

### 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 4.9x1.8 32	.768KHz	
TST Part No.: TZ169	92A		
Customer Part No.:_		<del></del>	
Customer signature i	equired		
Company:			- i
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Approved by :	· · · · · · · · · · · · · · · · · · ·		-
Date:		· · · · · · · · · · · · · · · · · · ·	
Checked by:	Ginger Huang	Ginger (-	-luang
Approved by:		Kerly	thing
Date:	12/27/2010		

- Customer signed back is required before TST can proceed with sample build and receive orders.
- 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. 4.9mm x 1.8mm 32.768KHz Crystal Unit

MODEL NO.: TZ1692A REV. NO.: 2.0

#### Revise:

Rev.	Rev. Page	Rev. Account	Date	Ref. No.	Reviser
1	N/A	Initial release	10/06/10°	N/A	Ginger Huang
2	P4	Marking Change	12/27/10'	1.0	Ginger Huang



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#### 4.9x1.8 32.768kHz Crystal Unit

MODEL NO.: TZ1692A REV. NO.: 2.0

#### Features:

SMD Type Package

Excellent Reliability Performance



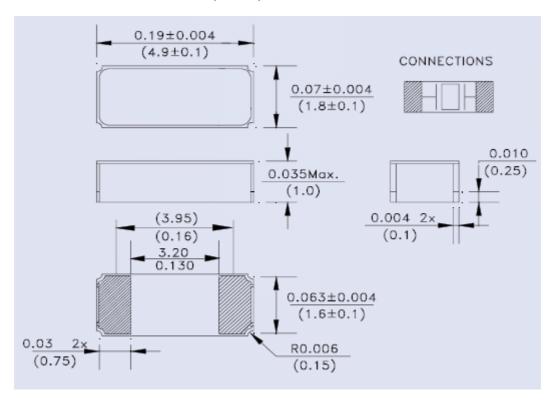
## **Description and Applications:**

SMD type 4.9x1.8 mm crystal unit for use in wireless telecommunications devices.

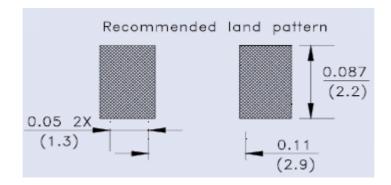
## **Electrical Specifications:**

TZ1692A	Specification				
Nominal Frequency	32.768000 kHz				
Mode of Oscillation	Fundamental				
Storage Temperature Range	-55°C to +125°C				
Operating Temperature Range	-40°C to +85°C				
Frequency vs. Temperature	-0.034 +/-0.006ppm/C <sup>2</sup>				
Turnover temperature	25 +/-5°C				
Frequency Make Tolerance (FL)	+/-20 ppm @ 25°C +/- 3°C				
Equivalent Series Resistance (ESR)	70k $\Omega$ max				
Shunt Capacitance (Co)	1.0pF typ.				
Motional Capacitance (C1)	2.0fF typ.				
Nominal Drive Level	1.0 uW max				
Load Capacitance (CL)	12.5 pF				
Aging	+/-5.0 ppm/year @25°C				
Insulation Resistance	500 MΩ min./DC 100V				
Marking	Inerasable marking				

## Mechanical Dimensions (mm):



## Recommended Solder Pad Layout



#### Marking:

 $Line1: C+Y \ (\ Year\ code: 9\ for\ 2009\ )+M\ (Month\ Code)+ \\ Traceability\ Code(XXX)$ 



#### Month Code Table:

Month	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Seo	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	X	Υ	Ζ

## Tape & Reel

