Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 USA
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TCXO7501BL-30.72MHz-A
30.72MHz CMOS TCXO

Features and Benefits

Frequency range: 30.72MHz
Supply voltage: 3.3V
Steady current: 24mA Typ.
Output waveform: CMOS
Frequency stability vs. operating temperature: ±2.5ppm
Aging: ±2.0ppm first year
Phase noise@10KHz: -126dBc
Operating temperature: -40°C to +85°C
Size: 7.0x5.0x2.5mm

Typical Applications

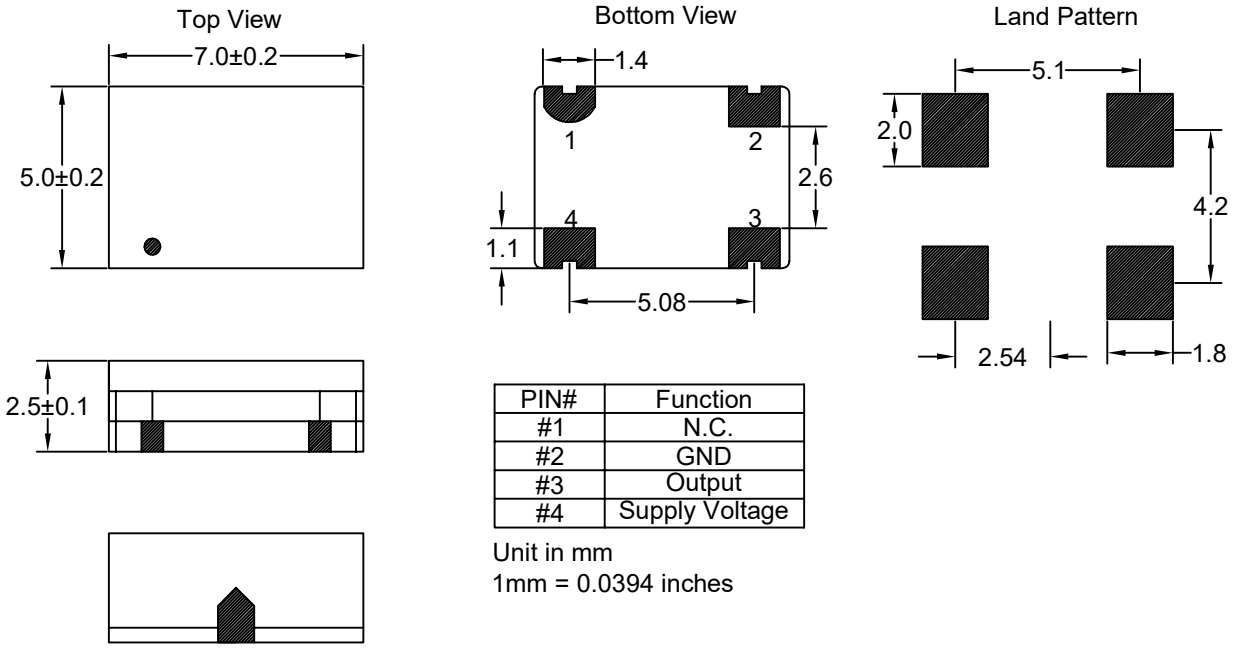
Frequency reference for real time clocks (RTCs)
Portable instruments
Timing synchronization for networks, servers, hubs, routers and switches
Smart metering, data loggers
GPS receivers. Telematics

Description

TCXO7501BL-30.72MHz-A is the 30.72MHz custom frequency with CMOS output TCXO.
The lower current consumption and small size make it ideal for Ethernet and networking applications.

Mechanical Drawing & Pin Connections

Drawing No: MD220011-1



PIN#	Function
#1	N.C.
#2	GND
#3	Output
#4	Supply Voltage

Unit in mm
1mm = 0.0394 inches

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F_{nom}			30.72		MHz	
RF Output							
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% ↔ 90% waveform		1.5	3.0	ns	
Duty Cycle		@50% Vcc	45	50	55	%	
Start-up Time					5	ms	
Power Supply							
Supply Voltage	V_{cc}	±5%		3.3		V	
Current Consumption				24		mA	
Current With Output Disabled				18		mA	
Frequency Stability							
Versus Operating Temperature Range		-40°C to +85°C			±2.5	ppm	
Versus Supply Voltage		±5% change			±0.2	ppm	
Versus Load		±10% change			±0.2	ppm	
Aging 1st Year					±2.0	ppm	25°C
Aging 10 Year					±10	ppm	25°C
Initial Calibration Tolerance (Initial frequency accuracy)		+25°C±2°C		±1.0	±2.0	ppm	
Reflow		One reflow and measured 24 hours afterward			±1.0	ppm	
Phase Noise		10Hz		-85		dBc	
		100Hz		-108		dBc	
		1KHz		-121		dBc	
		10KHz		-126		dBc	
		100KHz		-127		dBc	
Tristate Function on pad 2							
Output enable (OE) Control			70% of Vcc (min.) to enable output, CMOS level, do not leave this pin floating, if no connection desired, pls contact DEI.				
			30% of Vcc (max.) to disable the output. Output is high impedance				
Output Enable Time / Disable Time			200 nS. Max. / 50 nS. Max.				
Environmental specifications							
Solderability			MIL-STD-202F method 208E				
Reflow			260°C for 10 sec. 2X.				