

# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

TEL: 886-3-4690038 FAX: 886-3-4697532

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## Product Specifications Approval Sheet

Product Description: Crystal Unit 3.2x1.5 32.768KHz

TST Part No.: TZ1510A

Customer Part No.: \_\_\_\_\_

Customer signature required
Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: \_\_\_\_\_ Ginger Huang *Ginger Huang*

Approved by: \_\_\_\_\_ Kelly Huang *Kelly Huang*

Date: \_\_\_\_\_ 06/08/2010

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes.



**TAI-SAW TECHNOLOGY CO., LTD.**  
**3.2x1.5 32.768KHz Crystal Unit**

MODEL NO.: TZ1510A

REV. NO.: 1.0

**Revise:**

Rev.	Rev. Page	Rev. Account	Date	Ref. No.	Reviser
1	N/A	Initial release	06/08/10'	N/A	Ginger Huang



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## SMD 3.2x1.5 32.768KHz Crystal Unit

MODEL NO.: TZ1510A

REV. NO.: 1.0

### Features:

- Ceramic Seam Weld Package
- Excellent Reliability Performance
- Ultra Miniature Package
- Available to Surface Mount Technology and IR Reflow Process

RoHS Compliant  
Lead free  
Lead-free soldering

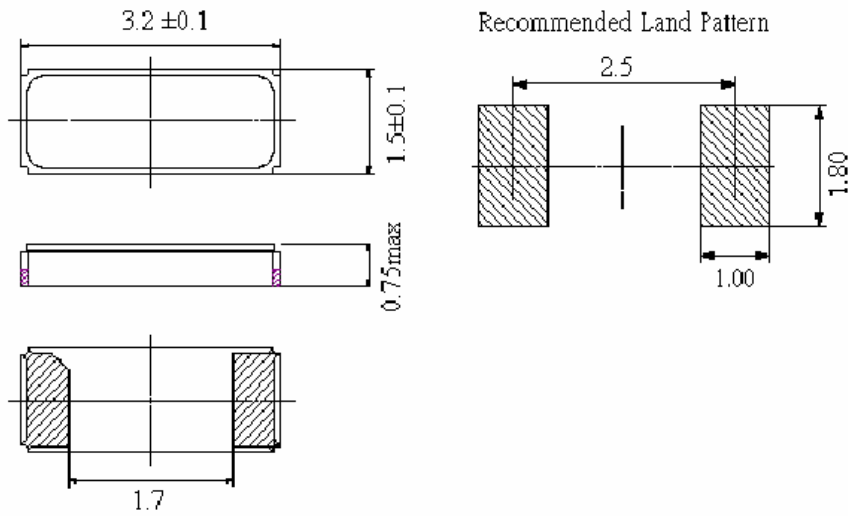
### Description and Applications:

Surface mount 3.2mmx1.5mm crystal unit for use in communications devices,.

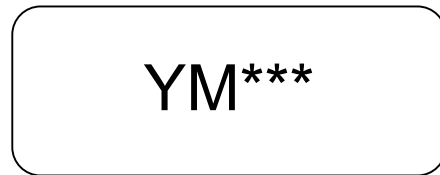
### Electrical Specifications:

TZ1510A	Specification
Nominal Frequency	32.768 KHz
Operating Temperature Range	-40°C to +85°C
Turnover Temperature	25 +/- 5 °C
Parabolic Curvature Constant	-0.027 ppm / °C <sup>2</sup> max.
Frequency Make Tolerance (FL)	+/-20 ppm @ 25°C +/- 2°C
Equivalent Series Resistor (ESR)	80 kΩ max.
Drive Level	1.0 uW max.
Load Capacitance (CL)	9 pF
Aging	+/-3.0 ppm/year @25°C
Marking	Laser marking
Insulation Resistance	500M Ω min at DC 100V

## Mechanical Dimensions (mm):



## Marking:



Month	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Seo	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	x	y	z

## Reflow Profile:

