



TAI-SAW TECHNOLOGY CO., LTD.

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Approval Sheet For Product Specification

Product Name: SAW Filter 209.715MHz SMD 5.0×7.0mm

TST Parts No.:TB0836A

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 209.715 MHz(BW=30.0MHz) SMD 5.0mmX7.0mm

MODEL NO.: TB0836A

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

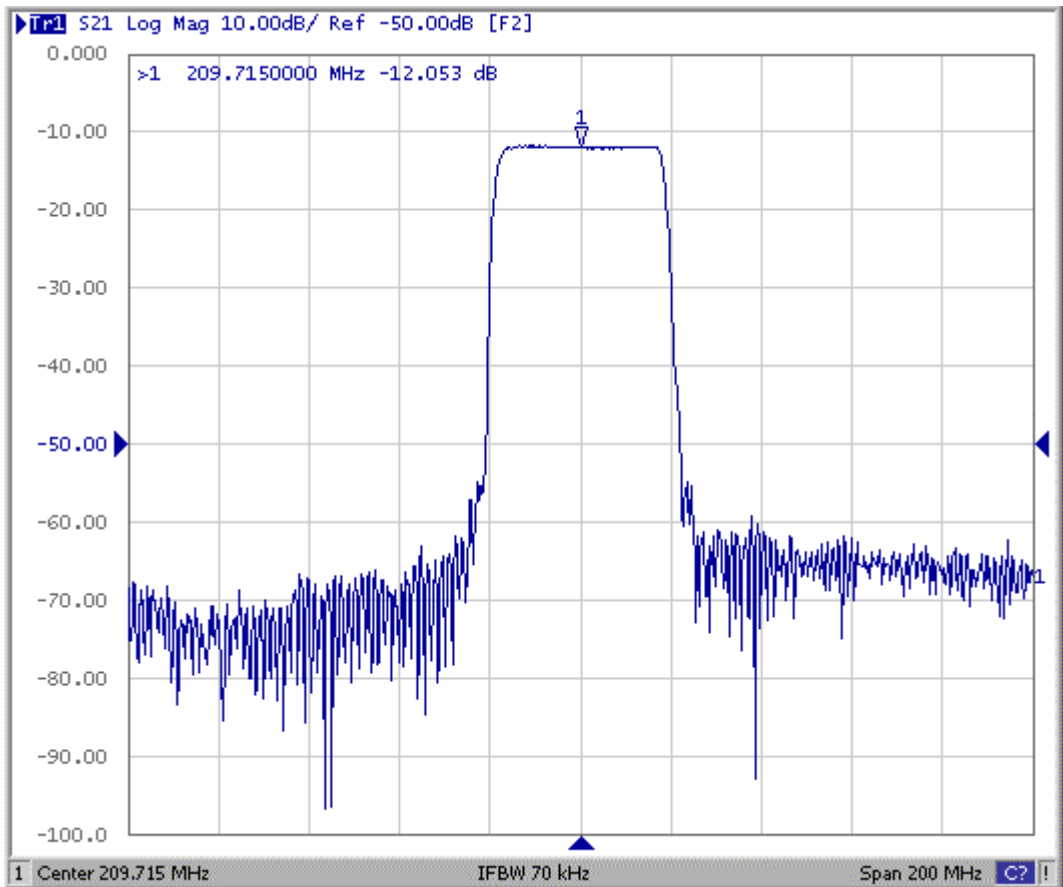
B. Characteristics :

Ambient Temperature: 25 °C

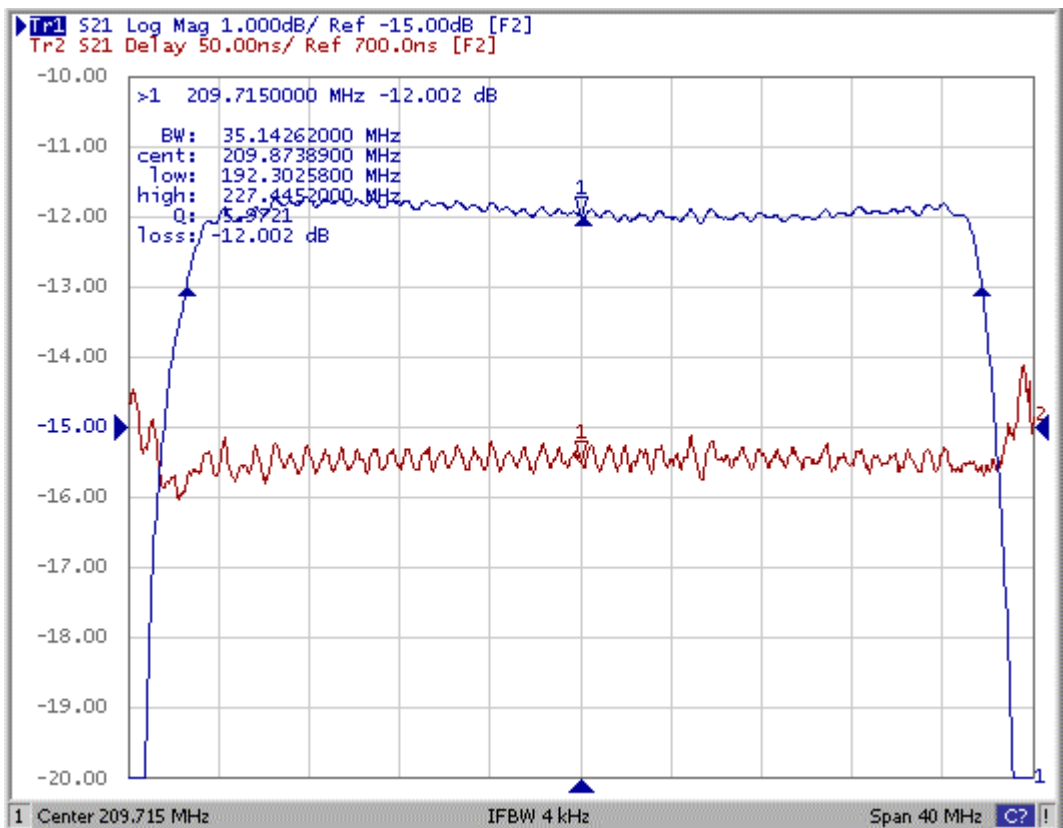
Characteristics	Value			Note
	Min.	Typ.	Max.	
Center frequency F_c MHz	-	209.715	-	-
Minimum Insertion loss I.L. dB	-	11.8	13	-
1dB BW MHz	-	34.9	-	
3dB BW MHz	-	36.6	-	
35dB BW MHz	-	42.6	-	
Passband Ripple ($F_c \pm 15\text{MH}$) dB	-	0.4	1.0	-
Attenuation (Reference to Minimum Insertion loss)				
10 ~ 130MHz dB	45	56	-	-
130 ~ 179MHz dB	40	52	-	-
239 ~ 269MHz dB	40	47	-	
269 ~ 284MHz dB	45	51	-	
284 ~ 1000MHz dB	40	45	-	
Temp Coefficient ppm/K	-	-94	-	-
Matching:				
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 :

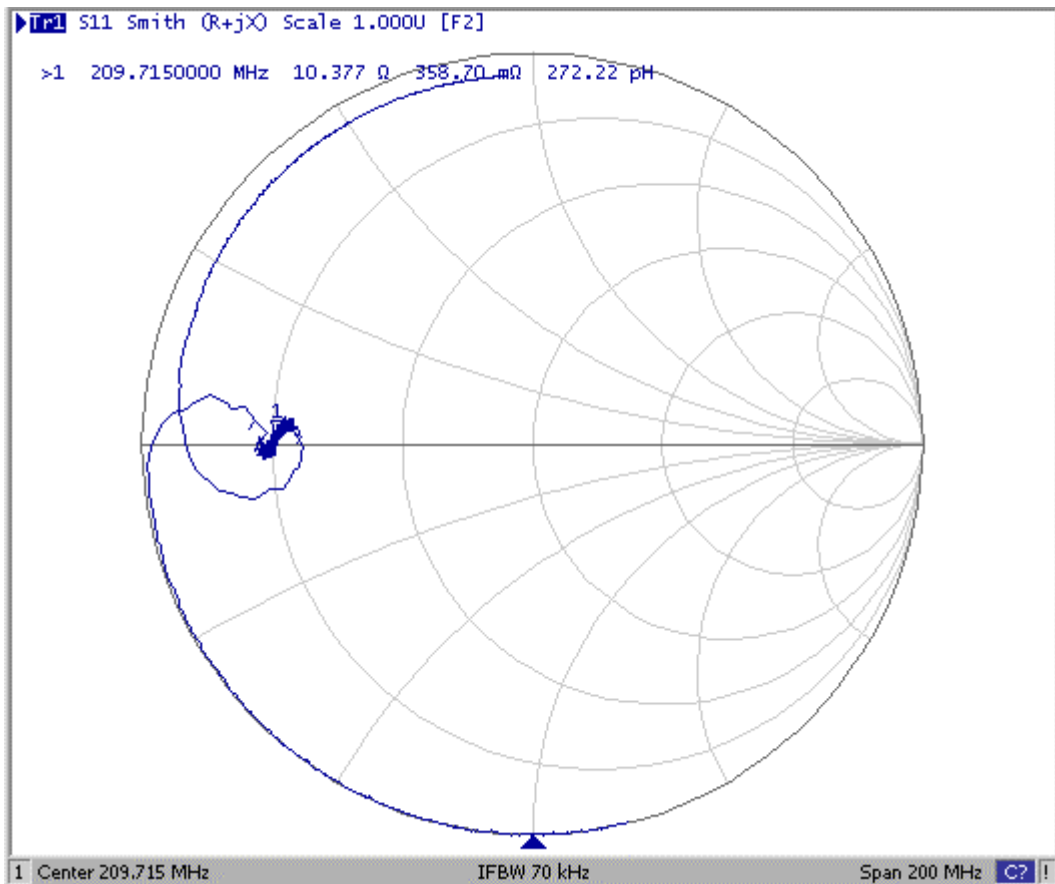
1.S21 Response: (span : 200MHz)



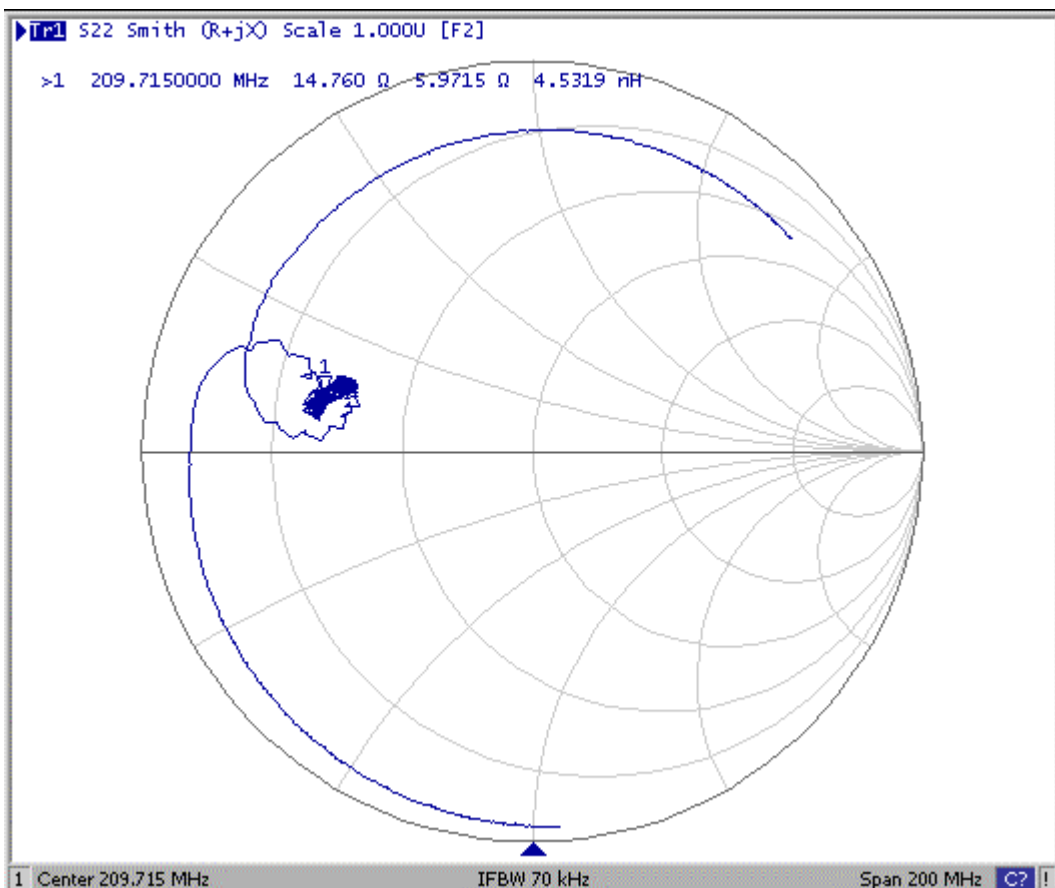
2. Group-Delay Ripple: (span : 40MHz)



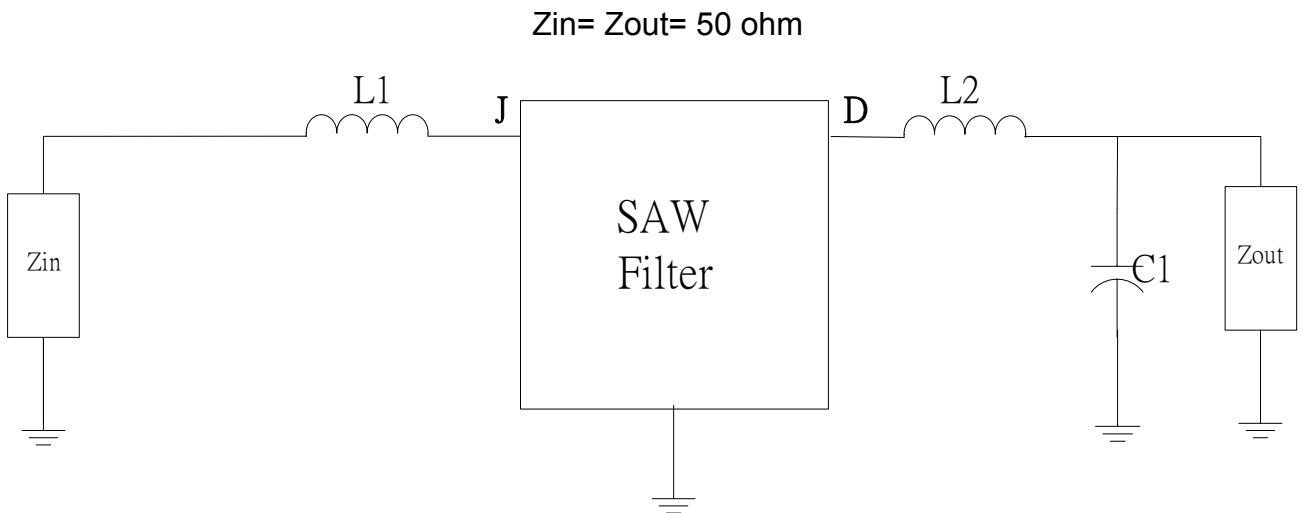
3. S11 Smith Chart: (span : 200MHz)



4. S22 Smith Chart (span : 200MHz)



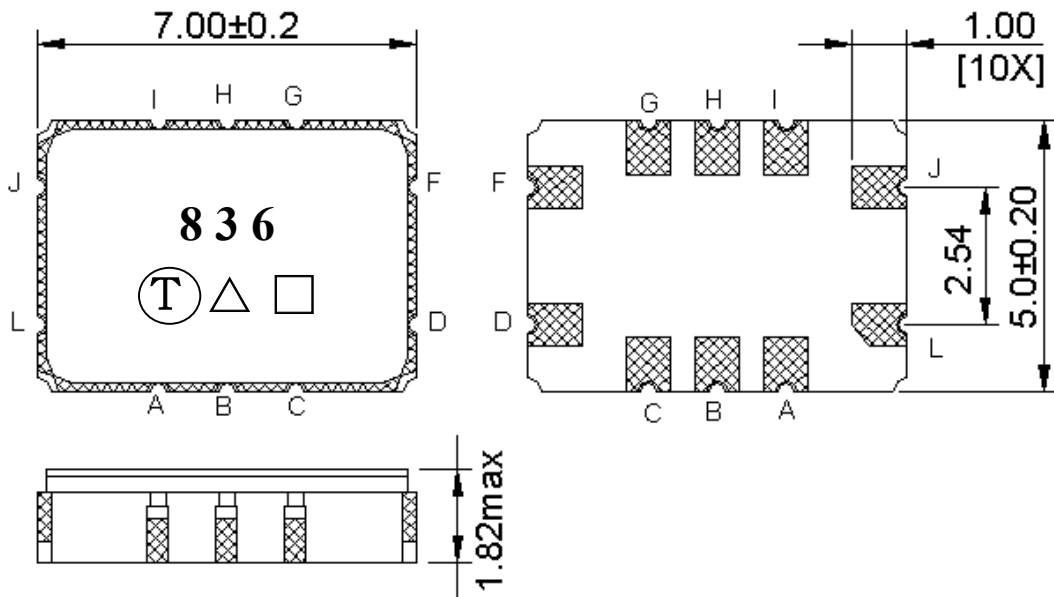
E. MEASUREMENT CIRCUIT



$Z_{in} = Z_{out} = 50 \text{ ohm}$

$L1 = 33 \text{ nH}, L2 = 33 \text{ nH}, C1 = 4.7 \text{ pF}$

F. OUTLINE DRAWING:



Pin J: input

Pin D: output

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

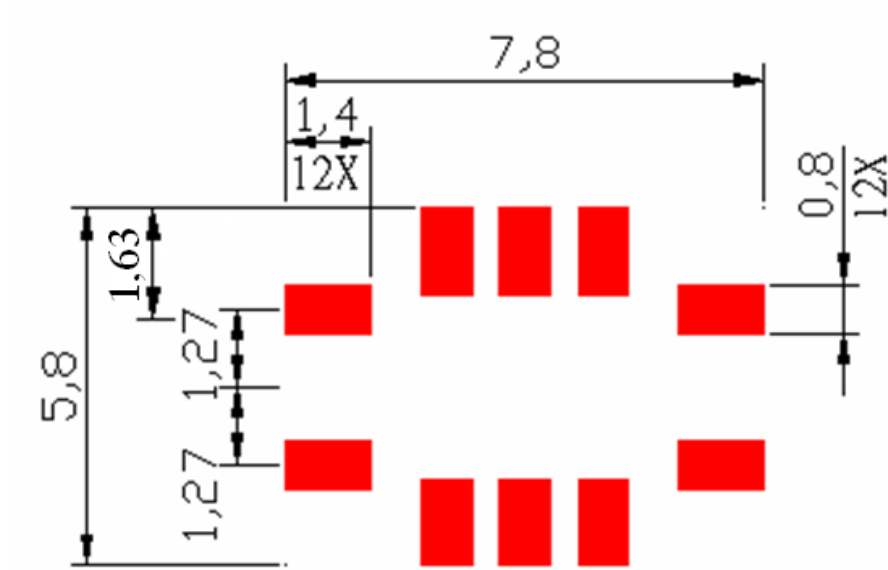
□ : Week Code (Follow the table from planner each year)

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>

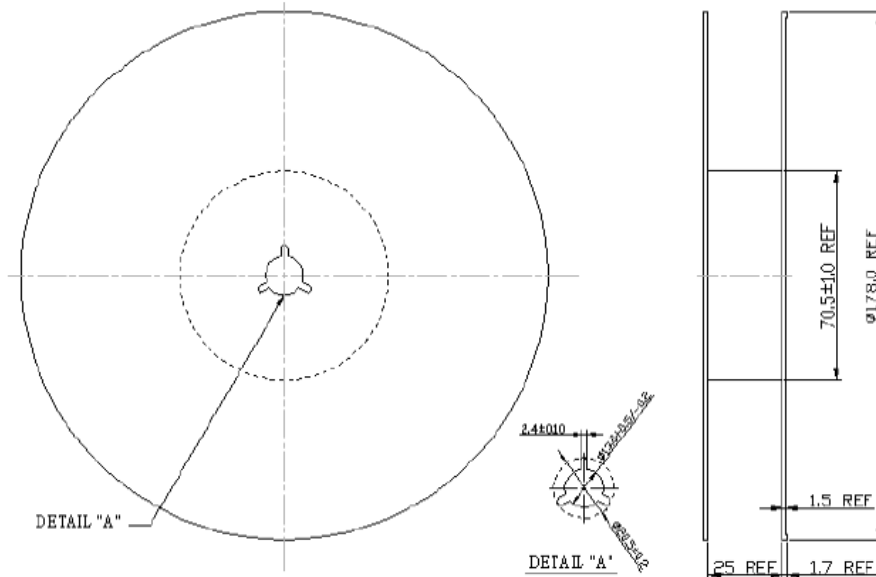
G. PCB Footprint



Unit: mm

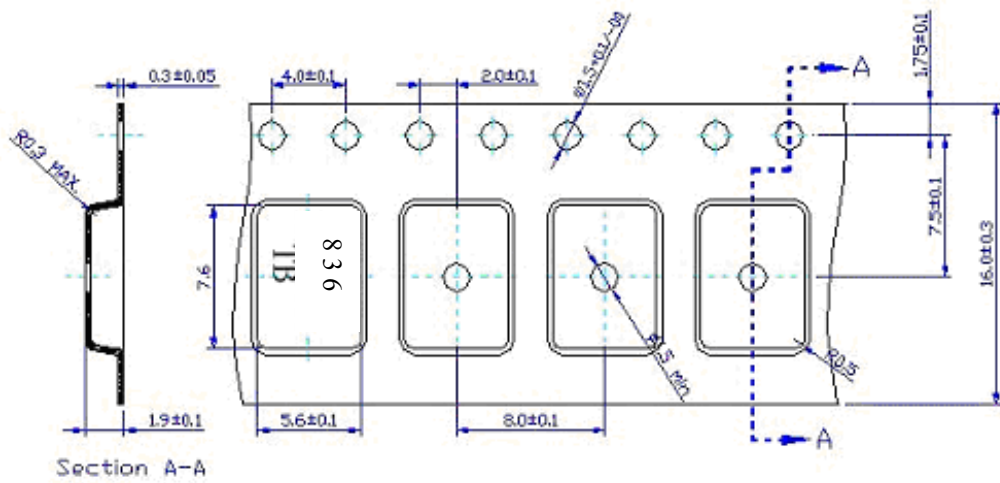
H. PACKING:

1. REEL DIMENSION



Unit: mm

2. TAPE DIMENSION



Unit: mm

I. RECOMMENDED REFLOW PROFILE :

