



Features and Benefits

Frequency range: 10-50MHz
Supply voltage: 2.5/3.0/3.3V
Current Consumption: 2mA Typ
Output waveform: Clipped Sine or CMOS/TTL
Frequency stability vs. operating temperature: ± 0.5 ppm
Aging per year: ± 1.0 ppm Max
Phase noise@1KHz: -135dBc/Hz
Operating temperature: -40°C to +85°C
Size:3.2x2.5x1.0mm

Typical Applications

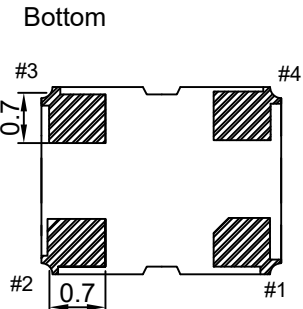
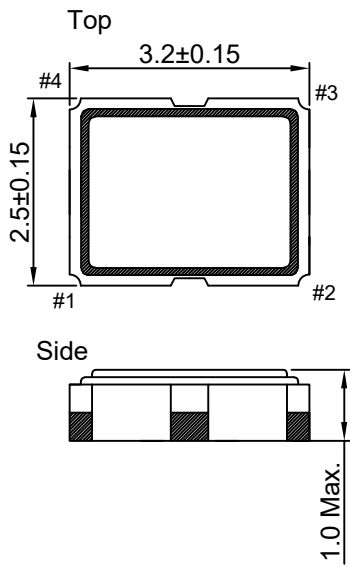
Cellular Base Stations
Instrumentation
Microwave Applications
Radar reference

Description

The TCXO3225AX 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: MD2400' \$-1



Pin Connections

Pin	Function
1	Control Voltage/N.C.
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}		10		50	MHz	
RF Output							
Signal Waveform			CMOS/TTL				
Load	R _L			15		pF	
H-Level Voltage	V _H		90%V _{cc}			V	
L- Level Voltage	V _L				10%V _{cc}	V	
Duty Cycle			45	50	55	%	
Rise/Fall time				10		ns	
Clipped Sinewave							
Signal Waveform			Clipped Sinewave				
Level			0.8			V _{pp}	
Load		±10%	10Kohm//10pF				
Power Supply							
Supply Voltage	V _{cc}			2.5, 3.0, 3.3		V	
Start up Time	T _{up}			5		ms	
Current Consumption				2.0	5.0	mA	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)			±5 or ±10			ppm	
EFC voltage	V _c		0	V _{cc} /2	V _{cc}	V	
Input Impedance				100		kΩ	
Linearity				10		%	
EFC Slope				positive			
Frequency Stability							
Versus Operating Temperature Range		Reference to +25°C		±0.5, ±1, ±2 or ±3		ppm	
Initial Tolerance		+25°C			±2	ppm	
Versus supply voltage		±5% change			±0.3	ppm	
Versus load		±10% change			±0.3	ppm	
Aging 1 st Year					±1.0	ppm	
Aging 5 years					±3	ppm	
SSB Phase noise (10MHz)		10Hz		-80		dBc/Hz	
		100Hz		-115		dBc/Hz	
		1kHz		-135		dBc/Hz	
		10kHz		-138		dBc/Hz	
		100kHz		-142		dBc/Hz	
Environmental, Mechanical Conditions							
Operating temperature range	-20°C to +70°C, -40°C to +85°C						
Storage temperature range	-55°C to +125°C						
Moisture Sensitivity Level	1						