



# TAI-SAW TECHNOLOGY CO., LTD.

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

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## Approval Sheet For Product Specification

Product Name: SAW Filter 173.91MHz SMD 5.0x7.0mm

TST Parts No.:TB0835A

Customer Parts No.: \_\_\_\_\_

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

Checked by: \_\_\_\_\_ Andy Yu *Andy*

Approval by: \_\_\_\_\_ Francis Chen *[Signature]*

Date: \_\_\_\_\_ 01/27/2010

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



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SAW Filter 173.91 MHz(BW=20.0MHz) SMD 5.0mmX7.0mm

MODEL NO.: TB0835A

REV.1.0

## A. MAXIMUM RATING:

1. Operating Temperature: -20 °C ~ +70 °C
2. Storage Temperature: -40 °C ~ +85 °C
3. Input power: 10dBm

RoHS Compliant  
Lead free  
Lead-free soldering

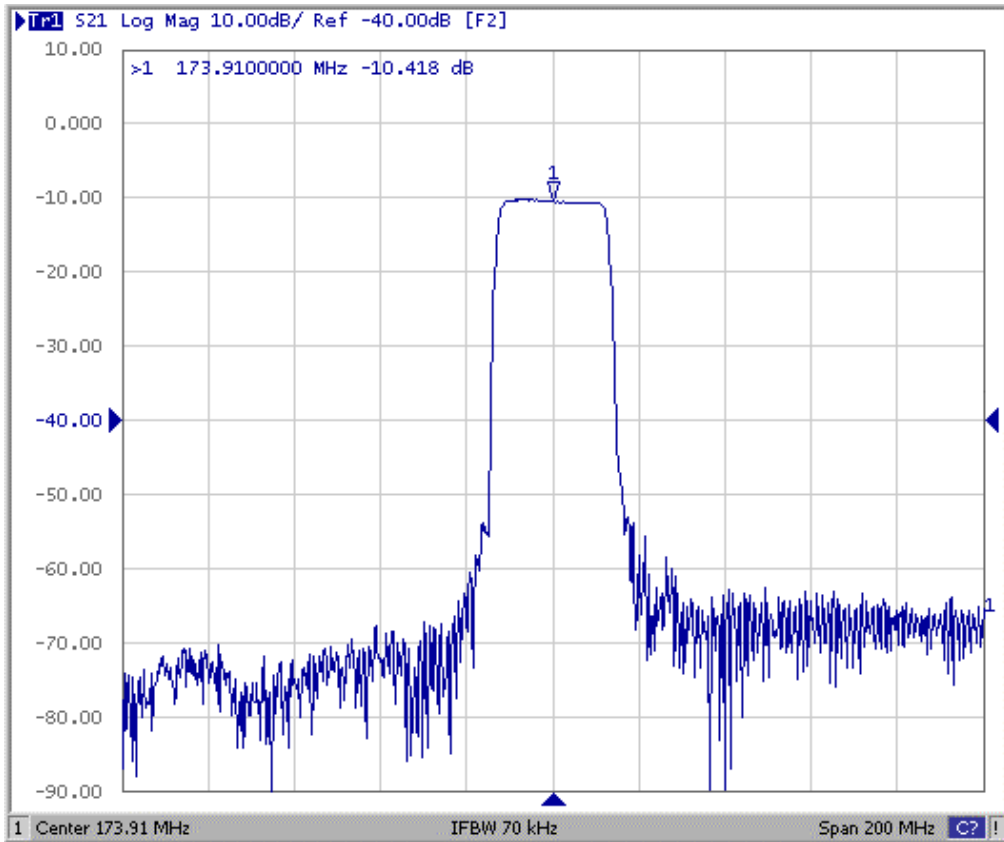
## B. Characteristics :

Ambient Temperature: 25 °C

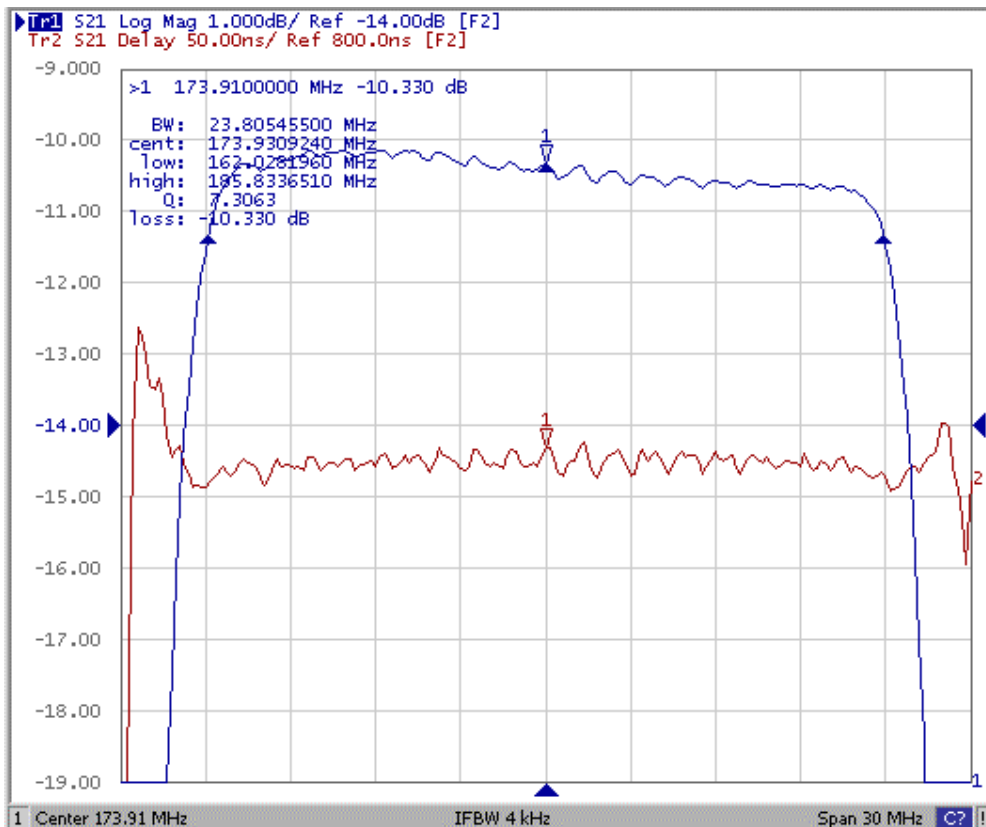
Characteristics	Value			Note
	Min.	Typ.	Max.	
<b>Center frequency</b> $F_c$ MHz	-	173.910	-	-
<b>Minimum Insertion loss</b> I.L. dB	-	10.0	13	-
<b>1dB BW</b> MHz	-	23.8	-	-
<b>Passband Ripple (<math>F_c \pm 10\text{MH}</math>)</b> dB	-	0.6	1.5	-
<b>Attenuation</b> (Reference to Minimum Insertion loss)				
<b>100 ~ 153.91MHz</b> dB	45	53	-	-
<b>208.91 ~ 350MHz</b> dB	40	48	-	-
Temp Coefficient ppm/K	-	-94	-	-
<b>Matching:</b>				
1.The input of the filter will be matched to <u>50 ohm</u>				
2.The output of the filter will be matched to <u>50 ohm</u>				

### C. FREQUENCY CHARACTERISTICS :

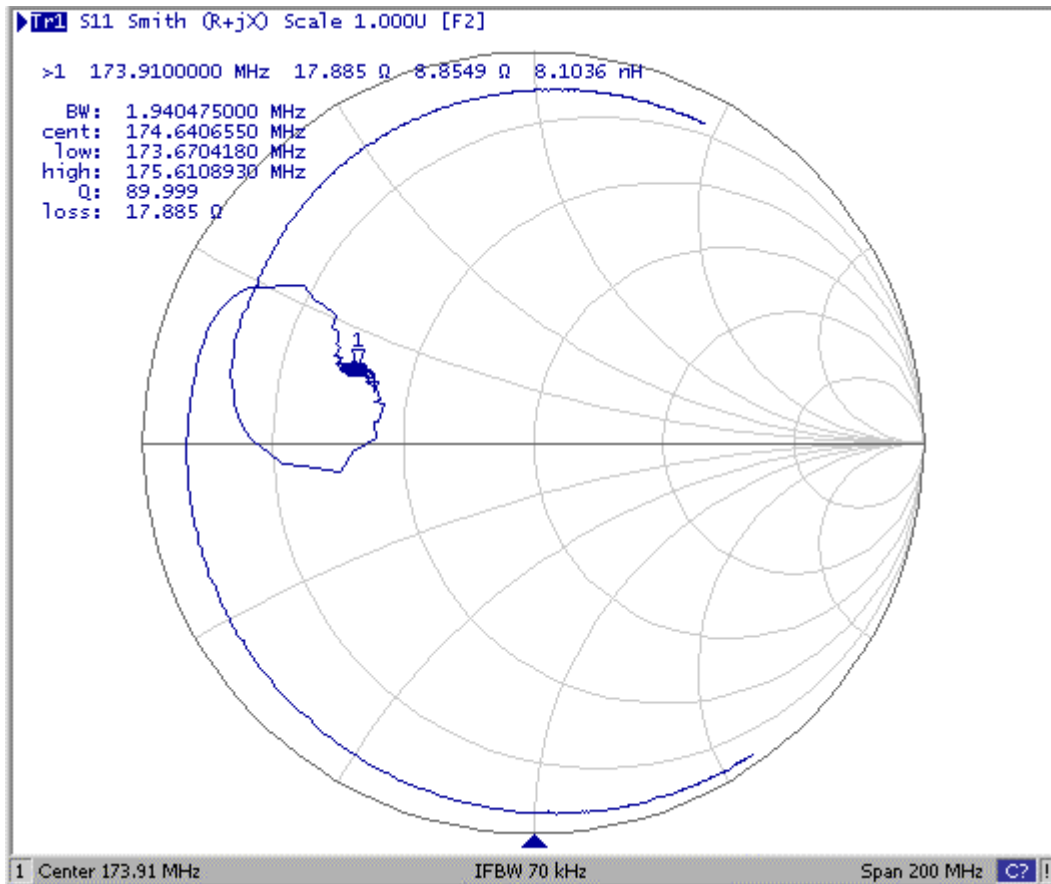
#### 1.S21 Response: (span : 200MHz)



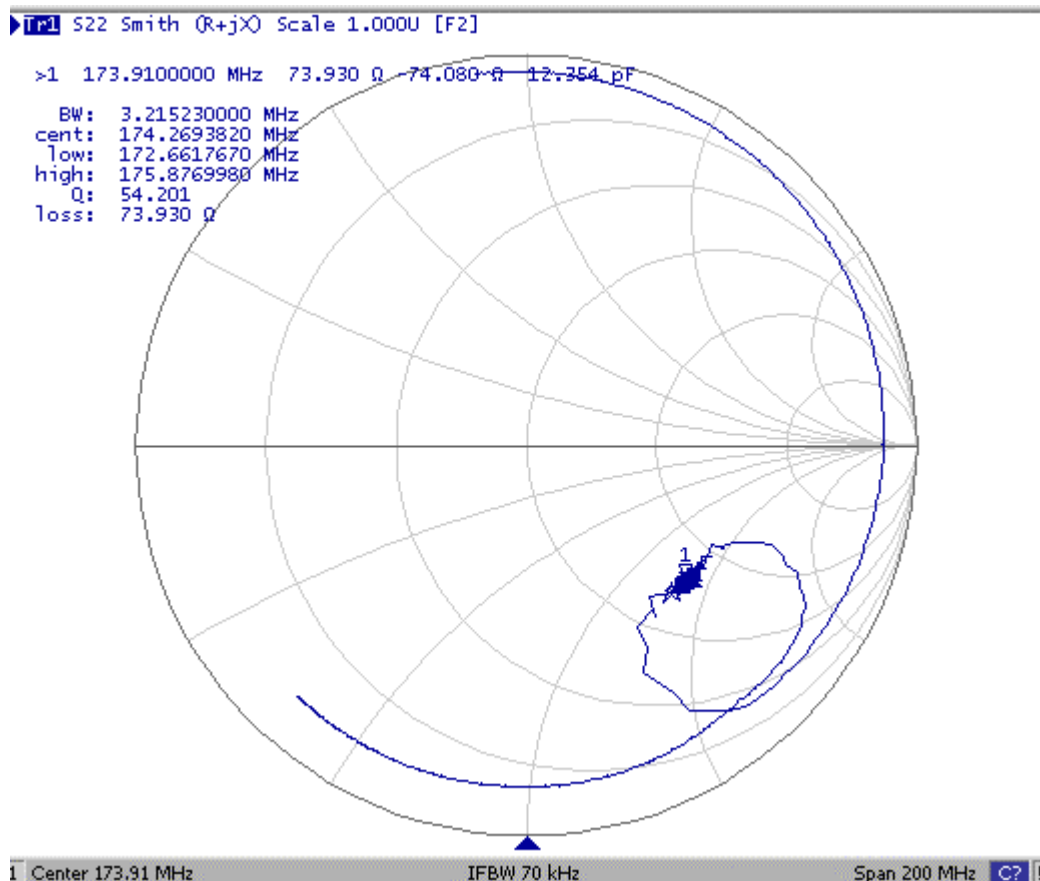
#### 2. Group-Delay Ripple: (span : 30MHz)



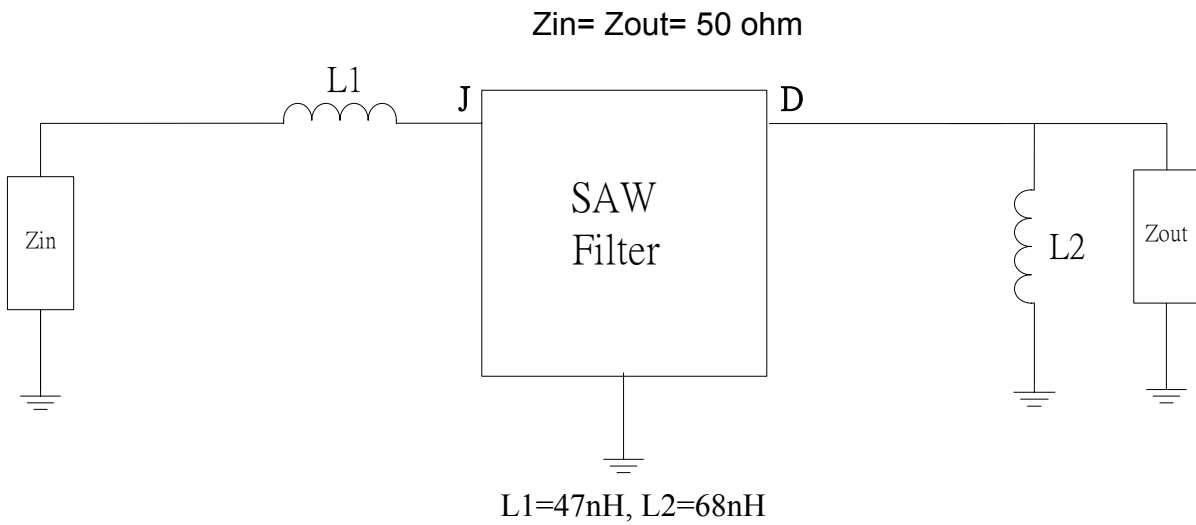
### 3. S11 Smith Chart: (span : 200MHz)



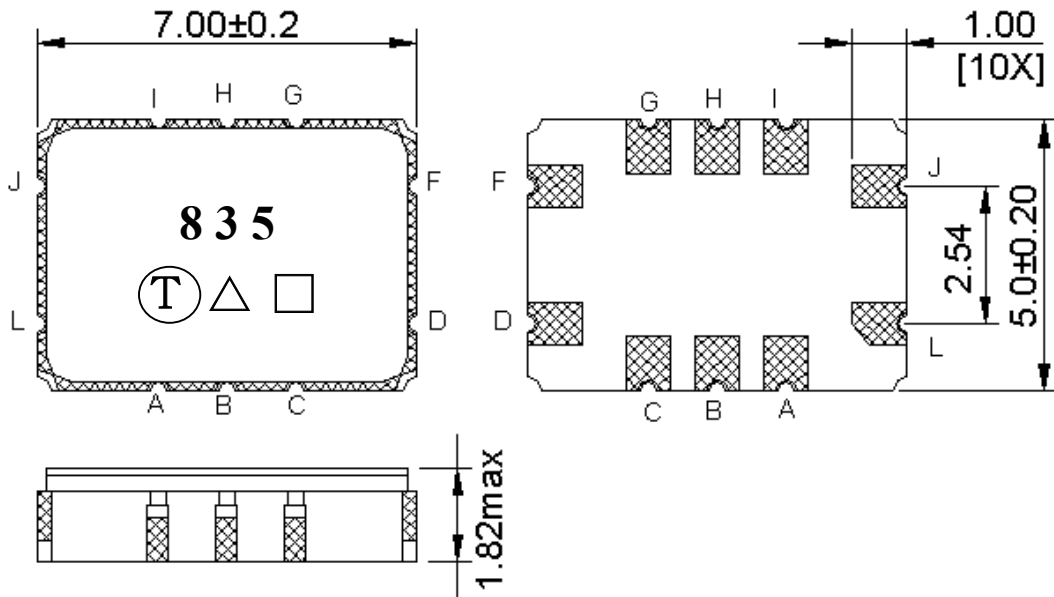
### 4. S22 Smith Chart (span : 200MHz)



E. MEASUREMENT CIRCUIT



F. OUTLINE DRAWING:



Pin J: input

Pin D: output

Pin A, B, C, F, G, H, I, L: To be Ground

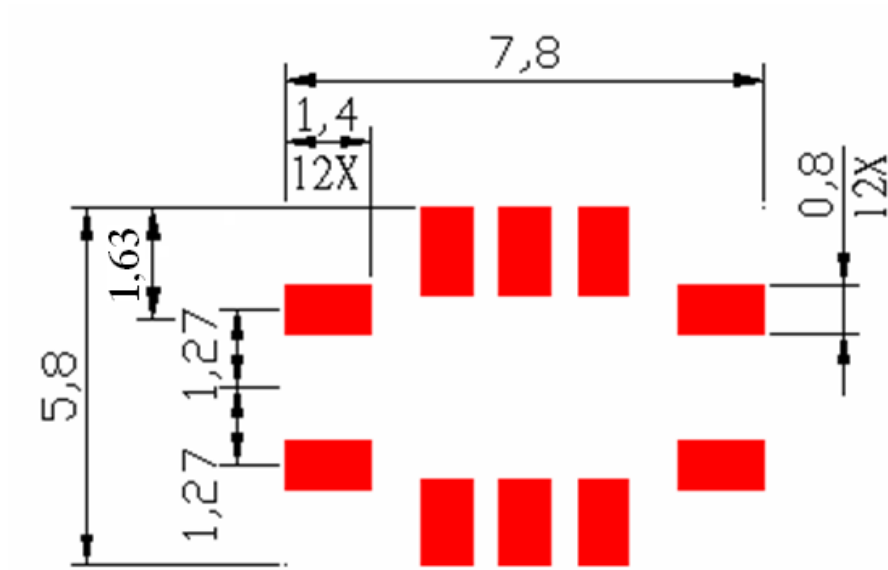
□ : Week Code (Follow the table from planner each year)

Unit : mm (week01, 02, 03...52 =>A, B, C...z)

△ : Product / Year Code

Year	2005 2009	2006 2010	2007 2011	2008 2012
Product Code	B	b	<u>B</u>	<u>b</u>

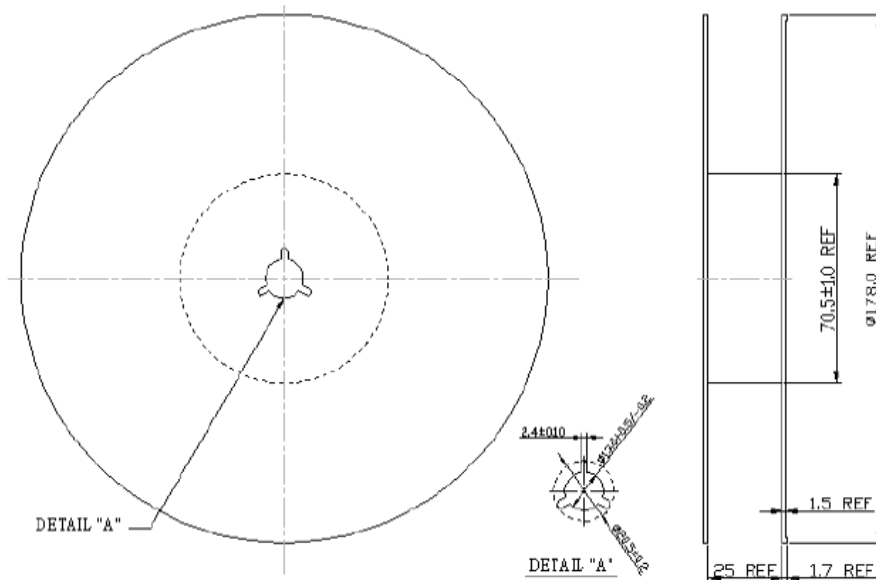
### G. PCB Footprint



Unit: mm

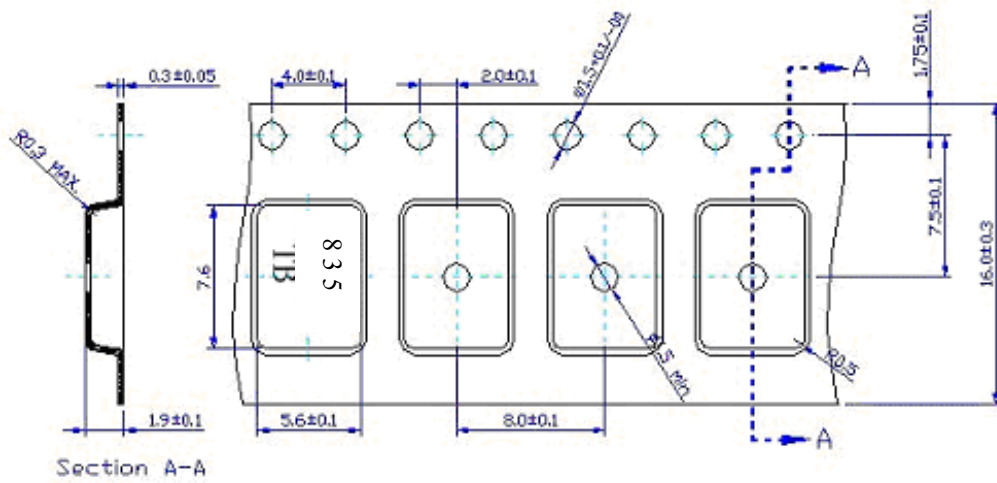
### H. PACKING:

#### 1. REEL DIMENSION



Unit: mm

## 2. TAPE DIMENSION



Unit: mm

## I. RECOMMENDED REFLOW PROFILE :

