RFMi
A BRAND OF AKOUSTIS

Preliminary

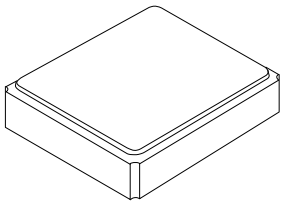
RoHS compliant

XTL1021P

16.0000 MHz Crystal Unit

- ***High Performance Crystal for Wireless Communications Devices***
- ***Excellent Frequency Stability and Reliability***
- ***Miniature Surface Mount Seam Weld Package***
- ***Complies with Directive 2002/95/EC (RoHS)***
- ***Moisture Sensitivity Level: 1***

The XTL1021P is a high stability 16.0000 MHz crystal suitable for a wide range of communications applications where very small size is important.

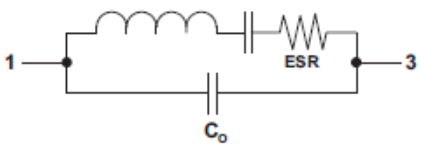


SM3225-4 Case

Electrical Characteristics

Characteristic	Sym	Notes	Minimum	Typical	Maximum	Units
Nominal Frequency	f_O			16.0000		MHz
Mode of Oscillation				Fundamental		
Storage Temperature Range in Tape and Reel			-40		+85	°C
Operating Temperature Range			-40		+85	°C
Frequency Make Tolerance	f_L			±10 ppm @ 25 °C ±3 °C		
Frequency Stability, -40 to +85 °C				±20 ppm referred to the value at 25 °C		
Equivalent Series Resistance	ESR				60	Ω
Shunt Capacitance	C_O				3	pF
Nominal Drive Level					10	µW
Load Capacitance	C_L			12		pF
Aging, 25 °C					±1.0	ppm/yr
Insulation Resistance, 100 VDC			500			MΩ
Standard Shipping Quantity on 178 mm (7") Reel				3000		units
Lid Symbolization (Y = year, WW = week, S = shift)	1021P, YWWS					

Crystal Equivalent Circuit



CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

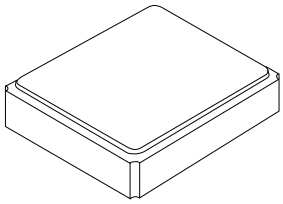
NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

SM3225-4 Case

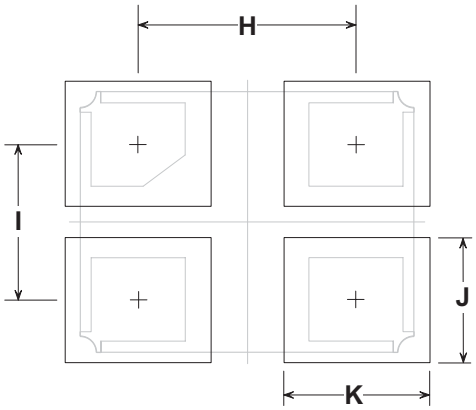
4 Terminal Surface Mount Seam Weld Case

3.2 x 2.5 mm Nominal Footprint



Electrical Connections

Connection	Terminals
Input / Output	1
Ground	2
Input / Output	3
Ground	4

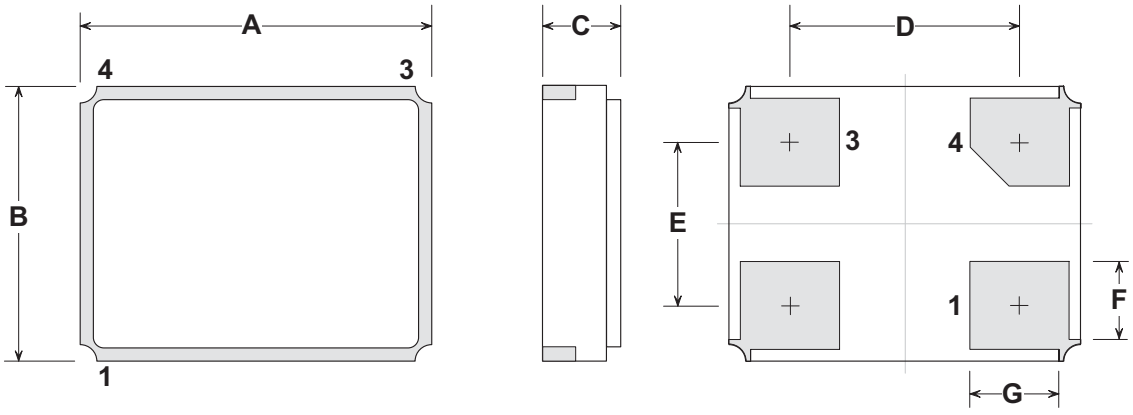


Typical PCB Land Footprint
(Top View)

Case and PCB Land Dimensions

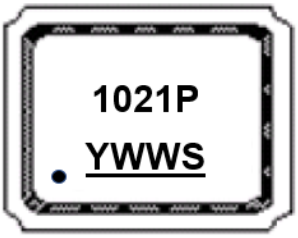
Dimensions	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.10	3.20	3.30	0.122	0.126	0.130
B	2.40	2.50	2.60	0.094	0.098	0.102
C			0.70			0.028
D		2.10			0.083	
E		1.50			0.059	
F		0.80			0.031	
G		0.90			0.035	
H		2.10			0.083	
I		1.50			0.059	
J		1.20			0.047	
K		1.40			0.055	

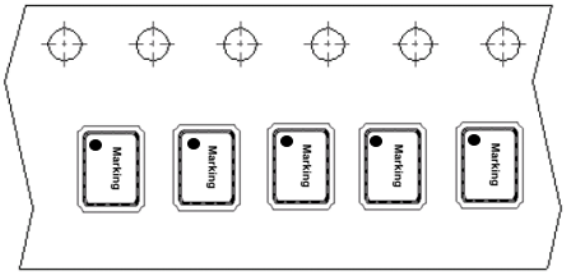
Case Outline Drawing



Marking:

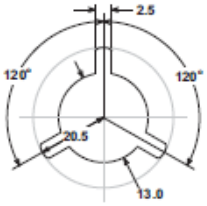
Y = Year, WW = Week, S = Shift



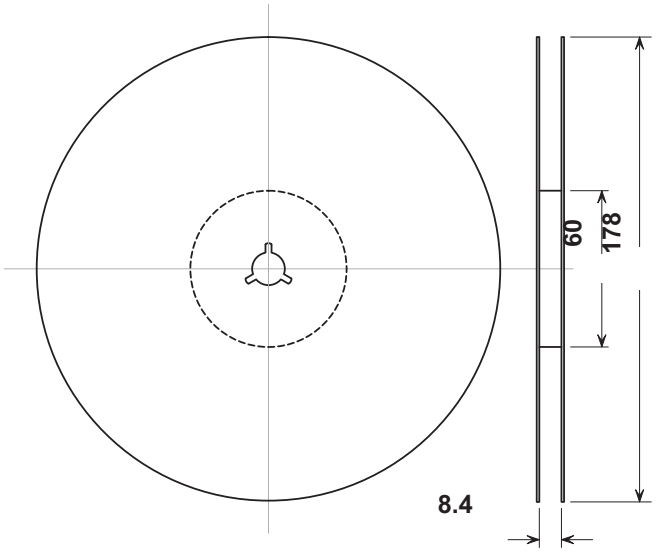


Reel Dimensions

Tape and Reel Standard per ANSI/EIA-481

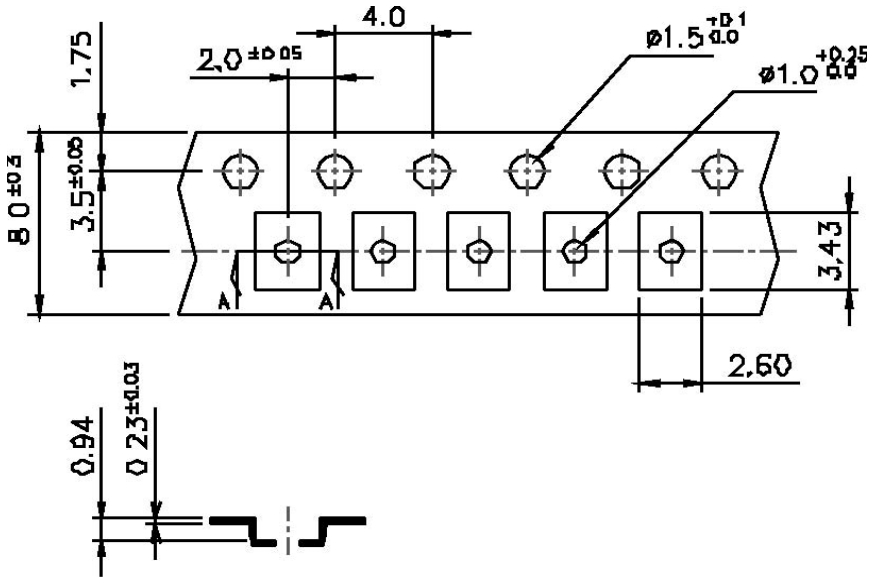


Reel Hub Detail



Dimensions in mm

Tape Dimensions



SECTION "A–A"

Recommended Reflow Profile

1. Preheating shall be fixed at 150~180ºC for 60~90 seconds.
2. Ascending time to preheating temperature 150ºC shall be 30 seconds min.
3. Heating shall be fixed at 220ºC for 50~80 seconds and at 260ºC +0/-5ºC peak (10 seconds).
4. Time: 5 times maximum.