



Features and Benefits

Frequency range: 76.8MHz
Supply voltage: 3.3V
Steady current: 3.8mA Typ.
Output waveform: CMOS
Frequency stability vs. operating temperature: 20ppm
Operating temperature: -40°C to +85°C
Size: 3.2x2.5x0.75mm

Typical Applications

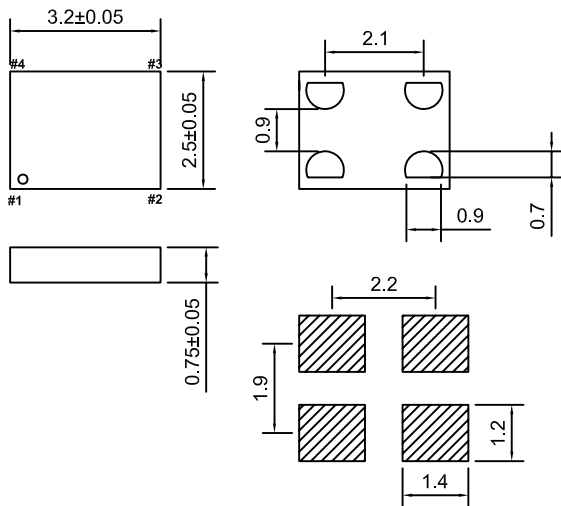
Ethernet, Server, PC, ADC,
Storage Area Network, SONET, etc.

Description

XO3225AL-76.8MHz-A offers 76.8MHz frequency, High precision and high frequency stability, allowing for high density surface mounting, ideally suited designed for use in Portable Applications.

Mechanical Drawing & Pin Connections

Drawing No: MD210007-1



Unit : mm
1mm=0.039inch

Pin Function

PIN	Symbol	Functionality	
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1	OE/ \overline{ST} /NC	Output Enable	H:Specified frequency output L:Output is high impedance. Only output driver is disabled
		Standby	H:Specified frequency output L:Output is low(weak pull down).Device goes to sleep mode. Supply current reduces to I _{std} .
		N.C.	Any voltage between 0 to V _{dd} or Open: Specified frequency output. Pin1 has no function
2	GND	GND	Ground
3	OUT	Output	Oscillator output
4	VDD	Power	Supply voltage

Notes:

- In OE or \overline{ST} mode, a pull-up resistor of 10K or less is recommended if PIN1 is not externally driven.If PIN1 needs to be left floating. Use the NC option.
- A capacitor of value 0.1uF or higher between V_{dd} and GND is required.



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency	F			76.8		MHz	
Output			CMOS				
Rise Time / Fall Time	Tr / Tf	20-80%		2	2	nsec	
Output Voltage High		I=-0.5mA	90%Vdd			V	
Output Voltage Low		I=-0.5mA			10%vdd		
Startup Time				5		msec	
Input pull up Impedance		Pin1, OE logic high or logic low, or ST logic high		87	150	Kohm	
		Pin1, ST logic low	2			Kohm	
Symmetry (Duty ratio)			45		55	%	
Power Supply							
Supply Voltage	V _{dd}			3.3		V	
Current Consumption		No load condition, f=48MHz, Vdd=1.8V		3.8	4.5	mA	
Standby Current		ST pin=high, output is weakly pulled down		2.1	4.3	mA	
Input High Voltage			70% Vdd			V	
Input Low Voltage					30%Vdd	V	
Frequency Stability							
Frequency Stability		Inclusive of frequency tolerance at 25°C, variation over temperature, supply voltage and load variation	±20ppm (±25ppm, ±50ppm options)			ppm	
Aging		@+25°C 1st year	-3		+3	ppm	
Initial tolerance		Frequency offset at 25°C post reflow		20		ppm	
Environmental Conditions							
Operating temperature range		-40°C to +85°C					
Storage temperature range		-55°C to +125°C					