



Features and Benefits

Frequency range: 1.5-150MHz
Supply voltage: 1.8/3.3V
Current: 40mA Max
Frequency stability vs. temperature: ±25PPM
Aging: ±3PPM 1st year
Operating temperature: -40°C to +85°C
Size: 3.2x2.5x1.1 mm

Typical Applications

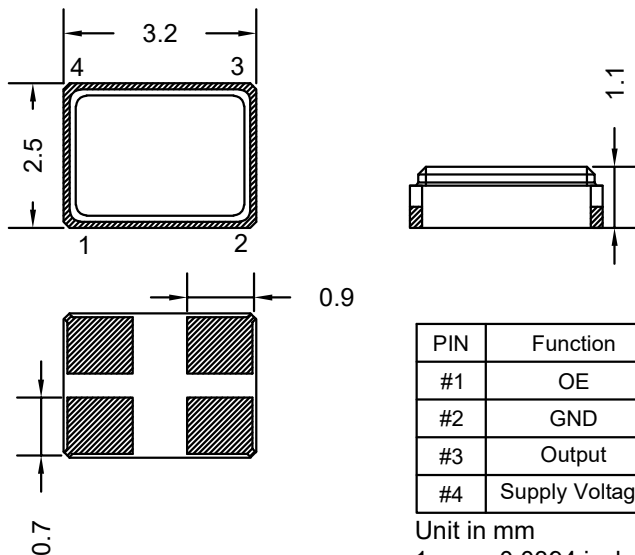
Cellular Base Stations
Instrumentation
Microwave Applications
Radar reference

Description

The XO3225AX 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: MD24003, -1





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F _{nom}	Fundamental	1.5		150	MHz	
RF Output							
Signal Waveform			HCMOS/CMOS				
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%-90%			4	ns	
Output Control			Enable -- High Disable -- Low				
Power Supply							
Supply Voltage	V _{cc}			1.8		V	See ordering information
Start up Time	T _{up}				5	ms	
Current Consumption		1.5-10MHz			10	mA	
		10-39MHz			20	mA	
		40-60MHz			30	mA	
		60-100MHz			40	mA	
Frequency Stability							
Versus Operating Temperature Range		Reference to +25°C		±25		ppm	See ordering information
Perturbation					±3.0	ppm	
Aging 1 st Year					±3.0	ppm	
SSB Phase noise (100MHz)		1Hz		-45		dBc/Hz	@+25°C
		10Hz		-75		dBc/Hz	
		100Hz		-105		dBc/Hz	
		1kHz		-125		dBc/Hz	
		10kHz		-135		dBc/Hz	
100kHz		-140		dBc/Hz			
Environmental, Mechanical Conditions							
Operating temperature range	-20°C to +70°C, -40°C to +85°C						

Ordering Information

XO3225AX	-	10MHz	-	x	x	x	x
Group				01	02	03	04

For example, XO3225AX-10MHz-1-1-2-2 denotes the XO has the following specifications:
 Temperature Range: -20°C to +70°C
 Stability Over Temperature: ±25ppm
 Supply Voltage: 3.3V
 Output Type: HCMOS

01	Temperature Range
Code	Specification
1	-20°C to +70°C
2	-40°C to +85°C

02	Frequency Stability
Code	Specification
1	±25ppm
2	±50ppm
3	±100ppm

03	Supply Voltage
Code	Specification
1	1.8V
2	3.3V

04	Output Type
Code	Specification
1	CMOS/TTL
2	HCMOS