



SAW TECHNOLOGY CO., LTD.

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Approval Sheet For Product Specification

Issued Date:

Product Name: SAW Filter 70MHz SMD 13.3x6.5mm

TST Parts No.: TB0185A

Customer Parts No.: _____

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Ricky Lee

Approval by: _____ Francis Chen

Date: _____ 2009/02/24



TAI-SAW TECHNOLOGY CO., LTD.

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IF SAW Filter 70MHz(BW=7MHz) SMD 13.3X6.5mm

MODEL NO.: TB0185A

REV.2.0

A. MAXIMUM RATING:

1. Operating Temperature: 0 °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

Parameter	Unit	Min.	Typ.	Max.
Center frequency, Fc	MHz	69.8	70	70.2
Insertion Loss, IL	dB	-	21	23
1 dB Bandwidth	MHz	7.0	7.3	-
3 dB Bandwidth	MHz	7.3	7.9	-
40 dB Bandwidth	MHz	-	10.2	10.75
Amplitude ripple (within ±2.8MHz)	dB	-	0.8	1
Phase Linearity (within ±2.92MHz) (rms)	deg	-	2.5	6
Group Delay ripple (within ±2.92MHz)	nsec	-	50	100
Absolute Delay	μsec	-	1.02	-
Attenuation (Reference level from 0 dB)				
10 ~ 64MHz	dB	55	60	-
76~140MHz	dB	55	60	-
Substrate Material	-	-	LT	-
Temperature Coefficient	ppm/ °C	-	-18	-
Ambient Temperature	°C	-	25	-

C. Frequency Characteristics :

1. S21 Response: (span : 50MHz)

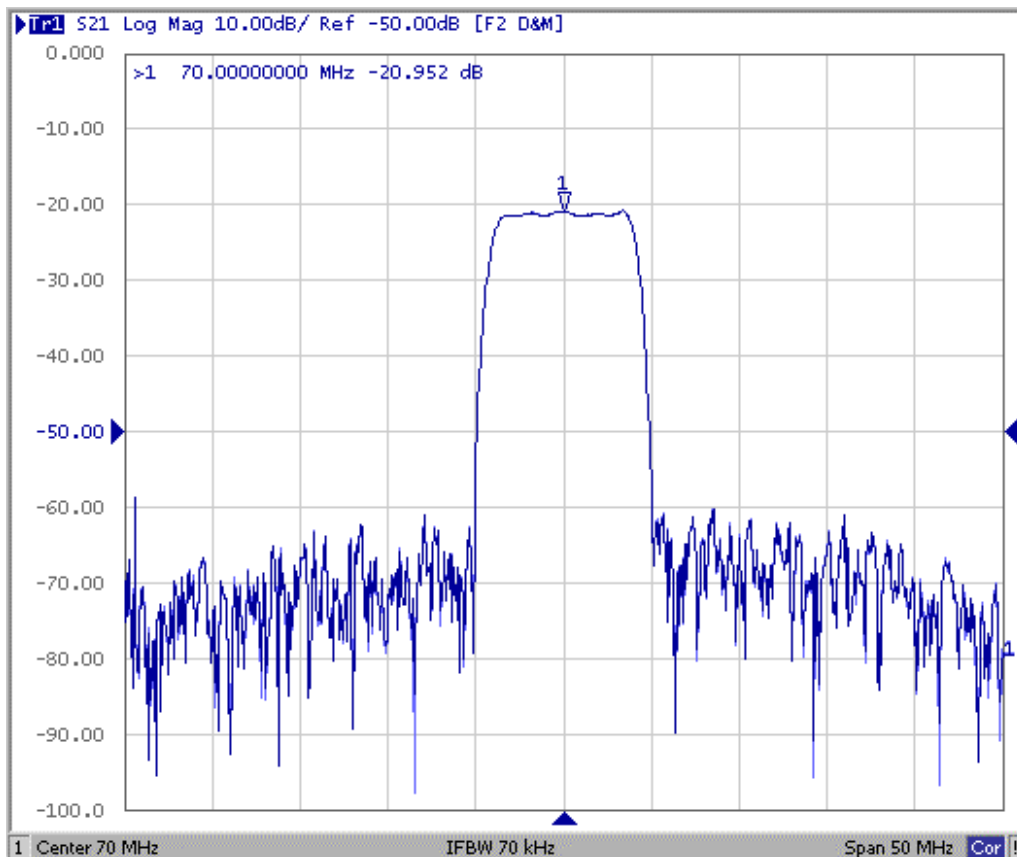


Fig1. Horizontal: 5MHz/Div Vertical: 10dB/Div

2. Group-Delay Ripple: (span : 15MHz)

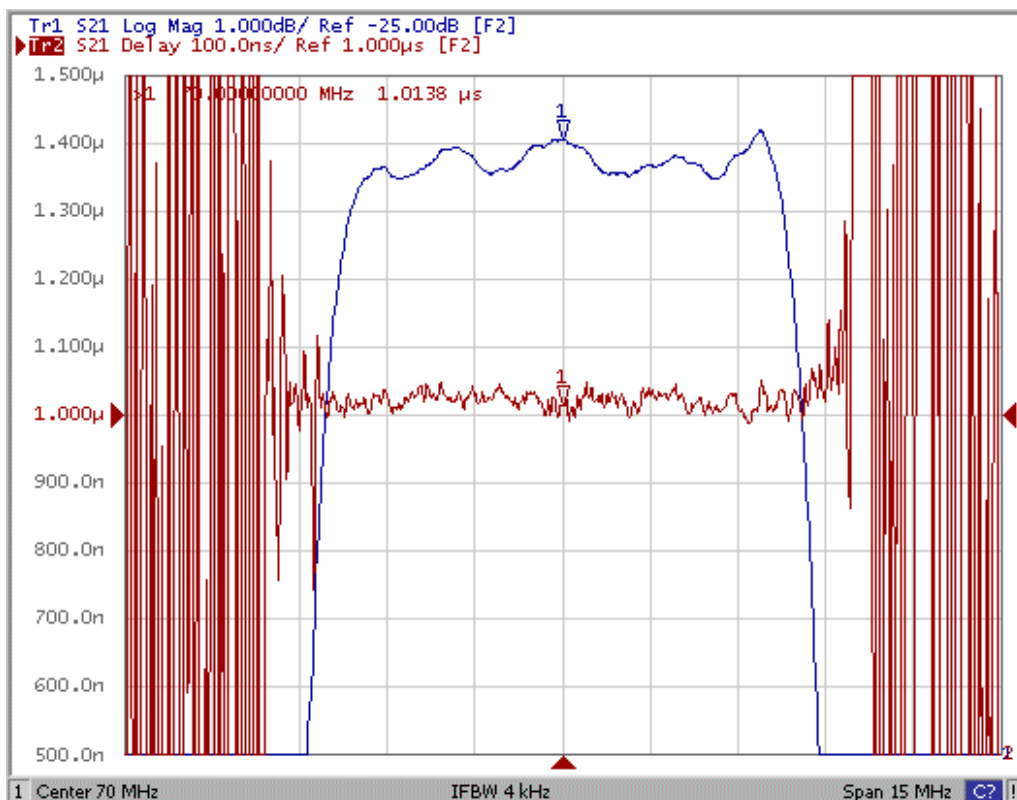
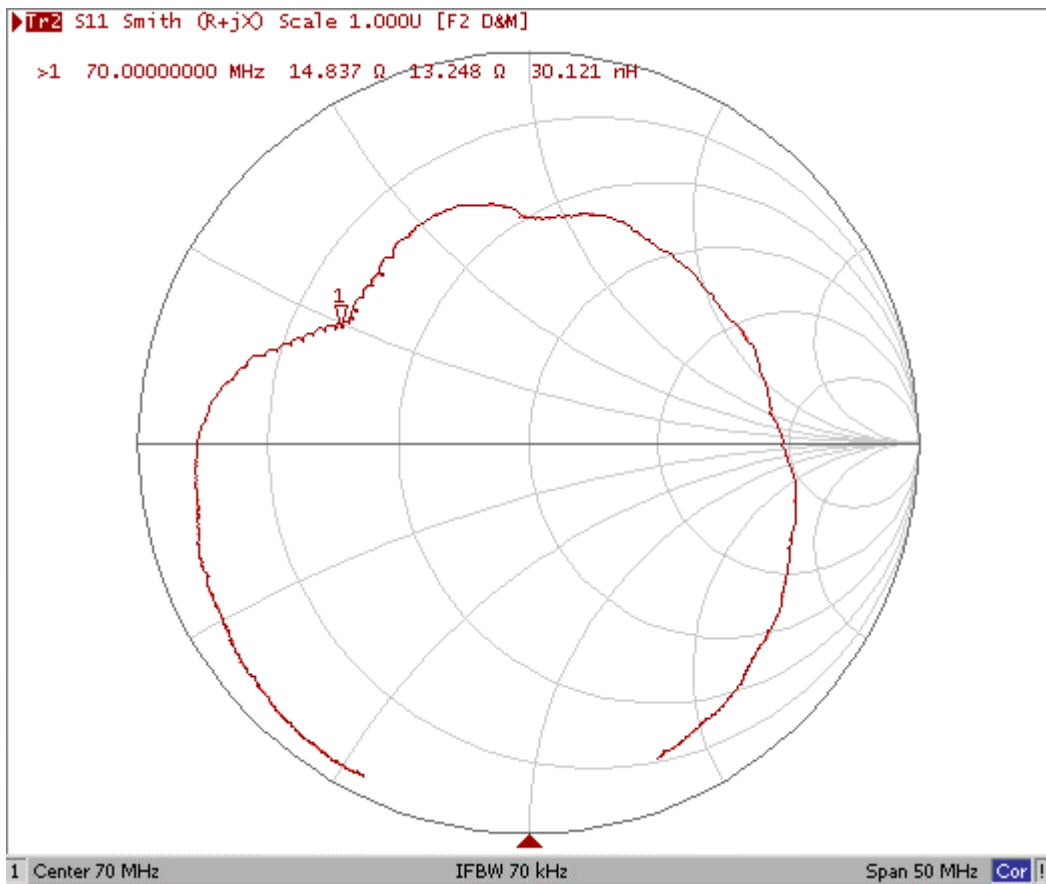
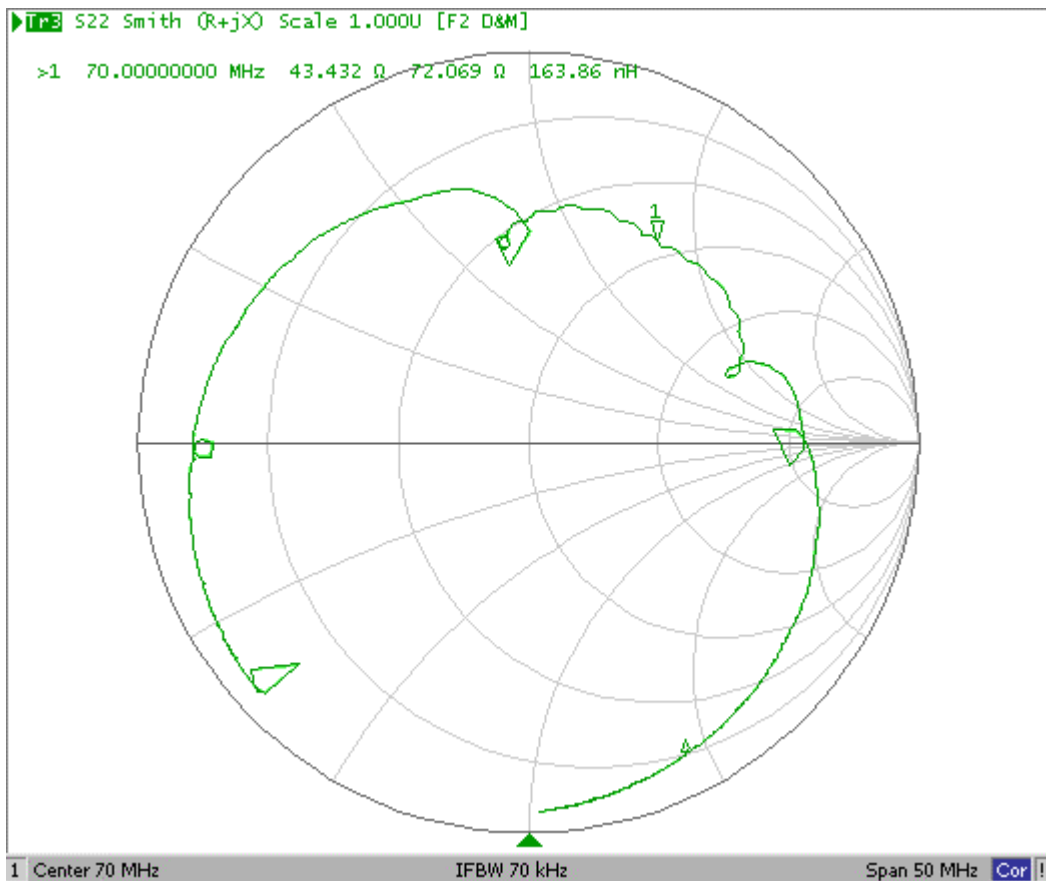


Fig2. Horizontal: 1.5MHz/Div Vertical: 100nec/Div

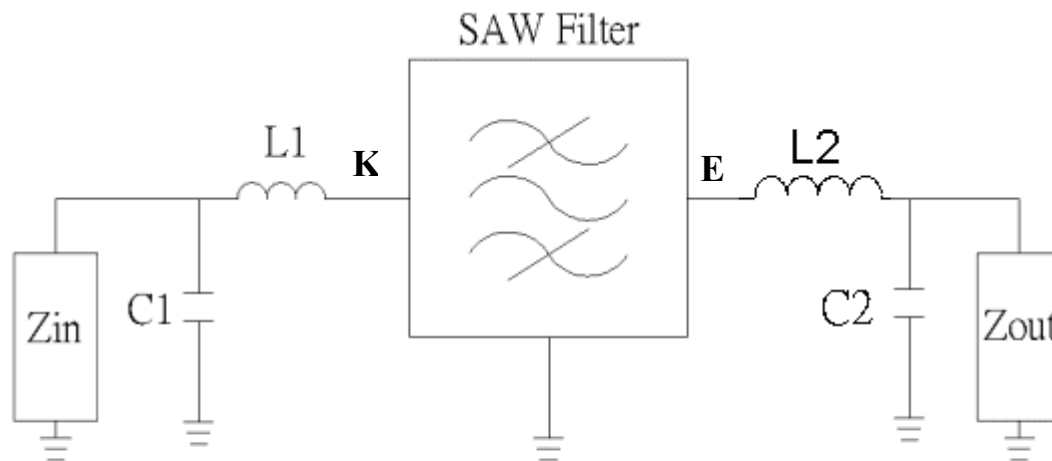
3. S11 Smith Chart: (span : 50MHz)



4. S22 Smith Chart (span : 50MHz)



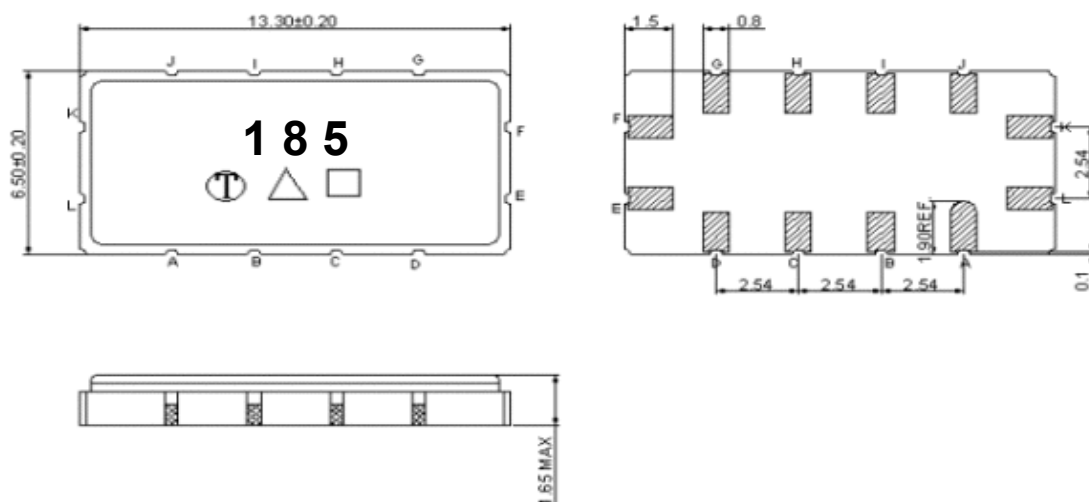
D. Measurement Circuit:



Zin and Zout are $50\ \Omega$.

$L1=180\text{ nH}, C1=47\text{ pF}, L2=180\text{ nH}, C2=52\text{ pF}$

E. Outline Drawing:



Pin K: RF input

Pin E: RF output

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

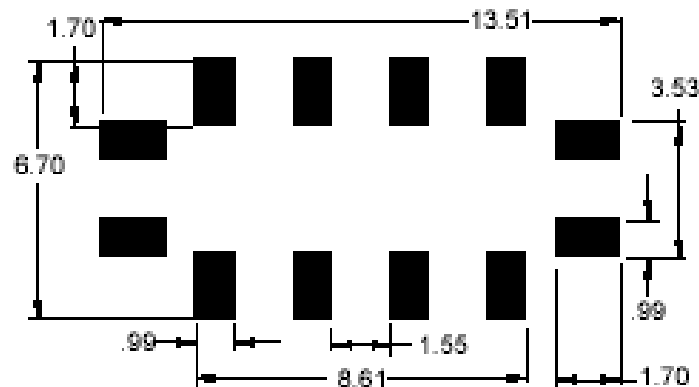
□ : Week Code (Follow the table from planner each year)

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>

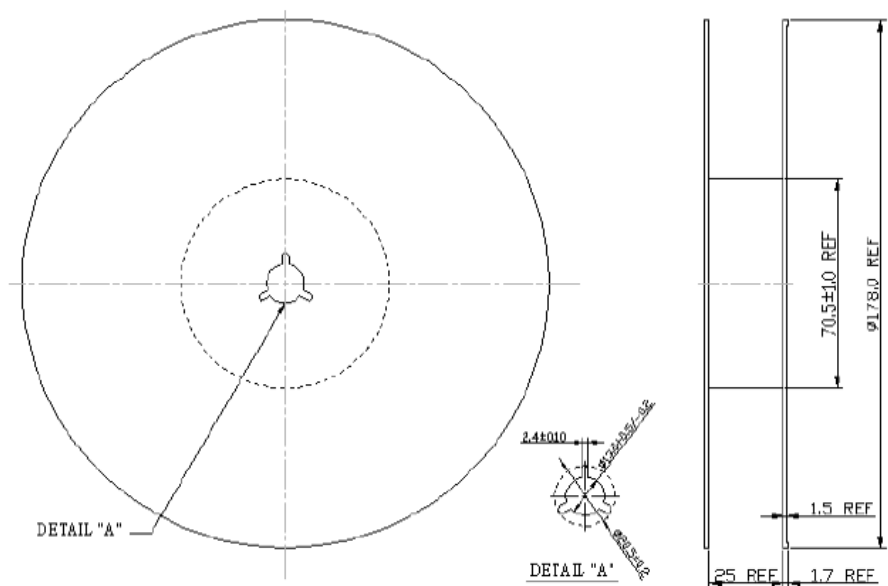
F. PCB Footprint:



Unit: mm

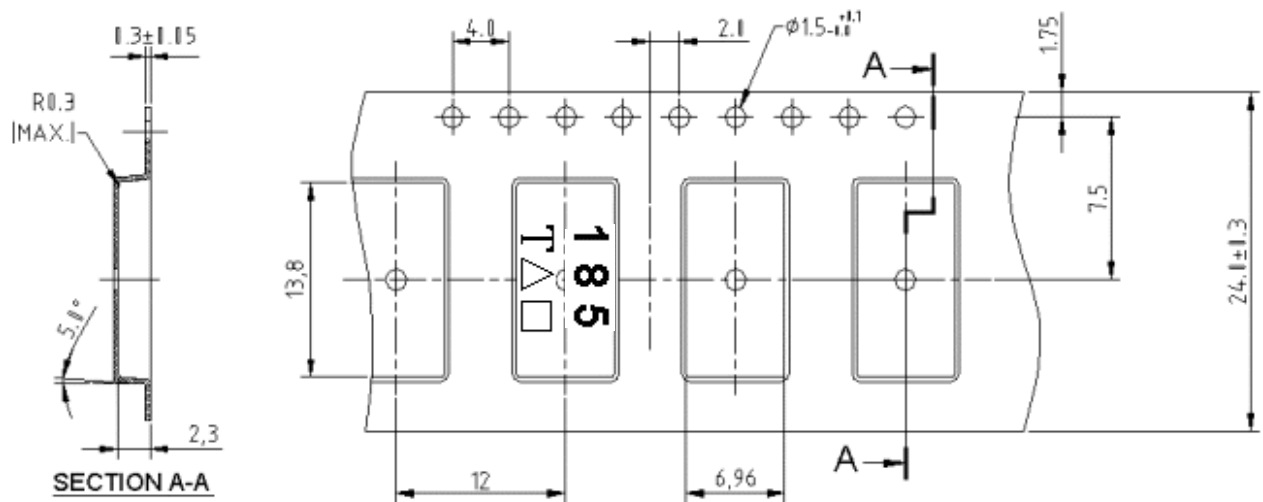
H. PACKING:

1. REEL DIMENSION



Unit: mm

2. TAPE DIMENSION



Unit: mm

I. RECOMMENDED REFLOW PROFILE_:

