



## Features and Benefits

Frequency range: 10.23MHz  
Supply voltage: 3.3V  
Steady current: 26mA Typ.  
Output waveform: CMOS  
Frequency stability vs. operating temperature:  $\pm 1.5$ ppm  
Aging:  $\pm 2.0$ ppm first year  
Operating temperature:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$   
Size: 7.0x5.0x2.5mm

## Typical Applications

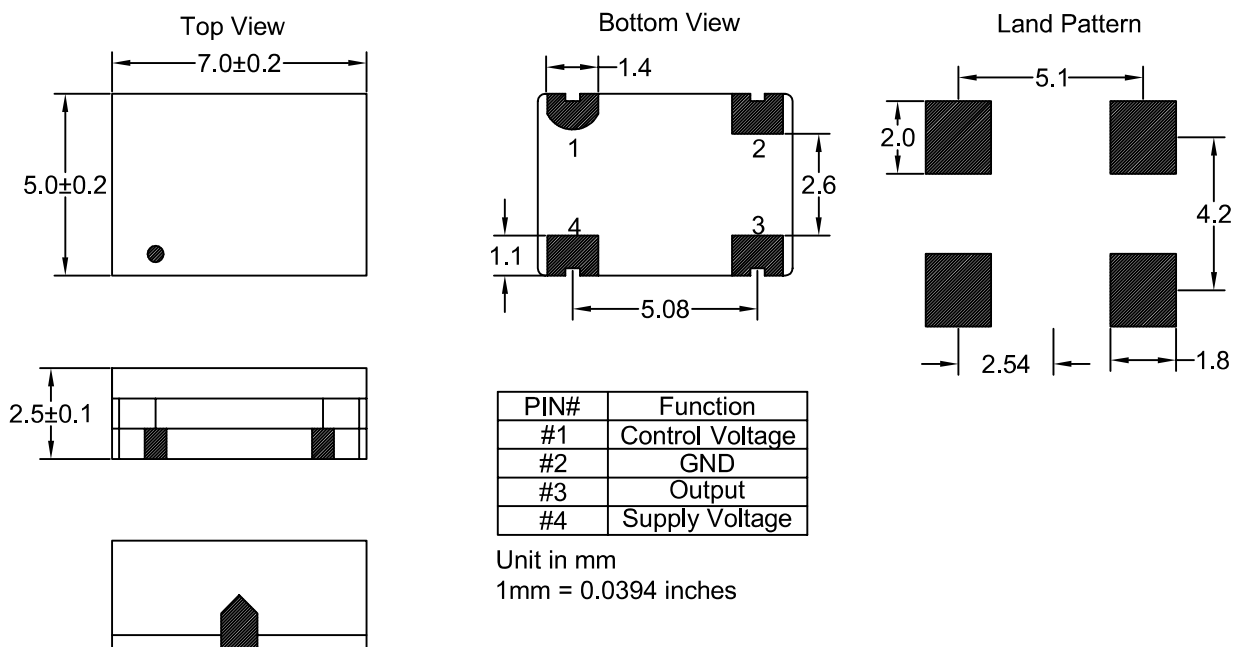
Frequency reference for real time clocks (RTCs)  
Portable instruments  
Timing synchronization for networks, servers, hubs, routers and switches  
Smart metering, data loggers  
GPS receivers. Telematics

## Description

TCXO7500BL-10.23MHz-A-V is the 10.23MHz CMOS output TCXO.  
The frequency stability can less than  $\pm 1.5$ PPM from  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  operating temperature.  
It can be widely used in the portable communication device.

## Mechanical Drawing & Pin Connections

Drawing No: MD220011-2





## Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	$F_{nom}$			10.23		MHz	
<b>RF Output</b>							
Signal Waveform			CMOS				
Load				15		pF	
H-Level Voltage	$V_H$		90%Vcc				
L- Level Voltage	$V_L$				10%Vcc		
Rise and fall time		10% $\leftrightarrow$ 90% waveform		1.5	3.0	nS	
Duty Cycle		$\pm 5\%$		50		%	
Startup time					5	ms	
<b>Power Supply</b>							
Supply Voltage	$V_{cc}$	$\pm 5\%$		3.3		V	
Current consumption				26		mA	
Current with output disabled				18		mA	
<b>Frequency Stability</b>							
Versus Operating Temperature Range		-40°C to +85°C		$\pm 1.5$		ppm	Ref to +25°C
Versus supply voltage		$\pm 5\%$ change			$\pm 0.2$	ppm	
Versus load		$\pm 10\%$ change			$\pm 0.2$	ppm	
Aging 1 <sup>st</sup> Year					$\pm 2.0$	ppm	
Initial calibration tolerance		+25°C $\pm 2^\circ$ C			2.0	ppm	At the shipment
<b>Control Voltage Function on PAD 1</b>							
Control Voltage Range			0.5	1.5	2.5	V	
Frequency Pulling Range			$\pm 8$			ppm	
<b>Environmental specifications</b>							
Operation temperate			-40°C to +85°C				
Storage temperature			-55°C to +150°C				