



Features and Benefits

- Frequency range: 100MHz
- Supply voltage: 5V
- Steady current: 50mA Max
- Output waveform: Sinewave
- Frequency stability vs. operating temperature: ±30ppb
- Aging: ±0.05ppm per year
- Operating temperature: -25°C to +85°C
- Size: 20.5x15.3x9.5mm
- Package type: Through hole



Typical Applications

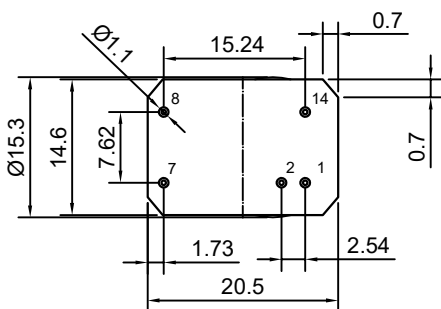
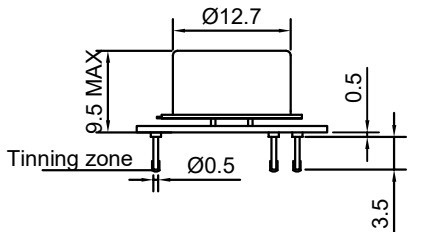
- Portable Wireless Communications Mobile
- Test equipment
- Synthesizers
- Battery Powered Application

Description

OCXO3307CV-100MHz-A 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: M8 & \$\$\$ (!&



Pin	Signal
1	I.C.
2	I.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	
RF Output							
Signal Waveform			Sinewave				
Level			+10	+12		dBm	note
Harmonics					-30	dBc	
Load			45	50	55	ohm	
Spurious level		$f_s=f_0\pm 2\text{MHz}$			-80	dBc	
Power Supply							
Supply Voltage	V_{cc}		4.75	5	5.25	V	
Warm-up current		$V_{cc}=5\text{V}$	120		220	mA	
Continuous current		at +25°C, $V_{cc}=5\text{V}$		35	50	mA	
Frequency warm-up time		to $df/f=1e-7$ at +25°C ref at 15 min		60		sec	
Frequency Stability							
Versus Operating Temperature Range		ref +25°C			± 30	ppb	note
Initial Tolerance @+25°C	$(f-f_0)/f_0$	$V_c=V_{c0}$	-0.1		+0.1	ppm	note
Versus supply voltage		ref V_{cc} typ.			± 5	ppb	
Overall		Initial accuracy + Temp + Load + Supply + Aging 10 years			± 0.5	ppm	
G-sensitivity		worst axis			± 1	ppb/G	
SSB Phase noise (Static)		10Hz		-95	-90	dBc/Hz	
		100Hz		-125	-120		
		1KHz		-155	-150		
		10KHz		-168	-165		
		100KHz		-170	-165		
		1MHz		-172	-167		
Aging Per Day		After 30 days of operation			± 0.5	ppb	
Aging 1 st Year					± 0.05	ppm	
Maximum ratings, environmental, mechanical conditions							
Operating temperature range	-25°C to +85°C						
Storage temperature range	-60°C to +85°C						
Power voltage	-0.5 to 6 V						
Control voltage	-1.0 to 6 V						
Air flow velocity	0.5 m/s maximum						
Humidity	Non-condensing 95%						
Mechanical shock	Per MIL-STD-202, 30G, 11ms						
Vibration	Per MIL-STD-202, 10G swept sine 10 to 2000Hz						
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