



Features and Benefits

Frequency range: 25MHz

Supply voltage: 3.3V

Steady current: 5mA /Max

Output waveform: CMOS

Frequency stability vs. operating temperature: ± 0.28 PPM

Aging: ± 1.0 PPM per year

Operating temperature: -40°C to $+85^{\circ}\text{C}$

Size: 7x5x1.75mm

Typical Applications

UHF Synthesizers

SATCOM System

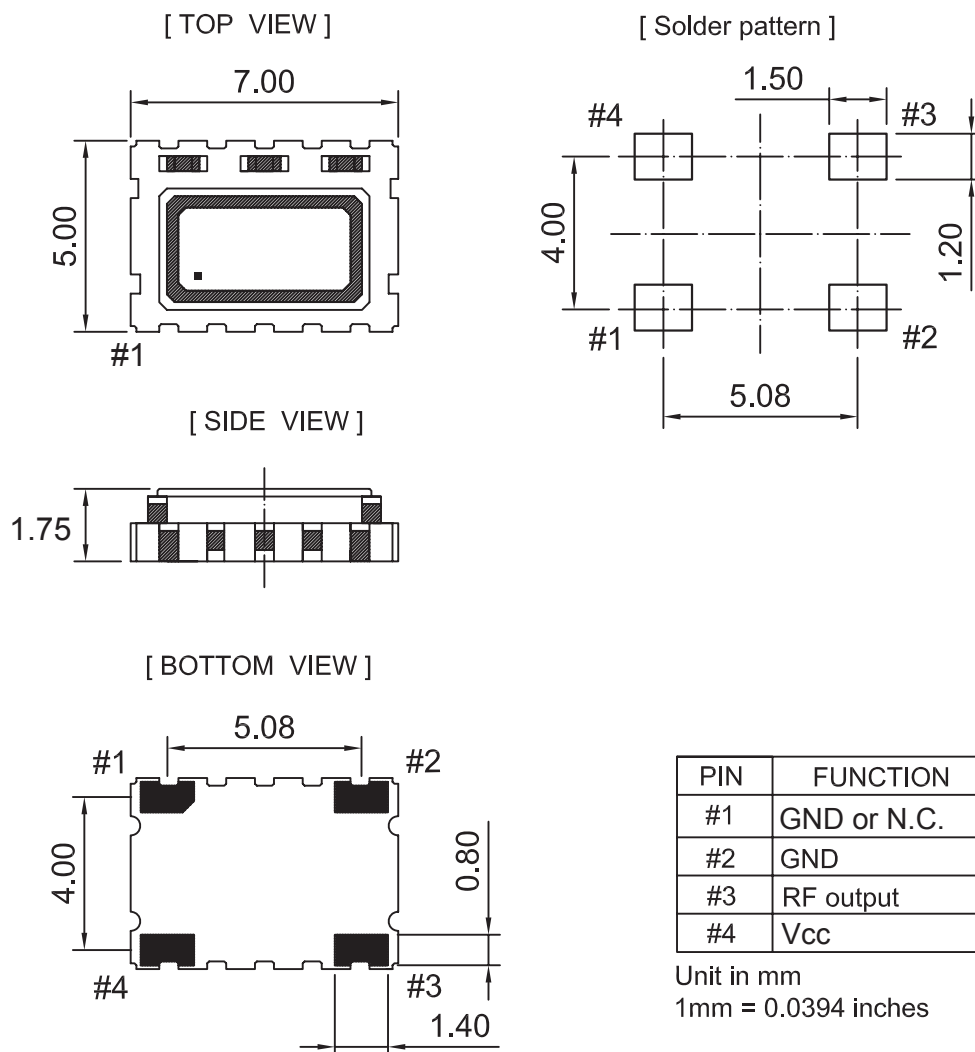
Portable Microwave Applications

Description

TCXO7500BT-STR3-25MHz-A offers wide temperature operation from -40°C to $+85^{\circ}\text{C}$ with outstanding frequency stability performance.

Mechanical Drawing & Pin Connections

Drawing No: MD150004-7





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F_{nom}			25		MHz	
Output			CMOS				
Output Level			$V_{OH} > 0.9 \times V_{CC}$ $V_{OL} < 0.1 \times V_{CC}$				
Output load					15	pF	
Power Supply							
Voltage	V_{CC}	$\pm 5\%$		3.3		V	
Current Consumption					5	mA	
Frequency Stability							
Overall		Including, frequency stability vs. temperature, tolerance @+25°C, aging 20 years, supply & load variation			± 4.6	ppm	
Versus temperature		-40°C to +85°C, ref to $(f_{max}+f_{min})/2$			± 0.28	ppm	
Holdover stability		Constant temperature, supply and load change of $\pm 5\%$ and aging over 24 hours			± 0.37	ppm	
Tolerance at +25°C			0		+1.0	ppm	
First Year Aging		@+40°C			± 1.0	ppm	
Phase noise (25MHz)		10Hz		-90		dBc/Hz	
		100Hz		-125		dBc/Hz	
		1KHz		-140		dBc/Hz	
		10KHz		-150		dBc/Hz	
		100KHz		-154		dBc/Hz	
Environmental Conditions							
Operating temperature range		-40°C to +85°C					
Storage temperature range		-55°C to +105°C					
Reflow Profiles		$\leq 260^\circ\text{C}$ over 10 sec. Max. as per IPC/JEDEC J-STD-020C					
Moisture sensitivity		Level 1(unlimited)					