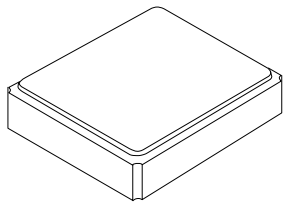
RFMi
BRAND OF AKOUSTIS

RoHS compliant

XTL2119P

40.000000 MHz Crystal Unit



SM3225-4

Features:

- Surface Mount Hermetic Package
- Excellent Reliability Performance
- Good Frequency Perturbation and Stability over temperature
- Ultra Miniature Package
- Moisture Sensitivity Level: 1

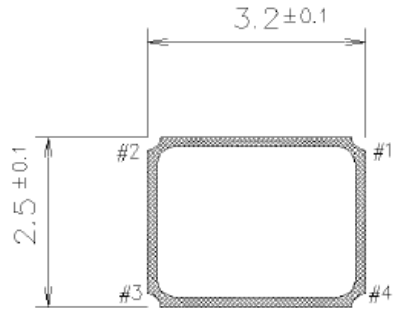
Description and Applications:

Surface mount 3.2 mm x 2.5 mm crystal unit for customer for use in wireless communications devices, especially for a need of ultra miniature package for mobility.

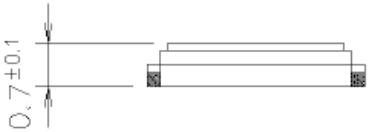
Electrical Specifications:

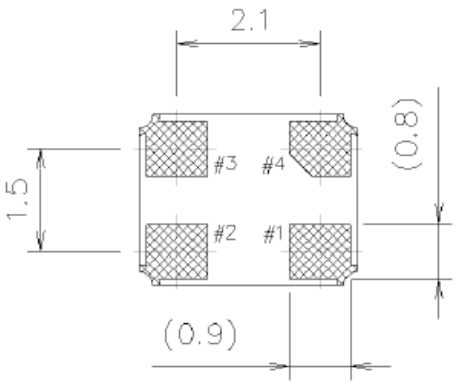
XTL2119P	**Specification**
Nominal Frequency	40.000000 MHz
Mode of Oscillation	Fundamental
Storage Temperature Range	-40°C to +125°C
Operating Temperature Range	-40°C to +105°C
Frequency Stability over Operating Temperature -40°C to +100°C	+/- 15 ppm (referred to the value at 25°C)
Frequency Stability over Operating Temperature +100°C to +105°C	+/- 20 ppm (referred to the value at 25°C)
Frequency Make Tolerance (FL)	+/- 7 ppm @ 25°C +/- 3°C
Equivalent Series Resistance (ESR)	15 Ω max.
Nominal Drive Level	10 uW and 400uW max
Shunt Capacitance (Co)	3.0 pF max
Load Capacitance (CL)	10 pF
Trim Sensitivity (TS)	10~13 ppm/pf
Aging	+/-2ppm/year
Insulation Resistance	500 MΩ min./DC 100V
Unit Weight	0.017+/-0.005 g

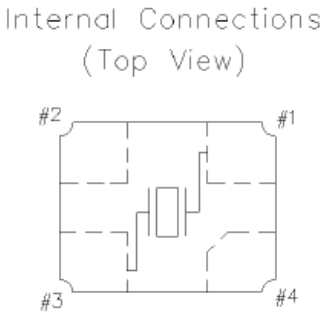
Mechanical Dimensions (mm):



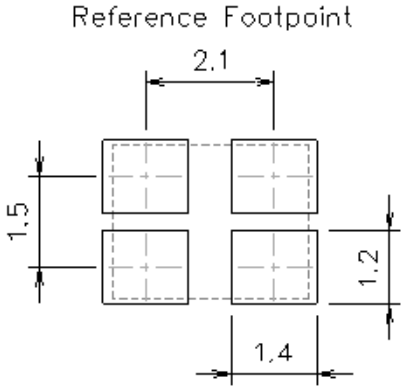
	Pin Connection
#1 pin	IN/OUT
#2 pin	GND
#3 pin	IN/OUT
#4 pin	GND





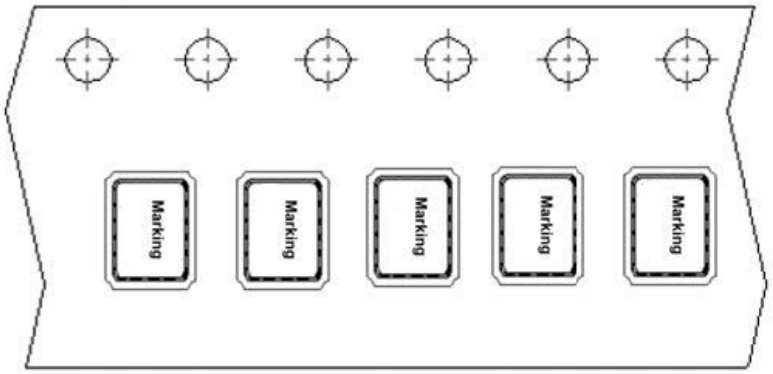


Recommended Land Pattern: (unit: mm)



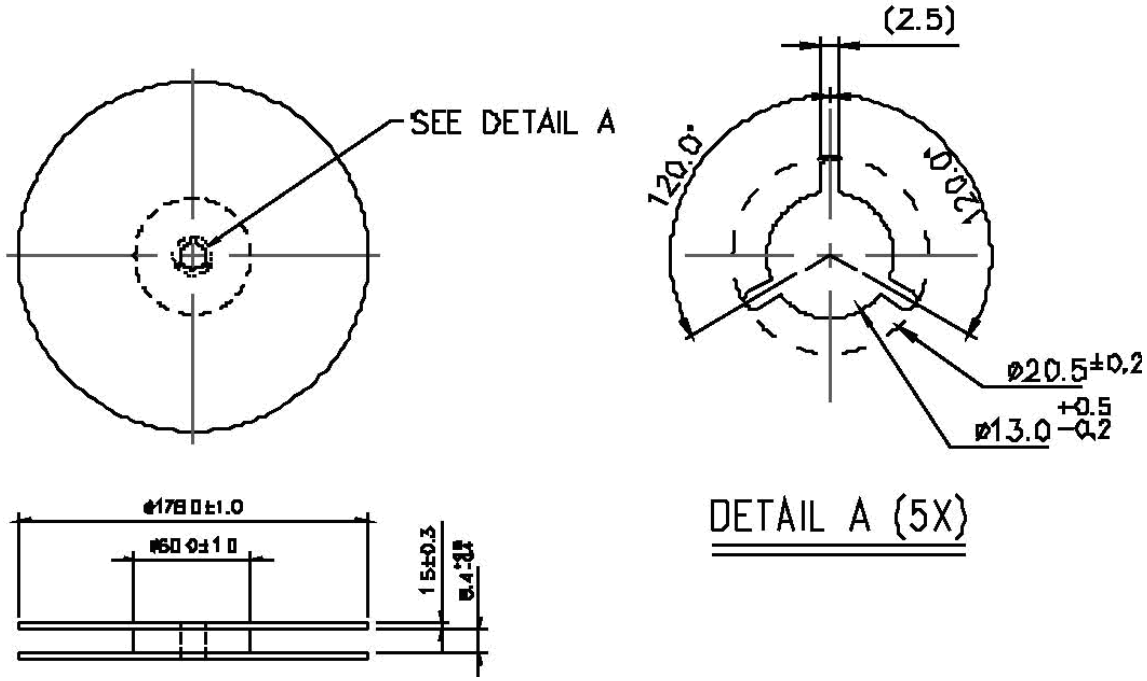
Marking:

Y = Year, WW = Week, S = Shift

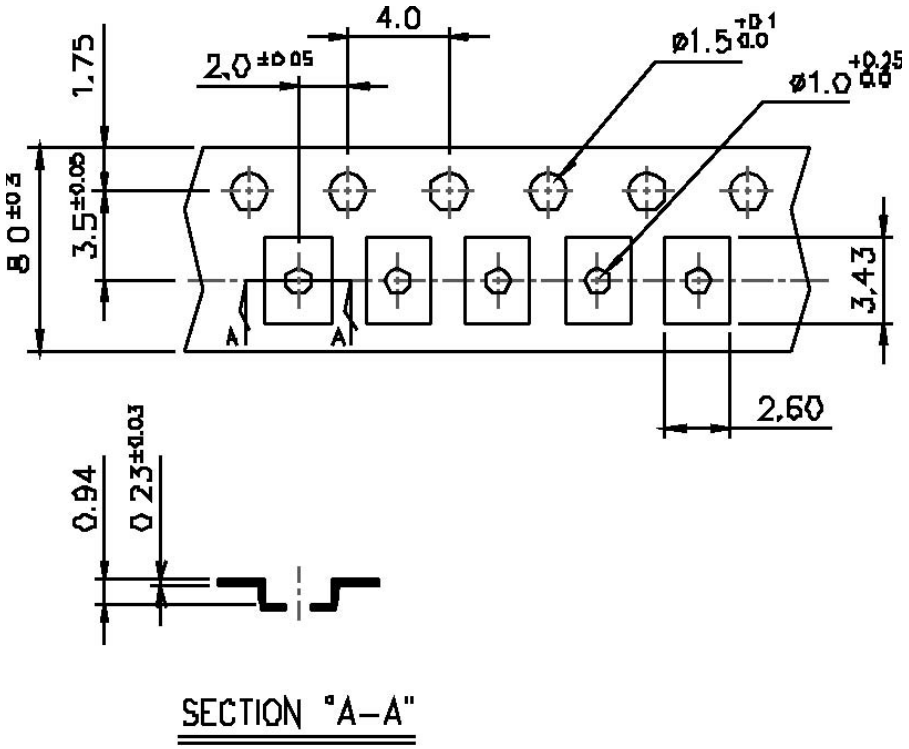


Reel Dimensions (mm):

Reel Count:
7' = 3000



Tape Dimensions (mm):



SECTION "A–A"

[NOTE]

1 UNIT : mm.

2 UNLESS OTHERWISE SPECIFIED TOLERANCEON DIM. +/-0.1mm.

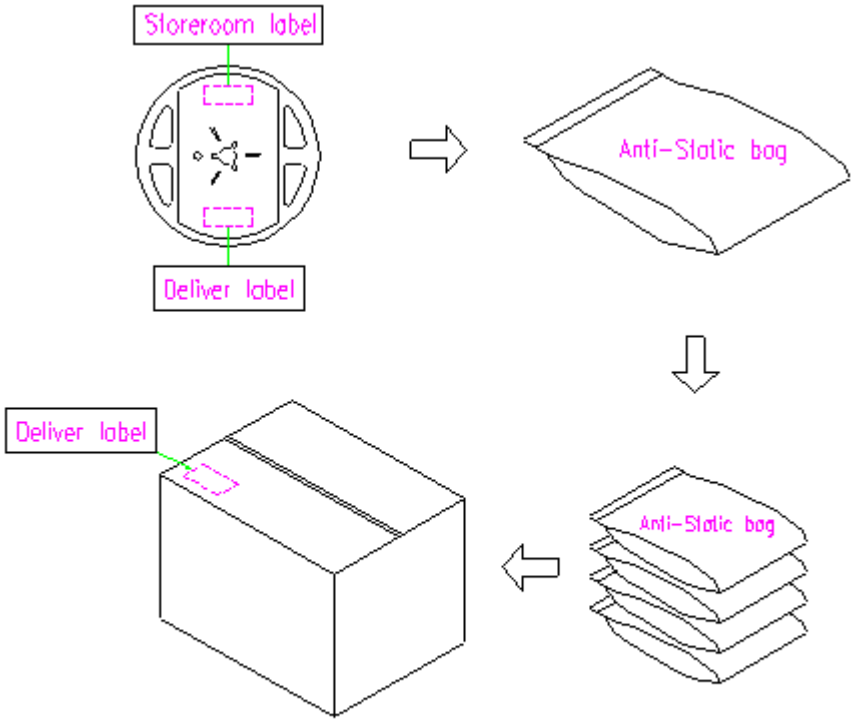
3 MATERIAL : CONDUCTIVE POLYSTYRENE.

4 COLOR : BLACK.

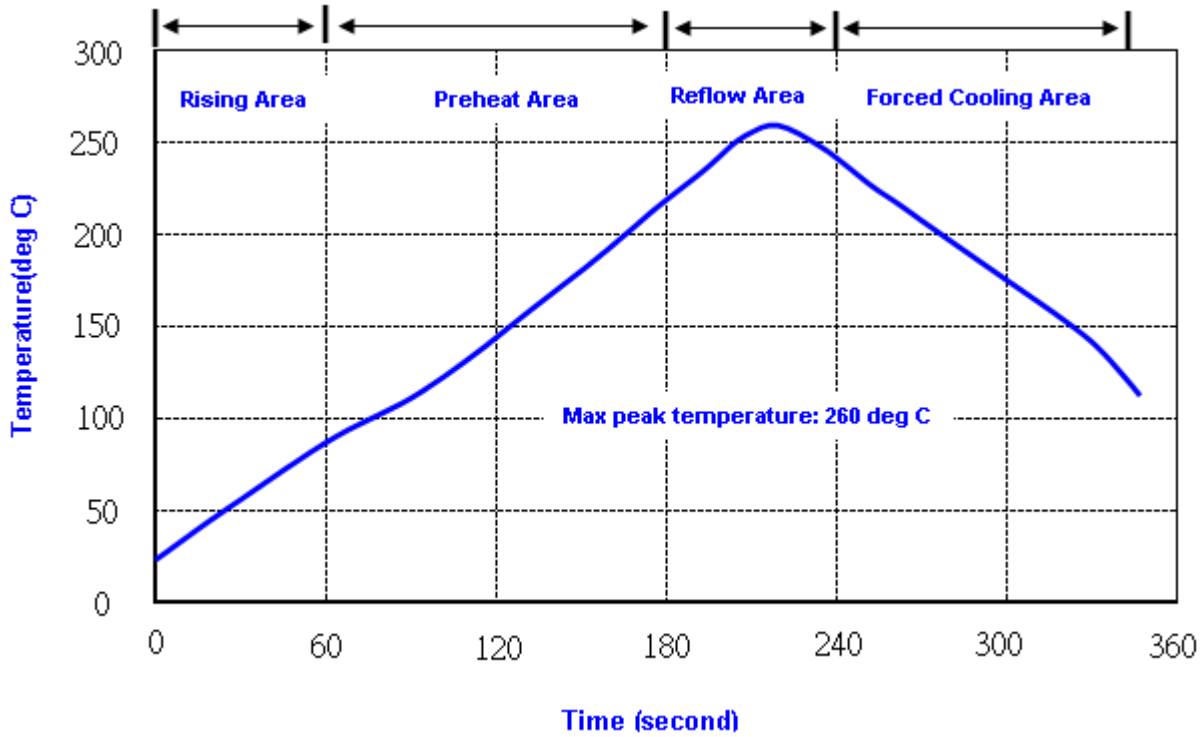
5 10 PITCHES CUMULATIVETOLERANCE +/-0.2mm.

Packing Quantity/Packing:

3K pcs maximum per reel



Reflow Profile:



Note: 1.Max peak temperature: 260+/-5 deg C; Time: 10+/-2 sec

2. Temperature: 217+/-5 deg C; Time: 90~100 sec

Reliability Specifications

Test name	Test process / method	Reference standard
Mechanical characteristics		
resistance to Soldering heat (IR reflow)	Temp./ Duration : 265°C /10sec ×2 times Total time : 4min.(IR-reflow)	EIAJED-4701 -300(301)M(II)
Vibration	Total peak amplitude : 1.5mm Vibration frequency : 10 to 2000 Hz : Sweep period 20 minute Vibration directions : 3 mutually perpendicular Duration : 2 hr / direc.	MIL-STD 202G method 204
Mechanical Shock	directions : 3 impacts per axis Acceleration : 3000g's, +20/-0 % Duration : 0.3 ms (total 18 shocks) Waveform : Half-sine	MIL-STD 202G method 213
Solderability	Solder Temperature:265±5°C Duration time: 5±0.5 seconds.	J-STD 202G method 213
Environmental characteristics		
Thermal Shock	Heat cycle conditions -40 ℃ (30min) ←→ 85℃ (30min) * cycle time : 10 times	MIL-STD 883G method 1010.8
Humidity test	Temperature : 85 ± 2 °C Relative humidity : 85% Duration : 96 hours	MIL-STD 202G method 103
Dry heat (Aging test)	Temperature : 125 ± 2 °C Duration : 168 hours	MIL-STD 202G method 108A
Cold resistance	Temperature : -40 ± 2 °C Duration : 96 hours	IEC 60068-2-1

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.