Dynamic Engineers Inc.

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High precision, High reliable TCXO

Features and Benefits

Frequency range: 24.576MHz
Supply voltage: 3.3V
Steady current: 8mA Max
Output waveform: CMOS
Frequency stability vs. operating temperature: ±1.0ppm
Aging: ±1ppm per year
Phase noise@1KHz: -130dBc/Hz
Operating temperature: -40°C to +85°C
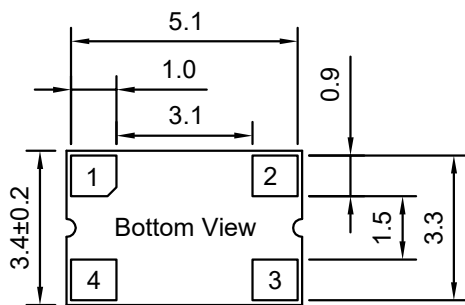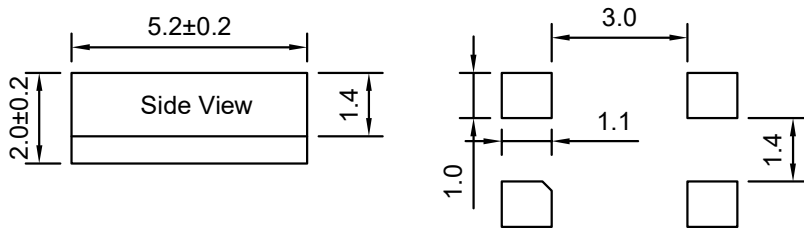Size: 5.2x3.4x2.0mm

Typical Applications

UHF Synthesizers
SATCOM System
Portable Microwave Applications

Description

TCXO5300CL-24.576MHz-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: MD140076-6

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

Unit in mm
1mm = 0.0394 inches

Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F_{nom}			24.576		MHz	
Output			CMOS				
Output Level		@25℃±5 ℃	$V_{OH} \geq 2.4$ $V_{OL} \leq 0.4$			V	
Output load			15 pF				
Duty Cycle		@25℃±5 ℃	45		55	%	
Rise/Fall		@25℃±5 ℃		6		ns	
Power Supply							
Voltage	V_{cc}			3.30		V	
Current Consumption		@25℃±5 ℃，Still Air			8	mA	
Frequency Stability							
Vs temperature		-40°C to +85°C			±1.0	ppm	
Vs supply voltage changes		±5%,@25℃±5 ℃			±0.1	ppm	
Vs load changes		±5%,@25℃±5 ℃			±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			-130	dBc/Hz	@25℃±5 ℃
Environmental Conditions							
Operating temperature range		-40°C to +85°C					
Storage temperature range		-55°C to +125°C; Off working status					