



Features and Benefits

Frequency range: 10MHz

Supply voltage: 3.3V

Steady current: 8.0mA Max

Output waveform: CMOS

Frequency stability vs. operating temperature: ± 0.5 PPM

Phase noise@10KHz: -154dBc/Hz

Operating temperature: -40°C to +85°C

Size: 7.0x5.3x1.5mm

Typical Applications

Guidance

Avionics

Precision GNSS/Positioning

Real Time Kinematic (RTK)

Description

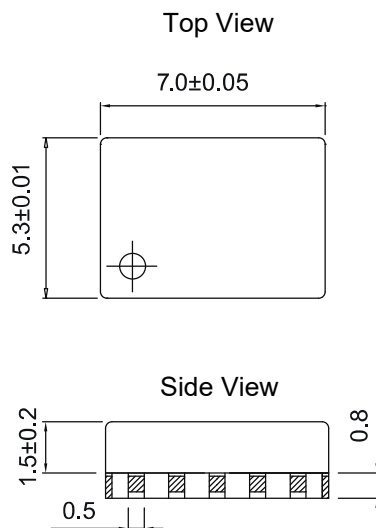
TCXO7500BM-LG-10MHz-A-V is the Ultra-Low G Sensitivity TCXO.

The frequency stability can be less than ± 0.5 PPM.

It can be widely used in the portable communication devise.

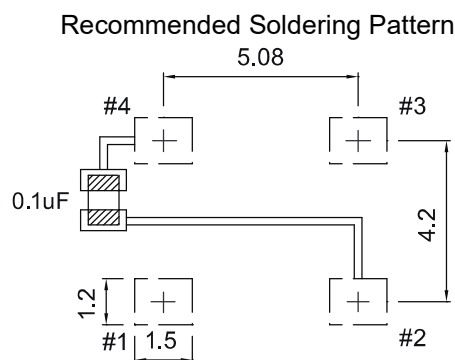
Mechanical Drawing & Pin Connections

Drawing No: MD220031-1



Pin#	Function
1	Vcon:VC-TCXO NC/GND:TCXO
2	GND
3	OUTPUT
4	V _{cc}

Unit in mm
1mm = 0.0394 inches



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1uF as close to the part as possible between V_{cc} and GND PAD



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f ₀			10		MHz	
RF Output							
Output Waveform			CMOS				
Load				15		pF	
Output Level High			0.9*V _{cc}			V	
Output Level Low					0.1*V _{cc}	V	
Duty Cycle			45		55	%	
Start Time					5	ms	
Power Supply							
Voltage	V _{cc}	±5%		3.3		V	
Current					8.0	mA	
Frequency Stability							
Versus Temperature					±0.5	ppm	
Versus Supply Voltage		±10%			±0.1	ppm	
Versus Load		±10%			±0.05	ppm	
Aging @ first year					±1.0	ppm	
Frequency Tolerance		Frequency at 25°C, 1 hour after reflow			±2.0	ppm	
G Sensitivity		Gamma Vector, 3-axes			0.3	ppb/g	
Phase Noise		@10Hz		-107		dBc/Hz	
		@100Hz		-135			
		@1KHz		-149			
		@10KHz		-154			
Environmental Conditions							
Operating temperature range		-40°C to +85°C					
Storage temperature range		-55°C to +125 °C					