Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 USA
TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

OCXO2020AX-10MHz-B-V
High Stability 10MHz OCXO

Features and Benefits

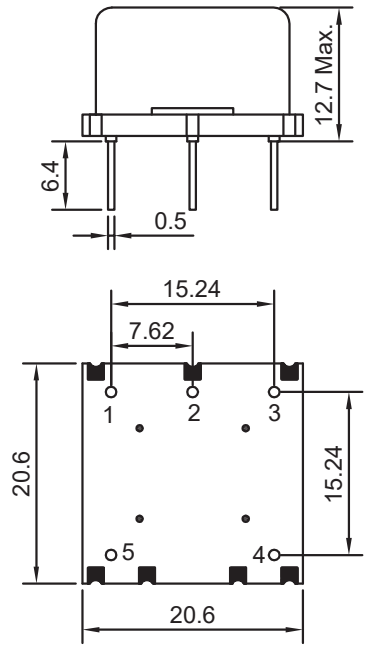
Frequency range: 10MHz
Supply voltage: 5.0V
Steady Power: 1.5W Typ.
Output waveform: Sinewave
Frequency stability vs. operating temperature: ±20ppb
Aging: ±1.0ppb/day
Phase noise@100KHz: -155dBc/Hz
Operating temperature: -20°C to +70°C
Size: 20.6x20.6x12.7mm

Typical Applications

SATCOM System
Cellular Base Stations
Communication System
Time Synchronization

Mechanical Drawing & Pin Connections

Drawing No: MD230016-1



PIN Function

Pin	Function
1	Supply Voltage
2	RF Output
3	GND
4	EFC/N.C.
5	N.C.

Unit in mm
1mm = 0.039 inches

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f_0			10		MHz	
Initial Tolerance		@+25°C±1°C			±100	ppb	
RF Output							
Waveform				Sinewave			
Load	R_L		45	50	55	Ohm	
Output Power				+9.0		dBm	
Spurious					-70	dBc	
Harmonics					-30	dBc	
Frequency Control							
Input Impedance	R_{in}			100		KOhm	
Control Voltage Range	V_c		0	2.5	5.0	V	
Tuning Range			-0.5		+0.5	ppm	
Slope				Positive			
Linearity				10		%	
Power Supply							
Voltage	V_{cc}		4.75	5.0	5.25	V	
Power Consumption		Warm-up			3.5	W	
		Steady-state		1.5		W	
Warm-up Time		To Initial Tolerance			3	min	
Frequency Stability							
Versus Temperature				±20		ppb	
Versus Supply Voltage		±5% change		±2		ppb	
Versus Load		±5% change		±2		ppb	
ADEV (Short term stability)		T=1Sec		5E-11			
Aging – Per day		After 30 days of operation			±1.0	ppb	
Aging – First Year					±100	ppb	
Phase Noise (@+25°C)		10 Hz		-120		dBc/Hz	
		100 Hz		-140			
		1 KHz		-145			
		10 KHz		-155			
		100 KHz		-155			

Environmental Conditions	
Operating Temperature Range	-20°C to +70°C
Storage Temperature range	-55°C to +100 °C
Seal	MIL-STD-202, Method 112, Test condition D
Mechanical Shock	MIL-STD-202, Method 213, Test condition C
Vibration	MIL-STD-202, Method 201
Acceleration Sensitivity	10MHz Output Vibration Profile: 1.0ppb/g $0.001G^2/Hz$ 10Hz to 2KHz