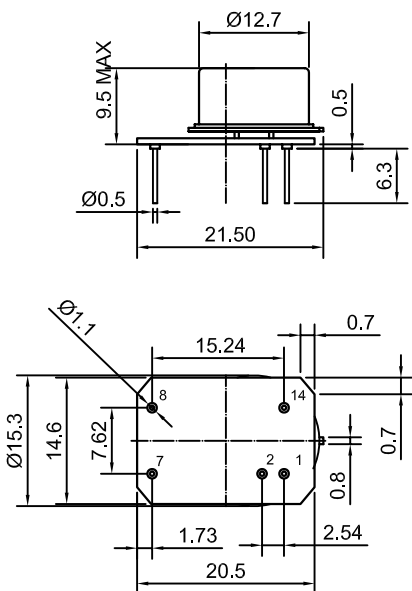
Portable Wireless Communications Mobile
Test equipment
Synthesizers
Battery Powered Application

Description

OCXO3307AW-64MHz-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.

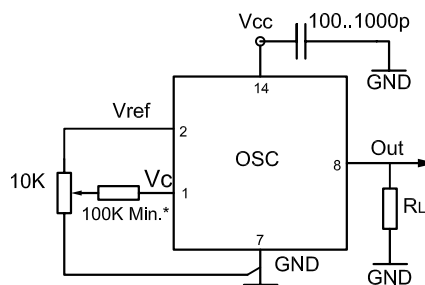
Mechanical Drawing & Pin Connections

Drawing No: MD140076-4



Unit in mm
1mm = 0.0394 inches

Schematic connections



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



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F _{nom}			64		MHz	
RF Output							
Signal Waveform			Sinewave				
Level			4			dBm	
Load				50		ohm	
Harmonics Level					-25	dBc	
Power Supply							
Reference Voltage VREF Output			2.7		3.1	V	
Supply Voltage	V _S		3.15	3.3	3.45	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		700	1200	mW	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)		Compliance with 10 years aging	±0.3	±1		ppm	
EFC voltage	V _e		0		2.8	V	
EFC Slope			positive				
Frequency Stability							
Versus Operating Temperature Range		-40°C to 85°C		±100		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; 0-1kHz vibration BW	±0.3		±1.0	ppb/G	
Retrace		24h work after 24h off			±10	ppb	
Allan deviation		1s	5	20		e-12	
Aging Per Day		After 30 days of operation		±2		ppb	
Aging 1 st Year					±0.2		ppm
Phase noise		10Hz		-100		dBc	
		100Hz		-130		dBc	
		1kHz		-158		dBc	
		10kHz		-165		dBc	
		100kHz		-168		dBc	
Environmental, Mechanical Conditions							
Operating temperature range	-40°C to 85°C						
Storage temperature range	-60°C to 85°C						
Airflow velocity	0.5 m/s maximum						
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						