



### Features and Benefits

- Frequency range: 100MHz
- Supply voltage: 3.3V
- Steady current: 50mA Max
- Output waveform: Sinewave
- Frequency stability vs. operating temperature:  $\pm 50$ ppb
- Aging:  $\pm 0.3$ ppm per year
- Phase noise@100KHz: -168dBc/Hz
- Operating temperature: -40°C to +85°C
- Size: 20x15x9.5mm

### Typical Applications

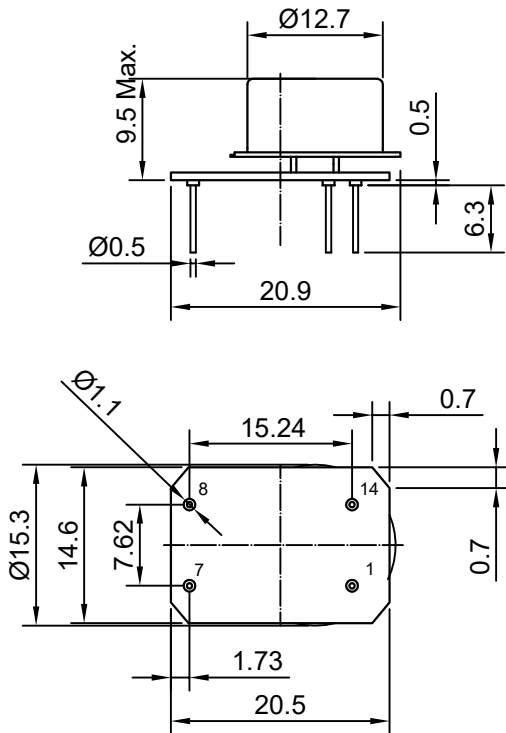
- Portable Wireless Communications Mobile
- Test equipment
- Synthesizers
- Battery Powered Application

### Description

OCXO3307AW-100MHz-688122 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: A8%'\$\$+\*!+



Pin	Signal
1	N.C.
7	GND
8	RF Out
14	Supply Voltage

Unit in mm  
1mm = 0.0394 inches



**Specifications**

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	$f_0$			100		MHz	
<b>RF Output</b>							
Signal Waveform			Sinewave				
Level			+6	+8	+10	dBm	note
Load			45	50	55	ohm	
Harmonics Level					-25	dBc	
<b>Power Supply</b>							
Supply Voltage	$V_{cc}$		3.15	3.3	3.45	V	
Warm-up Time	$T_{up}$	At +25°C to $\Delta f/f=1e-7$	60		90	sec	ref at 15 min
Power Consumption		Steady state, +25°C		35	50	mA	
		Warm-up	140		220	mA	
<b>Frequency Stability</b>							
Versus Operating Temperature Range		Ref +25°C			±50	ppb	note
Initial Tolerance	$(f-f_0)/f_0$	@+25°C, $V_C=V_{C0}$	-0.2		+0.2	ppm	note
Versus supply voltage		Ref $V_{cc}$ typ			±5	ppb	
Versus load		5% change			±5	ppb	
Aging Per Day		After 30 days of operation			±3	ppb	
Aging 1 <sup>st</sup> Year						±0.3	ppm
Phase Noise		10Hz		-95		dBc	
		100Hz		-125		dBc	
		1kHz		-153		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 +90°C						
Air flow velocity	0.5m/s maximum						
Power voltage	-0.5V to +4.0V						
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						

Note: Included in the test data