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

VCXO914BM-122.88MHz-A-V
Very Low Noise and Low g-Sensitivity VCXO

Features and Benefits

Frequency range: 122.88MHz
Supply voltage: 3.3V
Steady current: 30mA Max
Output waveform: CMOS
Frequency stability vs. Overall: +-25ppm
Pulling range: +-25ppm
Phase noise@100KHz: -167dBc/Hz
Operating temperature: -20°C to +70°C
Size: 13.9x9.1x3.6mm

Typical Applications

Instrument
Microwave Communication
Test & Measurement
Telecom Systems-
Satellite Communication

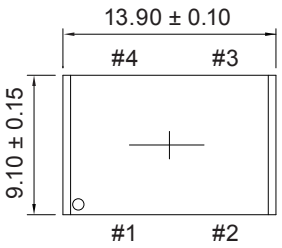
Description

VCXO914BM-122.88MHz-A-V offers low phase noise, all in a compact package to suit the different communication needs.

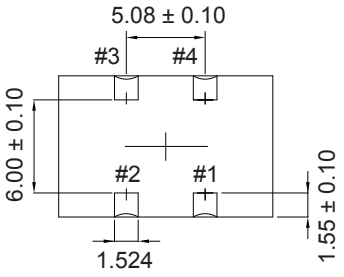
Mechanical Drawing & Pin Connections

Drawing No: **MD210012-1**

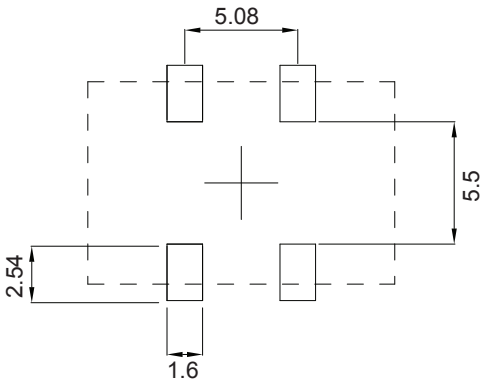
[TOP VIEW]



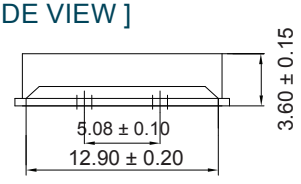
[BOTTOM VIEW]



Solder PAD Layout



[SIDE VIEW]



Pin#	Function
1	Vcon
2	GND
3	Output
4	VDD

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_{nom}			122.88		MHz	
RF Output							
Signal Waveform				CMOS			
Rise/Fall time		(20%V_{DD} ~ 80%V_{DD})			3	ns	
Duty Cycle			45		55	%	
Load				15		pF	
Power Supply							
Supply Voltage	V_{dd}		3.135	3.3	3.465	V	
Current Consumption		At maximum voltage			30	mA	
Frequency Adjustment Range							
Absolute Pulling Range (APR)			±25			ppm	
Control voltage			0	1.65	3.3	V	
VC Input Impedance			100			Mohm	
Slope				Positive			
Linearity				+-10%			
Frequency Stability							
Frequency stability		Frequency stability includes frequency tolerance@25 and frequency stability vs. operating temperature range and voltage variance and 10 years aging.	-25		+25	ppm	
G-Sensitivity				1.5		ppb/G	
Modulation Bandwidth (BW)			1			KHz	
SSB Phase noise		10Hz		-75		dBc	
		100Hz		-110		dBc	
		1kHz		-137		dBc	
		10KHz		-158		dBc	
		100KHz		-167		dBc	
		1MHz		-170		dBc	
Environmental,Mechanical Conditions							
Operating temperature range	-20°C to +70°C						
Storage temperature range	-45°C to +90°C						
Vibration Test	DIN EN 60068-2-6; 10~55Hz, 0.75mm Peak; 55~2000Hz, 10g Peak. 10 Cycles; 3 axis; 1Oct./min.						
Thermal Shock	DIN EN 60068-2-14; 30 min. @each temperature 10 cycles, Transfer<1min.; -40°C +/-3°C ; 85°C +/-3°C						
Mechanical Shock	DIN EN 60068-2-27; 6 shocks per axis, 100g; 6ms both directions						