



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

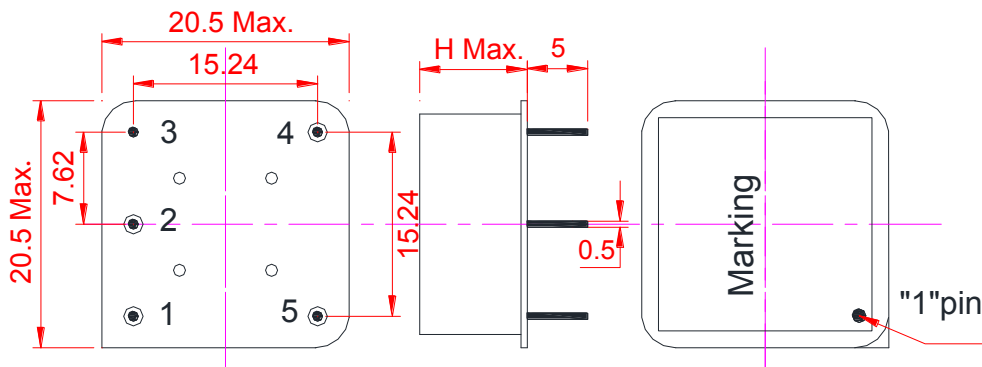
Small Cell, Portable Telecommunication Device
Test and Instrumentation
Synthesizer, Digital switch, Reference Timing Circuit
Packet Timing Protocol ATCOM System

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_{nom}			100		MHz	
RF Output							
Signal Waveform			Sine wave				
Load	R_L		50			ohm	
Output power			+7			dBm	
Harmonics					-40	dBc	
Spurious					-80	dBc	
Power Supply							
Supply Voltage		±5%		5		V	
Current		Steady state, +25°C			220	mA	
		Warm-up			580	mA	
Frequency Adjustment Range							
Slope			positive				
Control voltage			0		4	V	
Center voltage			2.0±0.2			V	
Linearity					±10	%	
Range			±1.0			ppm	
Input Impedance			100			Kohm	
Frequency Stability							
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 st 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	
Environmental, Mechanical Conditions							
Operating temperature range		-40°C to +70°C					
Storage temperature range		-50°C to +105°C					