



### Features and Benefits

2.0x1.6mm size ultra-miniature and lightweight SMD crystal units with low profile of 0.5mm  
Frequency range from 16MHz to 54MHz  
High precision and high frequency stability  
Allowing for high density surface mounting  
Automatic mounting and reflow soldering  
RoHS Compliant /Pb Free

### Typical Applications

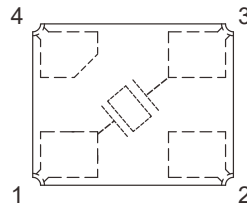
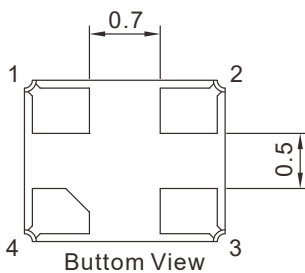
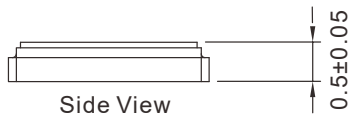
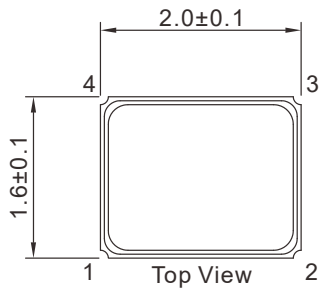
Wireless communications  
PC, IPAD, PDA, Wearable device, etc.

### Description

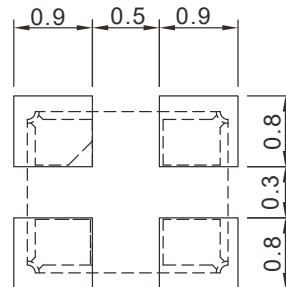
XTAL2016AL offers frequency range from 16MHz to 54MHz, High precision and high frequency stability, Allowing for high density surface mounting, Ideally suited designed for use in Portable Applications.

### Mechanical Drawing & Pin Connections

Drawing No: MD20000-1



Top View Crystal Connection



Suggested Layout

Unit in mm  
1mm = 0.0394 inches



### Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F		16		54	MHz	
Load Capacitance			8pF, 10pF, or specify			pF	
Shunt Capacitance	C0				5	pF	
Drive Level			1	50	200	uW	
Equivalent Series Resistance (Fundamental)		16~19.2 MHz			200	ohm	
		19.2~30 MHz			100	ohm	
		30~54 MHz			80	ohm	
<b>Frequency Stability</b>							
Frequency Stability		Over Operating Temperature	±10ppm, ±20ppm, or specify			ppm	
Frequency Tolerance		(at 25°C)	±10ppm, ±20ppm, or specify			ppm	
Aging		@+25°C 1st year			±3	ppm	
<b>Environmental Conditions</b>							
Operating temperature range		-20°C to +70°C					
Storage temperature range		-55°C to +125°C					