



### Features and Benefits

Frequency range: 100MHz  
Supply voltage: 5V  
Steady current: 220mA Max  
Output waveform: Sinewave  
Frequency stability vs. operating temperature: 100ppb  
Aging: 0.3ppm per year  
Phase noise@100KHz: -165dBc/Hz  
Operating temperature: -40°C to +70°C  
Size: 20.5x20.5x10mm

### Typical Applications

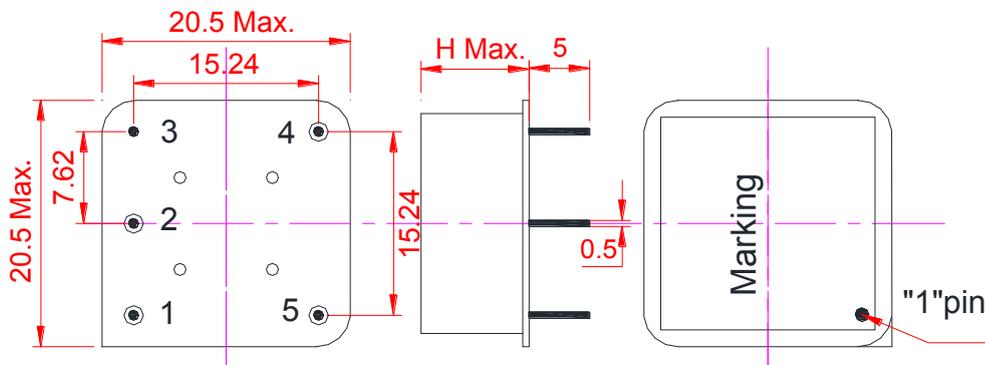
Small Cell, Portable Telecommunication Device  
Test and Instrumentation  
Synthesizer, Digital switch, Reference Timing Circuit  
Packet Timing Protocol ATCOM System

### Description

OCXO2020CF-100MHz-A-V is designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability. These characteristics make it an excellent choice for timing applications.

### Mechanical Drawing & Pin Connections

Drawing No: MD200056-1



Height:		
H	10	mm
Pin:		
1	VC	Control Voltage
2	Vref	Reference
3	GND	Ground
4	OUT	Output
5	VCC	Supply Voltage

Unit in mm  
1mm = 0.0394 inches



**Specifications**

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F <sub>nom</sub>			100		MHz	
<b>RF Output</b>							
Signal Waveform			Sine wave				
Load	R <sub>L</sub>		50			ohm	
Output power			+7			dBm	
Harmonics					-40	dBc	
Spurious					-80	dBc	
<b>Power Supply</b>							
Supply Voltage		±5%		5		V	
Current		Steady state, +25°C			220	mA	
		Warm-up			580	mA	
<b>Frequency Adjustment Range</b>							
Slope			positive				
Control voltage			0		4	V	
Center voltage			2.0±0.2			V	
Linearity					±10	%	
Range			±1.0			ppm	
Input Impedance			100			Kohm	
<b>Frequency Stability</b>							
Versus Operating Temperature Range		-40°C ~ +70°C @ 25°C			±0.1	ppm	
Initial Frequency Accuracy		VC=2.0±0.2V			±0.1	ppm	
Versus supply voltage		±5% change			±0.05	ppm	
Versus load		±10% change			±0.05	ppm	
Aging Per Day		Aging after 30 days of operation			±5.0	ppb	
Aging 1 <sup>st</sup> Year						±0.3	ppm
Phase noise		10Hz			-95	dBc/Hz	
		100Hz			-120	dBc/Hz	
		1kHz			-150	dBc/Hz	
		10kHz			-160	dBc/Hz	
		100kHz			-165	dBc/Hz	
<b>Environmental, Mechanical Conditions</b>							
Operating temperature range		-40°C to +70°C					
Storage temperature range		-50°C to +105°C					