



Features and Benefits

- Frequency range: 38.4MHz
- Supply voltage: 3.3V
- Steady current: 35mA /Max
- Output waveform: CMOS
- Frequency stability vs. operating temperature: ±0.28PPM
- Aging: ±1.0PPM per year
- Phase noise@100KHz: -155dBc/Hz
- Operating temperature: -40°C to +85°C
- Size: 14.5x13.2x6.5mm

Typical Applications

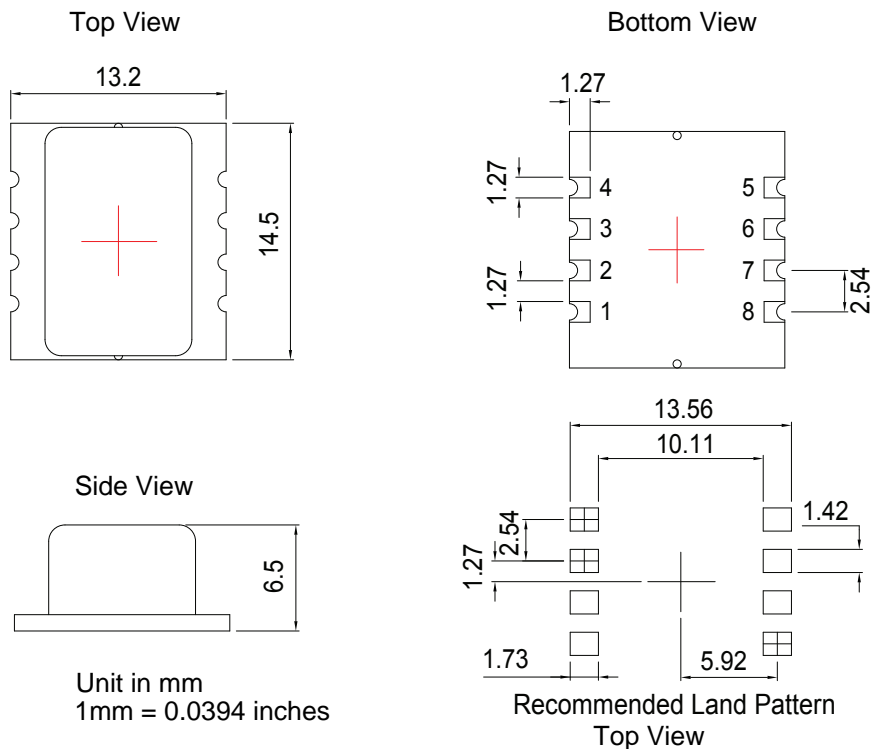
- Time Synchronization
- Microwave Communication
- Test & Measurement
- Telecom Systems
- Satellite Communication

Description

TCXO1314BM-LN-38.4MHz-A-V is the 38.4MHz low phase noise TCXO. The frequency stability can less than ±0.28PPM from -40°C to +85°C operating temperature. It can be widely used in the portable communication device.

Mechanical Drawing & Pin Connections

Drawing No: MD2200%-1



Pin#	Function
1	Vcon (Vc)
2	GND
3	GND
4	GND
5	GND
6	Output
7	GND
8	Vcc



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Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F _{nom}			38.4		MHz	
RF Output							
Signal Waveform			CMOS				Sinewave is available
Load	R _L			15		pF	
H-Level Voltage	V _H		2.97			V	
L- Level Voltage	V _L				0.33	V	
Duty Cycle			45		55	%	
Rise and fall time					4	nS	
Power Supply							
Supply Voltage	V _{cc}		2.97	3.3	3.63	V	
Current		At maximum supply voltage			35	mA	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)			±5			ppm	
EFC voltage	V _c		0		3.3	V	Positive
Linearity					10	%	
Input Impedance			10			kohm	
Modulation BW		3dB bandwidth		6		Hz	
Frequency Stability							
Versus Operating Temperature Range			-0.28		+0.28	ppm	
Initial Tolerance		V _c input floating		±1.0		ppm	
Versus supply voltage			-0.1		+0.1	ppm/V	
Aging 1 st Year			-1.0		+1.0	ppm	
Aging 10 Years			-3.0		+3.0	ppm	
SSB Phase noise		10Hz			-87	dBc	
		100Hz			-117	dBc	
		1kHz			-141	dBc	
		10kHz			-150	dBc	
		100kHz			-155	dBc	
		1MHz			-157	dBc	
Environmental, Mechanical Conditions							
Operating temperature range	-40°C to +85°C						
Storage temperature range	-40°C to +105°C						
Thermal Shock	MIL-STD-883 1010 Condition B, JESD22-A104 Condition B. -55°C, +125°C ; soak time is 10 mins, with total 200 cycles						
Vibration Test	MIL-STD-883 2007 Condition A, JESD22-B103 Condition 1. 10~2000Hz, 1.52mm, 20G, each axis for 4 hrs						
Mechanical Shock	MIL-STD-883 2002 Condition B, JESD22-B104 Condition B. 1500G, half-sine, 0.5ms, each axis for 3 times.						