

# XM-1 5x7.5mm Crystal Resonator



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## Description:

Connor-Winfield's model XM-1 is a Crystal Resonator in a 5mm x 7.5mm surface mount package. Designed for applications requiring a small packaged tight tolerance crystal resonator. The surface mount package is designed for high density mounting and is optimum for mass production.

## Features:

### Model: XM-1

Frequency Calibration @ 25°C: +/-50 ppm  
Frequency Stability: +/-50 ppm  
Temperature Range: -10 to 60°C  
Tape and Reel Packaging  
RoHS Compliant / Lead Free

## Electrical Specifications

Parameter	Minimum	Nominal	Maximum	Units	Notes
Output Frequency	8	-	100	MHz	
Operation Mode	Fundamental, 3rd Overtone or 5th Overtone				
Cut	AT Cut				
Frequency Calibration (@25 °C)	-50	-	50	ppm	
Frequency Stability vs. Temp	-50	-	50	ppm	
Operating Temperature Range:	-10	-	60	°C	
Shunt Capacitance (C0)	-	-	7	pF	
Load Capacitance (CL)	See table below				
Equivalent Series Resistance:(ESR)	See table below				
Drive Level	-	-	100	uW	
Insulation Resistance	500M	-	-	ohm	@ 100 Vdc
Aging: (1st Year)	-	-	±5.0	ppm	

Frequency Range	Mode of Operation	ESR	CL
8 MHz to 9.999 MHz	Fundamental	60 Ohms Max.	16 pF
10 MHz to 15.999 MHz	Fundamental	50 Ohms Max.	16 pF
16 MHz to 32 MHz	Fundamental	40 Ohms Max.	16 pF
28 MHz to 83.999 MHz	3rd Overtone	60 Ohms Max.	Series
84 MHz to 100 MHz	5th Overtone	80 Ohms Max.	Series

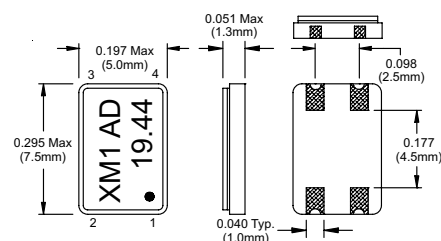
## Environmental Characteristics

Vibration:	Vibration per Mil Std 883E Method 2007.3 Test Condition A
Shock:	Mechanical Shock per Mil Std 883E Method 2002.4 Test Condition B.
Soldering Process;	RoHS compliant lead free. See soldering profile on page 2.
Solderability;	Solderability per Mil Std 883E Method 2003

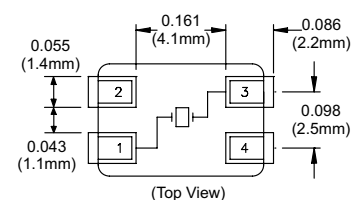
Ordering Information: Example: XM-1-019.44M 50/50/-10 60/16

Consult the factory for additional Crystal specifications for this package.

## Package Outline



## Suggested Pad Layout



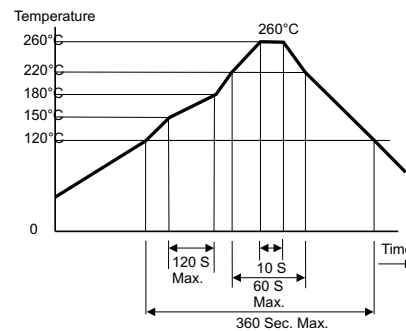
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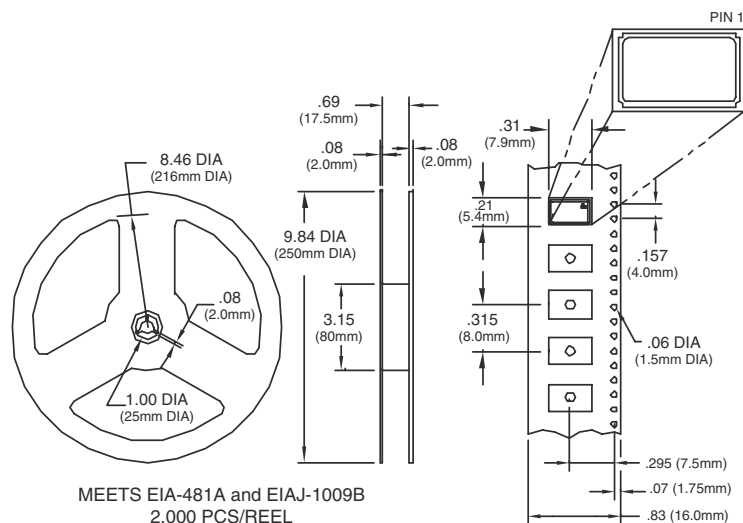
## Pad Connections

- 1: Crystal Connection
- 2: N/C (Cover)
- 3: Crystal Connection
- 4: N/C (Cover)

## Solder Profile



## Tape and Reel Information



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