



### Features and Benefits

- Frequency range: 64MHz
- Supply voltage:3.3V
- Steady current: 50mA Max.
- Output waveform: Sinewave
- Frequency stability vs. operating temperature:  $\pm 100$ ppb
- Aging:  $\pm 2$ ppb/day
- Phase noise@100KHz: -168dBc/Hz
- Operating temperature: -40°C to +85°C
- Package: DIP

### Typical Applications

- Portable Wireless Communications Mobile
- Test equipment
- Synthesizers
- Battery Powered Application

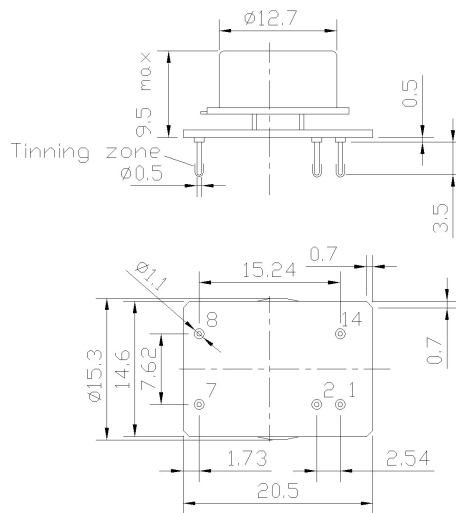
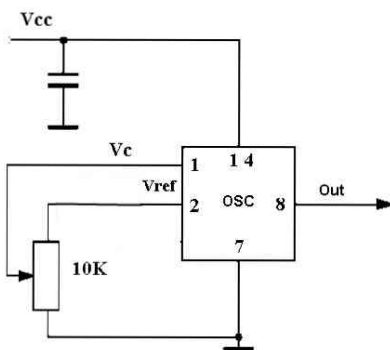
### Description

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

#### Schematic connections





**Specifications**

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F <sub>nom</sub>			64		MHz	
<b>RF Output</b>							
Signal Waveform			Sinewave				
Level			+4			dBm	+
Load			45	50	55	ohm	
Harmonics Level					-25	dBc	
<b>Power Supply</b>							
Reference Voltage VREF Output	V <sub>ref</sub>		2.7	2.8	3.1	V	
Supply Voltage	V <sub>CC</sub>		3.15	3.3	3.45	V	
Warm-up Time	T <sub>up</sub>	At +25°C to Δf/f=1e-7			90	s	Ref. at 15 min.
		At +25°C to Δf/f=1e-8		120		s	
Power Consumption		Steady state, 25°C			50	mA	@25°C, V <sub>cc</sub> =3.3V
		Warm-up			220	mA	
<b>Frequency Adjustment Range</b>							
Control Voltage	V <sub>c</sub>		0		2.8	V	
Input Impedance				11		Kohm	
Preset Control Voltage	V <sub>c0</sub>	Disconnected Vc PIN	1.2	1.4	1.6	V	
Electronic Frequency Control (EFC)	(f <sub>L</sub> - f)/f	V <sub>c</sub> =0V		-1	-0.3	ppm	+
	(f - f)/f	V <sub>c</sub> =V <sub>c0</sub>		0		ppm	
	(f <sub>H</sub> - f)/f	V <sub>c</sub> =V <sub>ref</sub>	0.3	1		ppm	+
EFC Slope			positive				
<b>Frequency Stability</b>							
Versus Operating Temperature Range		-40°C to 85°C			±100	ppb	+
Initial Tolerance @+25°C	(f - f <sub>0</sub> )/f <sub>0</sub>	@25°C, V <sub>c</sub> =V <sub>c0</sub>			±0.15	ppm	+
Versus supply voltage	V <sub>s</sub>	Ref V <sub>cc</sub> typ.			±5	ppb	
G-Sensitivity		Worst axis. 0-1kHz vibration BW			±1.0	ppb/G	
Retrace		24h work after 24h off			±10	ppb	
Allan deviation		1s. 100KHz BW		20		e-12	
Aging Per Day		After 30 days of operation			±2	ppb	
Aging 1 <sup>st</sup> Year					±0.2	ppm	
Phase noise		10Hz		-100		dBc	
		100Hz		-130		dBc	
		1kHz		-155		dBc	
		10kHz		-165		dBc	
		100kHz		-168		dBc	
<b>Environmental, Mechanical Conditions</b>							
Operating temperature range	-40°C to 85°C						
Storage temperature range	-60°C to 85°C						
Airflow velocity	0.5 m/s maximum						
Humidity	Non-condensing 95%						
Mechanical shock	Per MIL-STD-202, 30G, 11ms						
Vibration	Per MIL-STD-202, 10G 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						

Notes: "+" included in test data