



Features and Benefits

Frequency range: 10MHz
Supply voltage: 5V
Steady current: 50mA Max
Output waveform: HCMOS
Frequency stability vs. operating temperature: ± 30 ppb
Aging: ± 0.02 ppm per year
Operating temperature: -25°C to $+85^{\circ}\text{C}$
Size: 20.5x15.3x9.5mm
Package type: Through hole



Typical Applications

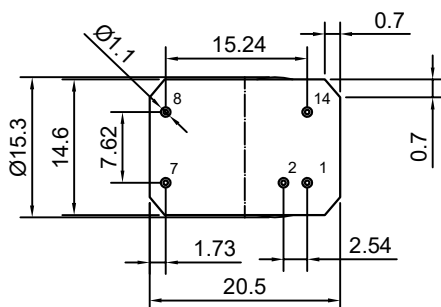
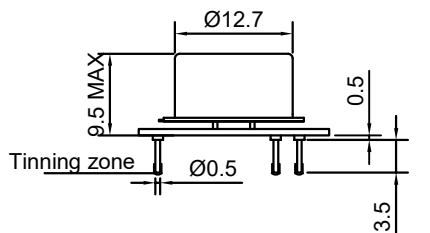
Portable Wireless Communications Mobile
Test equipment
Synthesizers
Battery Powered Application

Description

OCXO3307CV-10MHz-B 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: MD250004-2



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			10		MHz	
RF Output							
Signal Waveform			HCMOS				
High Level			3.8			V	
Low Level					0.4	V	
Load	R _L		10			Kohm	
Load	C _L				15	pF	
Duty Cycle			45	50	55	%	
Power Supply							
Supply Voltage	V _{CC}		4.75	5	5.25	V	
Warm-up current		V _{CC} =5V	120		220	mA	
Continuous current		at +25°C, V _{CC} =5V			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.			±2	ppb	
Overall		Initial accuracy + Temp + Load + Supply + Aging 10 years			±0.5	ppm	
G-sensitivity		worst axis			±1	ppb/G	
SSB Phase noise (Static. Values are for reference only and are subject to change.)		10Hz		-125		dBc/Hz	
		100Hz		-150			
		1KHz		-162			
		10KHz		-165			
		100KHz		-168			
		1MHz		-168			
Aging Per Day		After 30 days of operation			±0.2	ppb	
Aging 1 st Year					±0.02	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						
Humidity	Non-condensing 95%						
Mechanical shock	Per MIL-STD-202, 30G, 11ms						
Vibration	Per MIL-STD-202, 10G 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