



Features and Benefits

Frequency range: 32.768KHz
Supply voltage: 2.5/3.0/3.3/5.0V
Current consumption: 3uA Max
Output waveform: HCMOS or CMOS/TTL
Frequency stability vs. operating temperature: ±3.0ppm
Aging per year: ±3.0ppm Max
Phase noise@1KHz: -135dBc/Hz
Operating temperature: -40°C to +85°C
Size:3.2x2.5x1.4mm

Typical Applications

Cellular Base Stations
Instrumentation
Microwave Applications
Radar reference

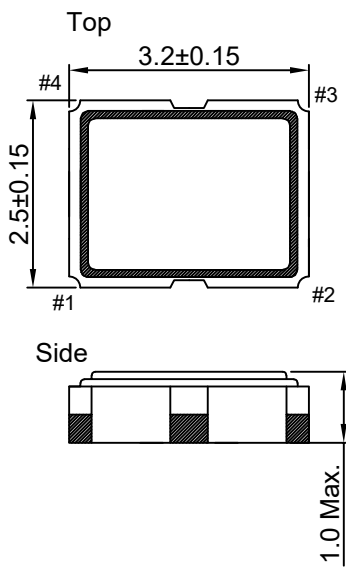
Description

The TCXO3225AX-32.768KHz is 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: MD240032-1



Pin Connections

Pin	Function
1	Output Control
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.		
Frequency Range	F _{nom}			32.768		KHz	
RF Output							
Signal Waveform			CMOS/TTL or HCMOS				
Load	R _L			15		pF	
H-Level Voltage	V _H		V _{cc} -0.4		0.4	V	
L- Level Voltage	V _L				0.4	V	
Duty Cycle			40	50	60	%	
Rise/Fall time					100	ns	
Power Supply							
Supply Voltage	V _{cc}			2.5,3.0,3.3,5.0		V	
Current Consumption				1.0	3.0	uA	
Output Enable		Enable—High Disable--Low	20%V _{cc}		80%V _{cc}		
Startup Time				1	3	Sec	
Frequency Stability							
Versus Operating Temperature Range		Reference to +25°C		±3.0 or ±5.0		ppm	
Initial Tolerance		+25°C		±1.5		ppm	
Versus supply voltage		±5% change			±0.2	ppm	
Versus load		±10% change			±0.2	ppm	
Aging 1 st Year					±3.0	ppm	
Phase noise @25°C		10Hz		-80		dBc/Hz	
		100Hz		-115		dBc/Hz	
		1kHz		-135		dBc/Hz	
		10kHz		-138		dBc/Hz	
Environmental, Mechanical Conditions							
Operating temperature range		-20°C to +70°C, -40°C to +85°C					
Storage temperature range		-50°C to +100°C					