



### Features and Benefits

- 50MHz Frequency
- 3.3V Supply voltage
- CMOS Output waveform
- ±1.5ppm Stability Vs -40 °C to +85 °C
- 7x5x2.5mm Size

### Typical Applications

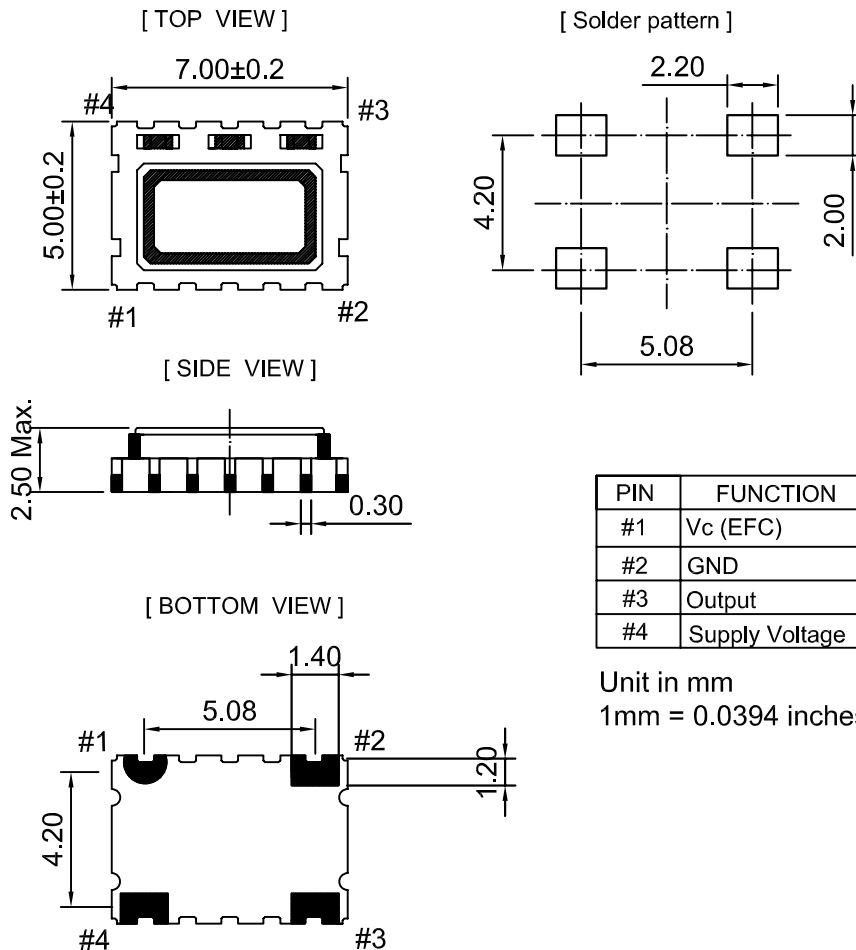
- SATCOM System
- Cellular Base Stations
- Radar Applications

### Description

TCXO7500R-50MHz-A-V are designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability. These characteristics make it an excellent choice for timing applications.

### Mechanical Drawing & Pin Connections

Drawing No: MD180030-1





## Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F <sub>nom</sub>			50		MHz	
<b>RF Output</b>							
Signal Waveform			CMOS				
Load	R <sub>L</sub>		15pf				
H-Level Voltage	V <sub>H</sub>		2.97			V	
L- Level Voltage	V <sub>L</sub>				0.33	V	
Output Format			DC block , AC coupled				
Duty Cycle				50		%	
Rise and fall time					6	nS	
Start up time					10	nS	
<b>Power Supply</b>							
Supply Voltage	V <sub>cc</sub>	±5%		3.3		V	
Current					18	mA	
Control voltage			0.5	1.5	2.5	V	
Frequency Deviation Range			±5.0			ppm	
Linearity					10	%	
Control voltage Input Impedance			1.0			MΩ	
Modulation Bandwidth		Measured at -3 dB , Vcontrol = +1.5 VDC	3.0			KHz	
<b>Frequency Stability</b>							
Versus Operating Temperature Range		-40 °C to +85 °C			±1.5	ppm	
Nominal Frequency Tolerance		25 °C ±2 °C			±2.0	ppm	
Versus supply voltage		±5% change			±0.3	ppm	
Versus load voltage		±10% change			±0.3	ppm	
Versus Reflow		1 reflow and measured 24 hours afterwards			±1.0	ppm	
Aging 1 <sup>st</sup> Year					±1.0	ppm	25 °C
Phase Noise(@10MHz)		10Hz		-63		dBc/Hz	
		100Hz		-105		dBc/Hz	
		1KHz		-120		dBc/Hz	
		10KHz		-130		dBc/Hz	
		100KHz		-126		dBc/Hz	
		1MHz		-118		dBc/Hz	
<b>Environmental, Mechanical Conditions</b>							
Operating temperature range		-40 °C to +85 °C					
Storage temperature range		-50 °C to +100 °C					