



## Features and Benefits

Frequency range: 10-52MHz  
Supply voltage: 1.8V/2.5V/3.3V  
Steady current: 1.5-2.0mA Max  
Output waveform: Clipped Sinewave  
Frequency stability vs. operating temperature:  $\pm 2.0$ ppm  
Aging:  $\pm 1.0$ ppm per year  
Phase noise@1KHz: -135dBc/Hz  
Operating temperature: -30°C to +85°C  
Size: 2.5x2.0x0.8mm

## Typical Applications

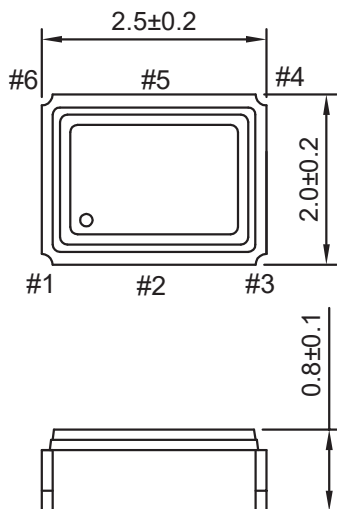
Indoor Positioning System

## Description

TCXO2520AT offers wide temperature operation from -30°C to +85°C with outstanding frequency stability and low phase noise performance.

## Mechanical Drawing & Pin Connections

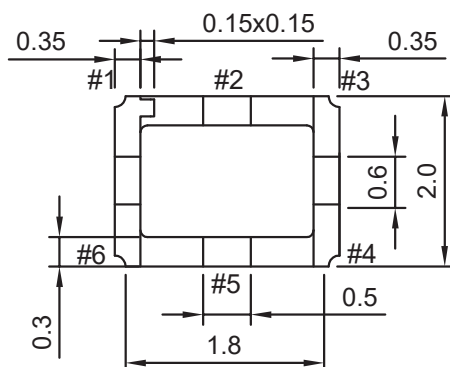
Drawing No: MD220043-1



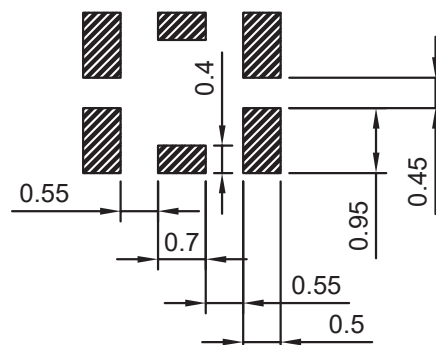
PIN	Function
#1	TCXO: GND VC-TCXO: Vcontrol
#2	N.C. or GND
#3	GND
#4	Output
#5	N.C. or GND
#6	Vcc

Unit in mm

1mm = 0.0394 inches



### Soldering Pattern





## Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F <sub>nom</sub>		10		52	MHz	
RF Output							
Signal Waveform			Clipped sinewave				
Output Level			0.8			Vp-p	
Output Load			10Kohm//10pF				
Power Supply							
Supply Voltage	Vcc		1.8, 2.5, 3.3			V	
Current Consumption		10MHz-29.99MHz			1.5	mA	
		30MHz-39.99MHz			1.7	mA	
		40MHz-52.00MHz			2.0	mA	
Frequency Adjustment Range							
Absolute Pulling Range (APR)		Vcc=1.8V	±8		±13	ppm	
		Vcc=2.5V or 3.3V	±9		±15	ppm	
Control Voltage	V <sub>c</sub>	Vcc=1.8V	0.1	0.9	1.7	V	
		Vcc=2.5V or 3.3V	0.5Vcc ± 1V			V	
Frequency Stability							
Frequency stability vs. temperature					±2.0	ppm	
Frequency stability vs. voltage change					±0.2	ppm	
Frequency stability vs. load change					±0.2	ppm	
Frequency Tolerance		at 25°C			±1.5	ppm	
Aging 1 <sup>st</sup> Year					±1.0	ppm	
Phase Noise		1kHz		-135		dBc/Hz	
Environmental, Mechanical Conditions							
Operating temperature range	-30°C to +85°C						
Storage temperature range	-40°C to +85°C						