



## Features and Benefits

Frequency range: 10MHz  
Supply voltage: 3.3V  
Steady current: 45mA Max  
Output waveform: Sinewave  
Frequency stability vs. operating temperature:  $\pm 0.28$ ppm  
Aging:  $\pm 1$ ppm per year  
Phase noise@1KHz: -145dBc/Hz  
Operating temperature: -40°C to +85°C  
Size: 14.6x9.4x6.0mm

## Typical Applications

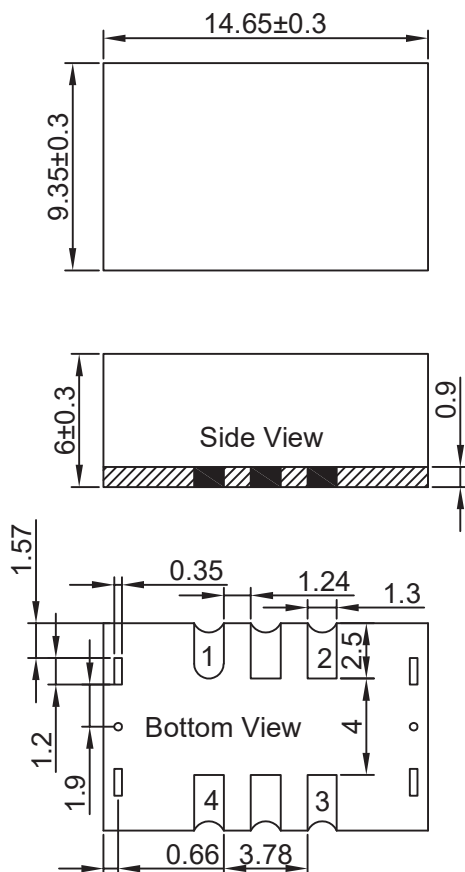
UHF Synthesizers  
SATCOM System  
Portable Microwave Applications

## Description

TCXO1490CL-10MHz-A-V offers wide temperature operation from -40°C to +85°C with outstanding frequency stability and low phase noise performance.

## Mechanical Drawing & Pin Connections

Drawing No: MD230039-1

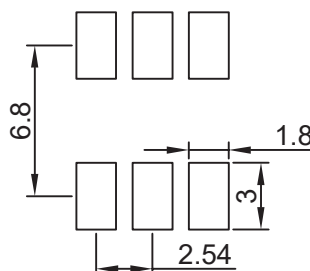


### Pin Connections

#1	Control Voltage
#2	GND
#3	Output
#4	Vcc

Unit in mm  
1mm = 0.0394 inches

### Recommended Land Pattern





## Dynamic Engineers Inc.

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### TCXO1490CL-10MHz-A-V

High precision, High reliable 10MHz TCXO

## Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F <sub>nom</sub>			10		MHz	
Output			Sinewave				
Output Level		@25°C ± 5 °C	+7			dBm	
Output load			50			Ohm	
Harmonics		@25°C ± 5 °C			-30	dBc	
Spurious		@25°C ± 5 °C			-70	dBc	
Power Supply							
Voltage	V <sub>cc</sub>			3.3		V	
Current Consumption					45	mA	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)			±5.0			ppm	
EFC voltage	V <sub>c</sub>		0.5	1.5	2.5	V	
Frequency Stability							
Vs temperature		-40°C to +85°C			±0.28	ppm	
Vs supply voltage changes		±5%, @25°C ± 5 °C			±0.1	ppm	
Vs load changes		±5%, @25°C ± 5 °C			±0.2	ppm	
Initial Tolerance		At shipment, nominal EFC @25°C			±1.0	ppm	
First Year Aging		After 30 days of operation			±1.0	ppm	
Phase noise		10Hz			-75	dBc/Hz	@25°C ± 5 °C
		100Hz			-130	dBc/Hz	
		1KHz			-145	dBc/Hz	
		10KHz			-150	dBc/Hz	
		100KHz			-155	dBc/Hz	
Environmental Conditions							
Operating temperature range	-40°C to +85°C						
Storage temperature range	-55°C to +105°C; Off working status						