



XTL1020

**12.80000 MHz
Crystal Unit**



- **High Performance Crystal for Wireless Communications Devices**
- **Excellent Frequency Stability and Reliability**
- **Ultra-Miniature Surface Mount Seam Weld Package**
- **Complies with Directive 2002/95/EC (RoHS)**

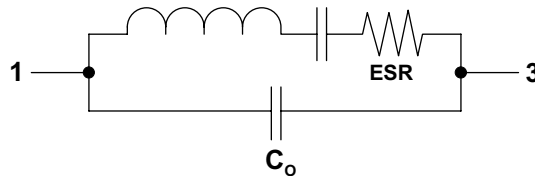


The XTL1020 is a very high stability 12.8 MHz crystal suitable for a wide range of communications applications. The XTL1020's excellent frequency stability supports operation from -40 to +85 °C. The XTL1020 is specifically recommended for use with RFM's TRC103 transceiver IC.

Electrical Characteristics

Characteristic	Sym	Notes	Minimum	Typical	Maximum	Units
Nominal Frequency	F _O			12.80000		MHz
Mode of Oscillation			Fundamental			
Storage Temperature Range			-40		+85	°C
Operating Temperature Range			-40		+85	°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				50	Ω
Shunt Capacitance	C _O			7		pF
Nominal Drive Level				10		μW
Load Capacitance	C _L			15		pF
Aging			±2.0 ppm/year @ 25°C			
Standard Shipping Quantity on 330 mm (13") Reel				3000		units
Lid Symbolization (in addition to Lot and/or Date Codes)			1020 <u>YWWS</u>			

Crystal Equivalent Circuit



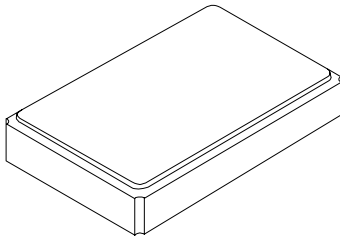
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

Notes:

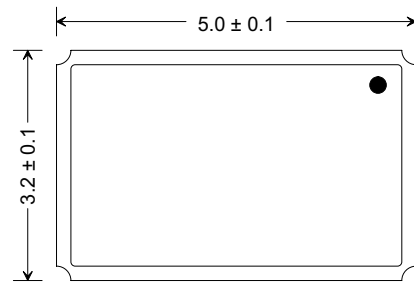
1. US and international patents may apply.
2. The design, manufacturing process, and specifications of this device are subject to change without notice.
3. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.

SM5032-4 Case

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

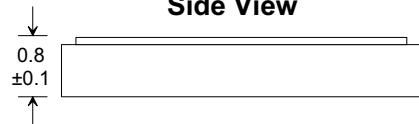


Top View

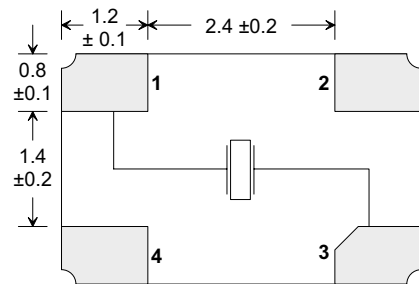


Dot indicates Pin 3 location

Side View



Bottom View

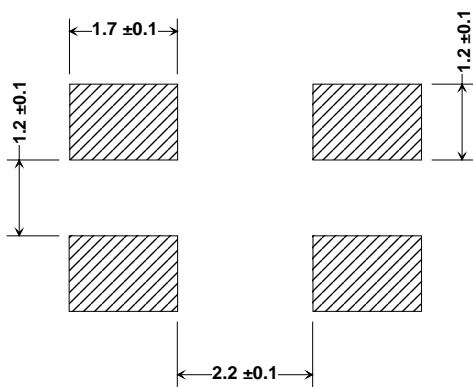


Pins 2 and 4 are connected to the lid

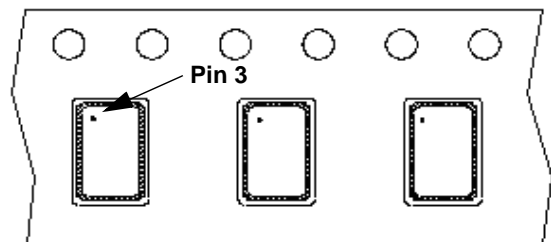
Dimensions are in mm

Electrical Connections

Pin	Connection
1	IN/OUT
2	GND (lid)
3	IN/OUT
4	GND (lid)

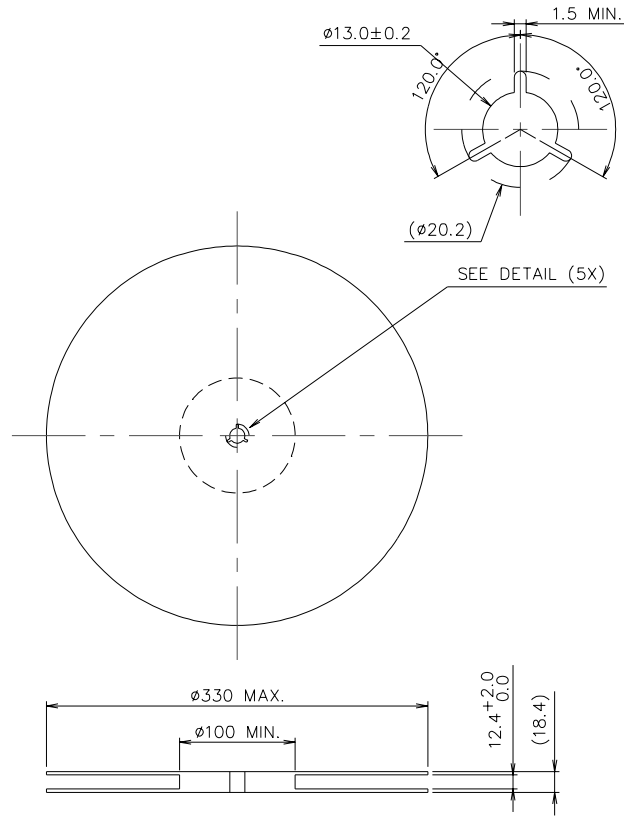


Footprint (mm)

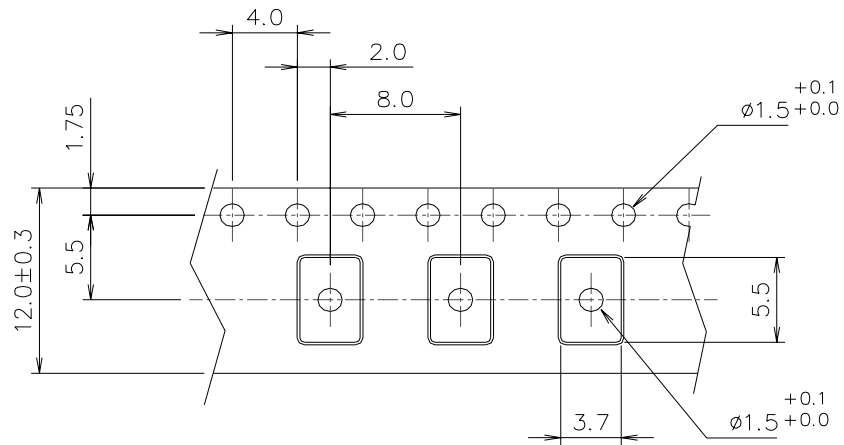


Package Orientation in Carrier Tape

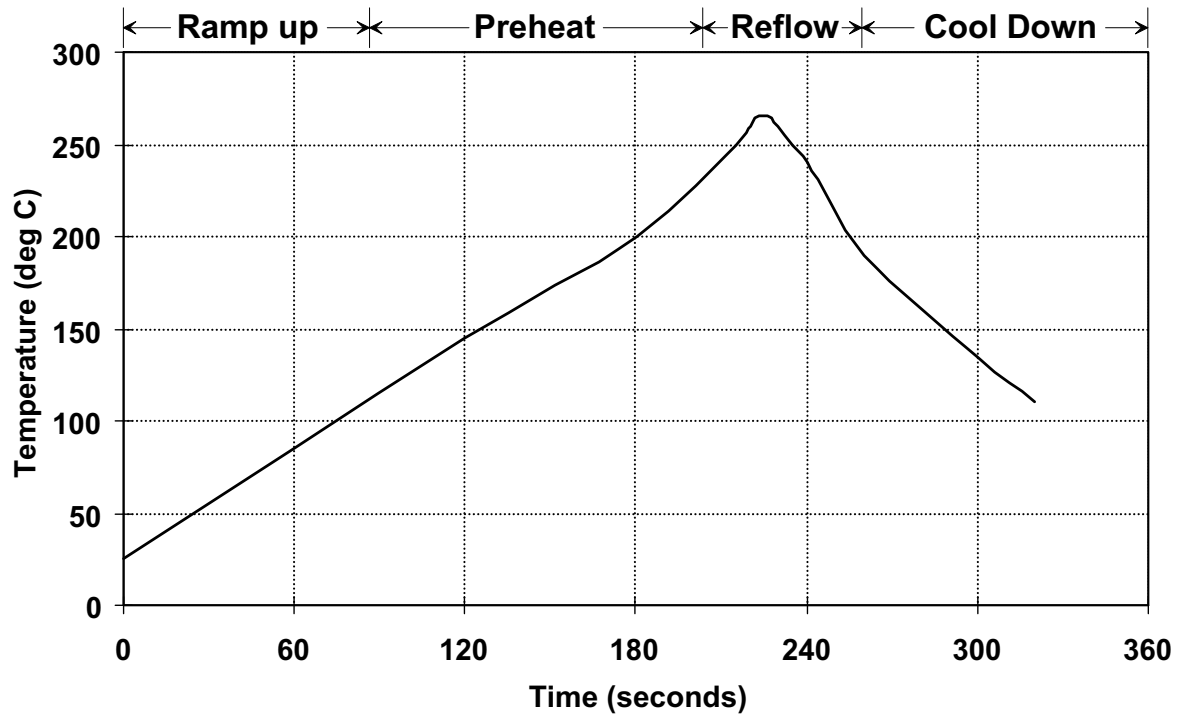
Reel Dimensions



Tape Dimensions



Reflow Profile



Mouser Electronics

Authorized Distributor

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Murata:

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