



## Features and Benefits

Frequency range: 40MHz  
Supply voltage: 3.3V  
Steady current: 8mA Max  
Output waveform: CMOS  
Frequency stability vs. operating temperature:  $\pm 0.5$ ppm  
Aging:  $\pm 1$ ppm per year  
Phase noise@1KHz: -125dBc/Hz  
Operating temperature: -30°C to +85°C  
Size: 7.1x5.0x2.2mm

## Typical Applications

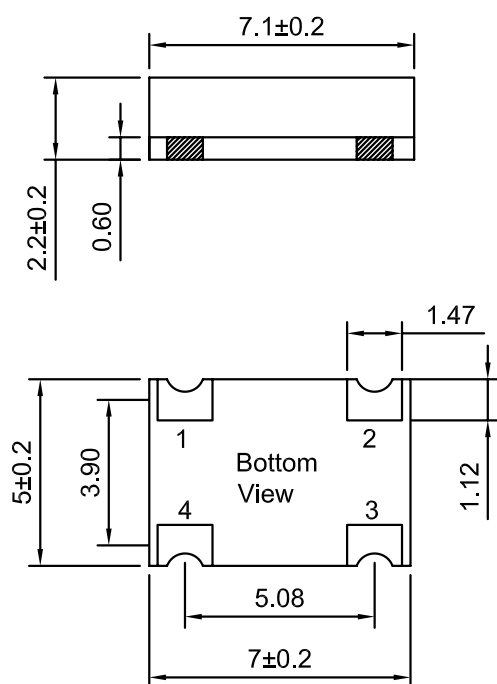
UHF Synthesizers  
SATCOM System  
Portable Microwave Applications

## Description

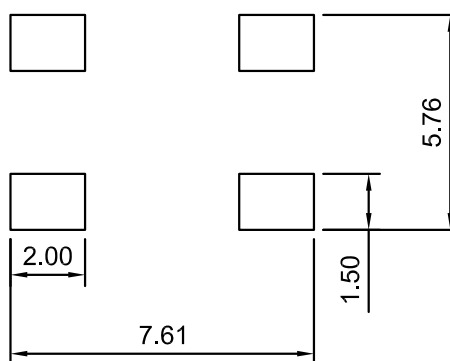
TCXO7500CL-40MHz-A-V offers wide temperature operation from -30°C to +85°C with outstanding frequency stability and low phase noise performance.

## Mechanical Drawing & Pin Connections

Drawing No: MD210019-1



### Recommended Land Pattern



PIN	FUNCTION
#1	Control voltage
#2	GND
#3	RF output
#4	Supply voltage

Unit in mm  
1mm = 0.0394 inches



# Dynamic Engineers Inc.

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**TCXO7500CL-40MHz-A-V**

Part Number: TCXO7500CL-40MHz-A-V

## Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	$F_{nom}$			40		MHz	
Output			CMOS				
Output Level				$V_{OH} \geq 2.4$ $V_{OL} \leq 0.4$		V	
Output load				15 pF			
Duty Cycle		@25°C ± 5 °C	45		55	%	
Rise/Fall		@25°C ± 5 °C		6		ns	
<b>Power Supply</b>							
Voltage	$V_{cc}$			3.30		V	
Current Consumption		@25°C ± 5 °C, Still Air			8	mA	
Control Voltage Range			0.5		2.5	V	
Tuning Frequency Range			±5.0			ppm	
<b>Frequency Stability</b>							
Vs temperature		-30°C to +85°C			±0.5	ppm	
Vs supply voltage changes		±5%, @25°C ± 5 °C			±0.2	ppm	
Vs load changes		±5%, @25°C ± 5 °C			±0.2	ppm	
Initial Tolerance		At shipment, nominal EFC			±1.0	ppm	
Short term stability		1sec		1.5E-10			
Aging per day		After 30 days of operation			±0.01	ppm	
First Year Aging					±1.0	ppm	
Phase noise		1 KHz			-125	dBc/Hz	@25°C ± 5 °C
<b>Environmental Conditions</b>							
Operating temperature range		-30°C to +85°C					
Storage temperature range		-55°C to +125°C; Off working status					