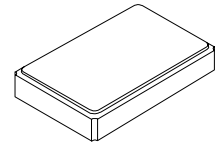





XTL1003

**13.56000 MHz
Crystal Unit**



SM5032-4 Case

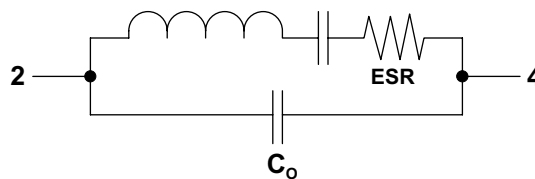
- **Surface Mount Seam-Weld Package**
- **Good Frequency Stability over Temperature**
- **Excellent Reliability**
- **Complies with Directive 2002/95/EC (RoHS)** 

The XTL1003 is a surface mount 5.0 x 3.2 mm crystal unit for use in wireless telecommunications devices, especially where an ultra-miniature package is needed for mobility.

Electrical Characteristics

Characteristic	Sym	Notes	Minimum	Typical	Maximum	Units
Nominal Frequency				13.56000		MHz
Mode of Oscillation			Fundamental			
Operating Temperature Range			-20		+70	°C
Frequency Stability over Operating Temperature Range			±20 ppm (referred to the value at 25 °C)			
Frequency Make Tolerance	F _L		±10 ppm @ 25 °C ±3 °C			
Equivalent Series Resistance	ESR				40	Ω
Nominal Drive Level				10		uW
Shunt Capacitance	C _O				2.0	pF
Load Capacitance	C _L			20		pF
Motional Capacitance	C _M		4.2 fF ±20%			
Aging			±1.0 ppm/year @25 °C			
Standard Shipping Quantity on 330 mm (13") Reel				3000		units
Lid Symbolization (in addition to Lot and/or Date Codes)			1003 <u>YWWS</u>			

Crystal Equivalent Circuit



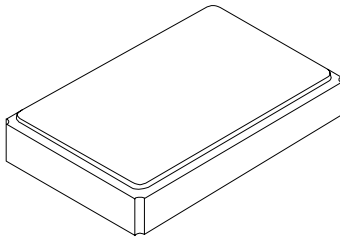
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

Notes:

1. The design, manufacturing process, and specifications of this device are subject to change without notice.

SM5032-4 Case

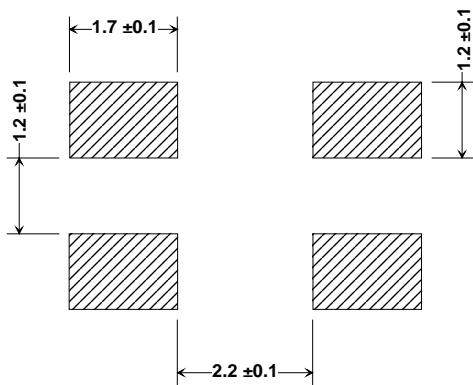
4-Terminal Surface-Mount Seam Weld Case 5.0 x 3.2 mm Nominal Footprint



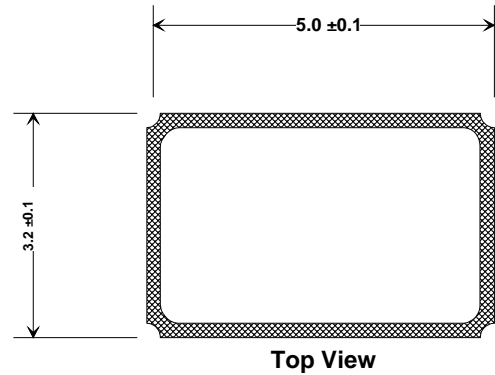
Electrical Connections

Pin	Connection
1	GND
2	IN/OUT
3	GND
4	IN/OUT

Note: Pin #1 & #3 are connected to metal cap on top



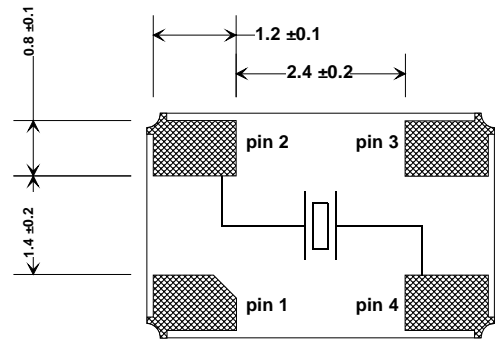
Footprint (mm)



Top View

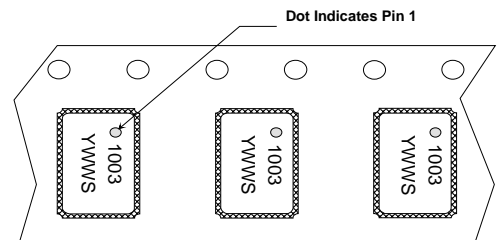


Side View



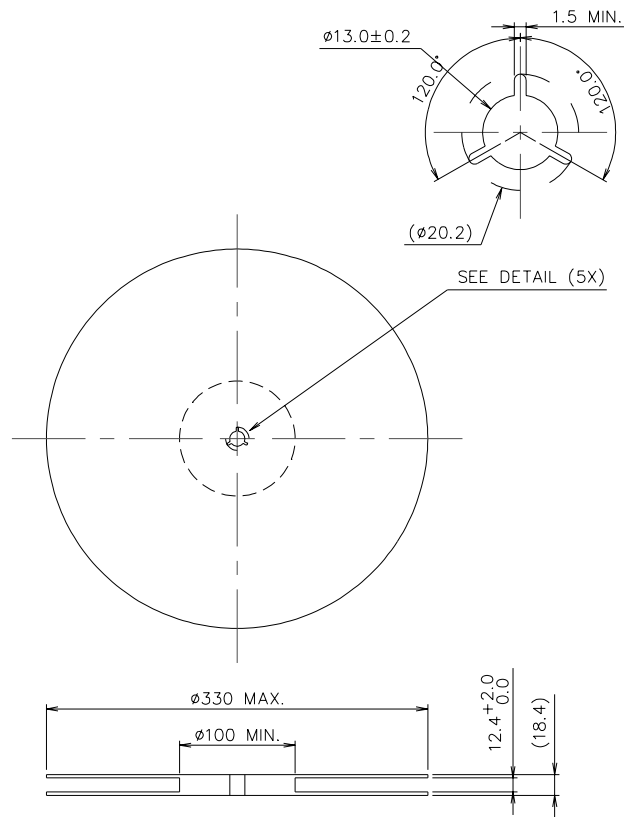
Bottom View

Package Dimensions (mm)

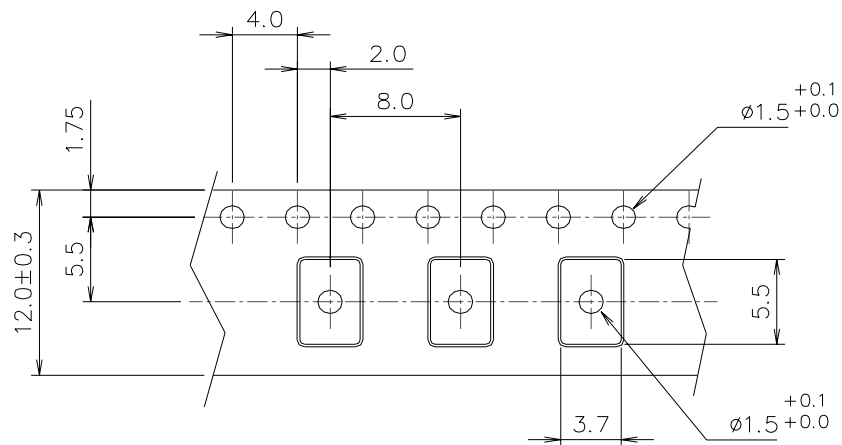


Package Orientation in Carrier Tape

Reel Dimensions



Tape Dimensions



Notes:

1. Unless otherwise specified, tolerance on dimensions is ± 0.1 mm
2. Material is black conductive polystyrene
3. 10 pitch cumulative tolerance is ± 0.2 mm