

RoHS Compliant
Pb - Lead Free
AEC-Q200 Qualified

Ltr	Revisions	Date	Appr

Electrical Specifications:

Frequency Range		24.000 to 48.000	MHz
Mode of Oscillation	Fundamental		
Frequency Tolerance at 25°C		±50	PPM Max (Note 1)
Frequency Stability over Temperature Range		±100	
Operating Temperature Range		-40 to +125	°C
Storage Temperature Range		-55 to +125	
Aging		±3	PPM Max/Year
Load Capacitance		6 to 32 and Series Resonance	pF
Shunt Capacitance		3.0	
Equivalent Series Resistance (ESR)		See ESR Table	Ohm
Drive Level		100	uW Max

Frequency Range and ESR Values:

Frequency Range in MHz	ESR Ohm Max	Mode of Operation
24.000 to 29.999	120	Fundamental
30.000 to 36.999	100	Fundamental
37.000 to 48.000	80	Fundamental



11-3 Chien-Kuo Rd T.E.P.Z. 4027 Taiwan, ROC

All dimensions are millimeters.

CAD: TCR

Review: EG

Appr: JL

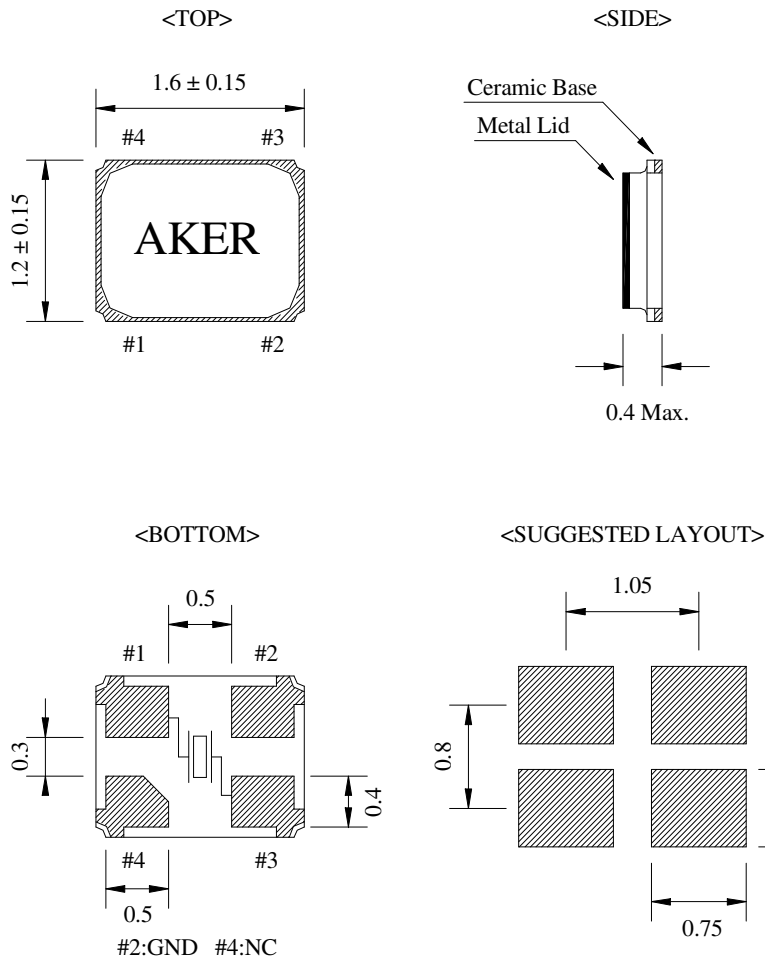
Page: 1/4 Date: May 25, 2017

Specification Title:

**Microprocessor Crystal Unit
Low Profile
1.2 x 1.6 millimeter Surface Mount
General Product Specification**

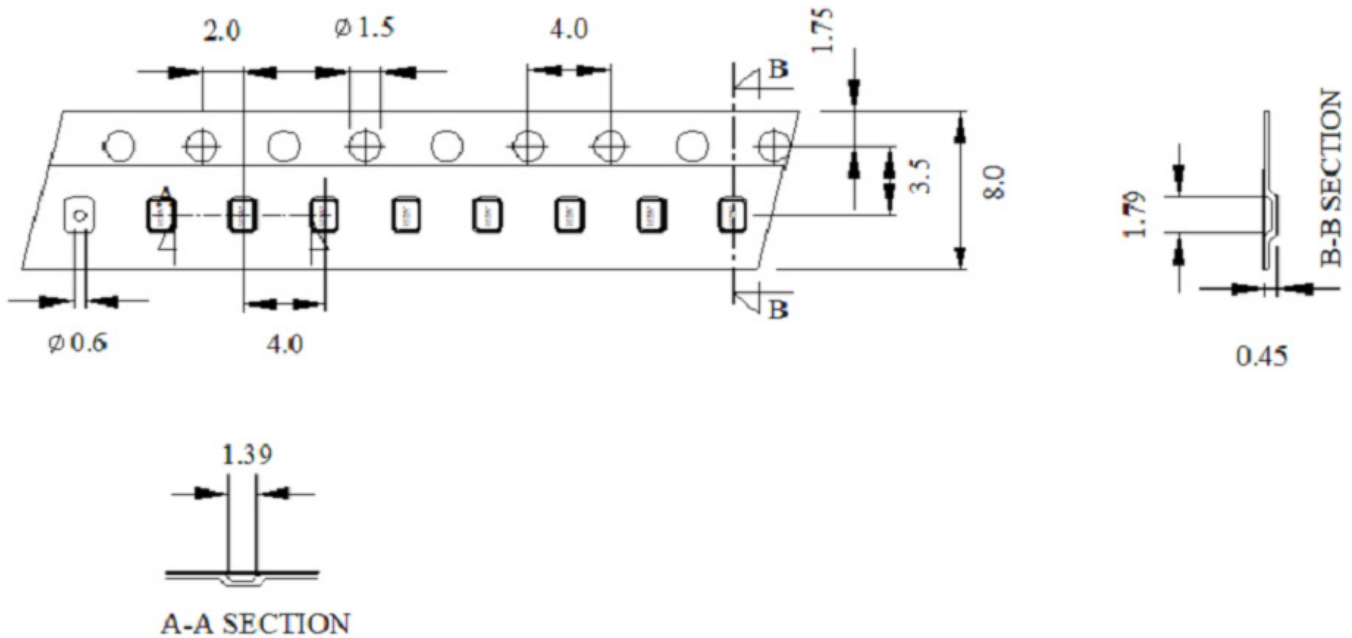
Part Number: **C16 X1 Series**

Mechanical Outline:



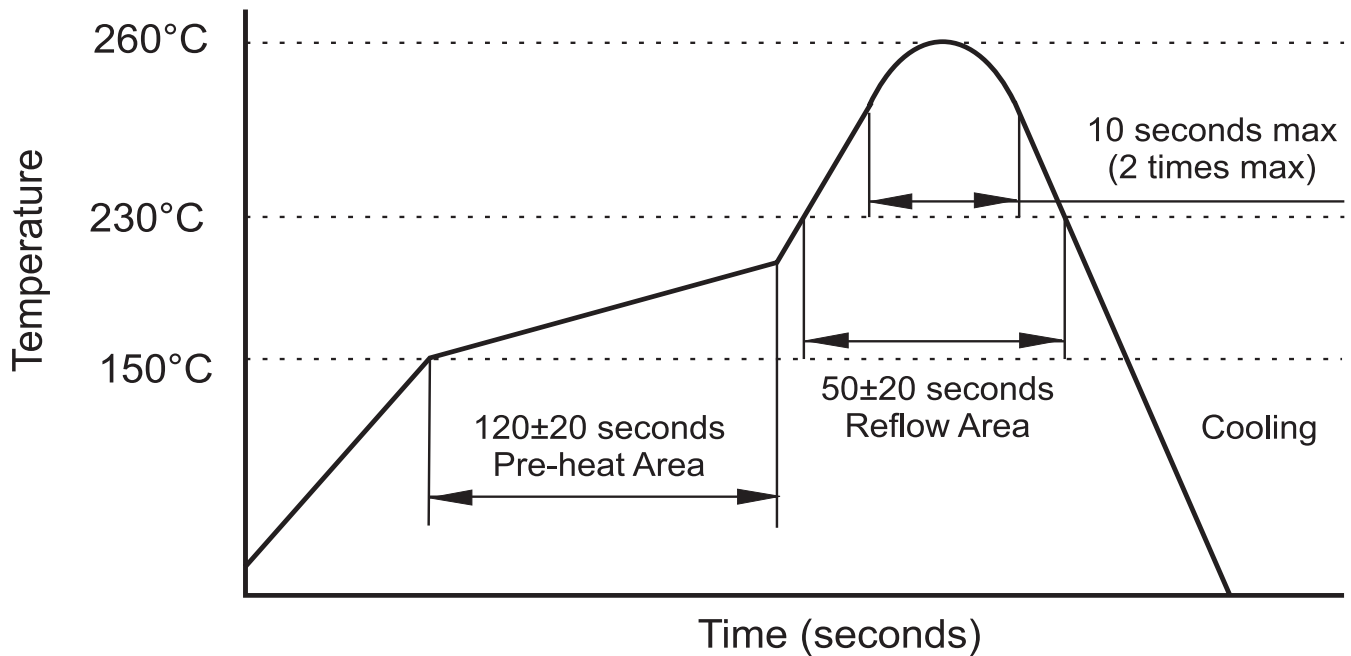
**Package is Seam Sealed Ceramic-Metal.
Dimensions are millimeters.**

Carrier Tape Dimensions:



Dimensions are millimeters.

Solder Reflow Characteristics:



How to build a Part Number:

Series		C	Parameter
Package		16	1.6 x 1.2 mm Seam Seal
		-	
Frequency		24.000 to 48.000	MHz
		-	
Load Capacitance		6	6 pF
		10	10 pF
		12	12 pF
		16	16 pF
		18	18 pF
		20	20 pF
		32	32 pF
		-	
Frequency Tolerance (Note 1)		50	±50 PPM
Frequency Stability (Note 1)		100	±100 PPM
		-	
Temperature Range		X1	-40 to +125 °C
		-	
Packaging		M	250pcs / Reel
		R	1000pcs / Reel
		R3	3000pcs / Reel

Part Number Example:

C16-40.000-10-50100-X1-R

C16- 1.6 x 2.0 mm SMD Seam Seal Crystal Unit

40.000 MHz Nominal Frequency

10 pF Load Capacitance

50100: ±50 PPM Frequency Tolerance and ±100 PPM Frequency Stability

Fundamental Mode

-40 to +125° C Temperature Range

R: Tape and Reel Packaging

Notes:

- 1- Frequency Tolerance and Stability options are limited due to physical size.
- 2- Product is shipped in Tape and Reel configuration.
- 4- Quantities less than 3000 are shipped bulk in ESD pouches.
- 5- Specification subject to change without notice.