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

OCXO2020AW-LN-10MHz-A-V
High Stability 10MHz OCXO

Features and Benefits

Frequency range: 10MHz
Supply voltage: 5.0V
Steady Power: 1200mW/Max
Output waveform: Sinewave
Frequency stability vs. operating temperature: ±10ppb
Aging: ±0.02ppm per year
Operating temperature: -20°C to +70°C
Size: 20.2x20.2x12.6mm

Typical Applications

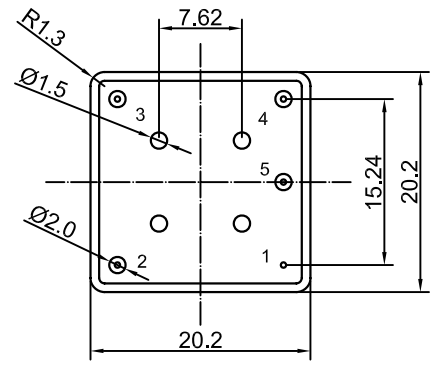
Cellular Base Stations
Instrumentation
Microwave Applications
Stratum 3E clock systems
Radar reference

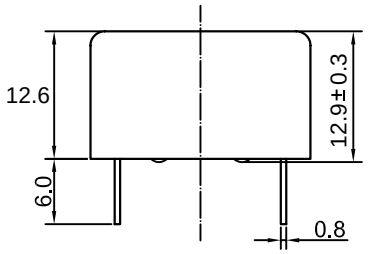
Description

OCXO2020AW-LN-10MHz-A-V offers high frequency stability, low long-term aging, all in a compact package to suit the different communication needs.

Mechanical Drawing & Pin Connections

Drawing No: MD240025-1





Pin Connections

Pin	Signal
1	GND
2	RF Out
3	+V Supply
4	Electrical tuning
5	Reference voltage

Unit in mm
1mm = 0.0394 inches

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F_0			10		MHz	
RF Output							
Signal Waveform				Sine wave			
Level			+7			dBm	
Load				50		ohm	
Harmonics level					-30	dBc	
Sub-Harmonics level				none			
Power Supply							
Supply Voltage	V_{cc}		4.75	5.0	5.25	V	
Warm-up Time	T_{up}	At +25°C to △f/f=1e-7			180	sec	ref to freq. after 15 min of operation
Power Consumption		Steady state, +25°C			1200	mW	
		Warm-up			3500	mW	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)		Compliance with 10 years aging	±0.3			ppm	
EFC voltage	V_c		0		4.3	V	
Slope				positive			
Reference voltage	Vref		4.0		4.3	V	
Frequency Stability							
Versus Operating Temperature Range		ref. 25ºC, air flow 0.5 m/s max.			±10	ppb	
G-sensitivity		Worst direction,0-1KHz vibration BW(for 0-2KHz BW consult DEI)		±1.0		ppb/G	
Aging Per Day		After 30 days of operation			0.2	ppb	
Aging 1st Year					0.02	ppm	
Phase Noise		@10Hz		-125		dBc/Hz	
		@100Hz		-145			
		@1KHz		-163			
		@10KHz		-168			
		@100KHz		-170			
Environmental Conditions							
Operating temperature range	-20°C to +70°C						
Storage temperature range	-60°C to +85°C						
Air flow velocity	0.5 m/s maximum						
Humidity	Hermetically sealed						
Mechanical shock	Per MIL-STD-202,30G half sine pulse,11mS						
Vibration	Per MIL-STD-202, 10G sweep sine 0 to 2000 Hz						
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						