



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
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Product Specifications Approval Sheet

Product Name: SAW Filter 150 MHz SMD 5.0x5.0 mm (BW=50 MHz)

TST Parts No.:TB1004A

Customer Parts No.:_____

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

Checked by:_____ Hayley Chou *Hayley Chou*

Approval by:_____ Egbert Huang *Egbert Huang*

Date:_____ 2017/11/27

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 150 MHz

MODEL NO.: TB1004A

REV.2.0

A. MAXIMUM RATING:

1. Input power: 10dBm
2. Operating Temperature: -40 °C ~ +85 °C
3. Storage Temperature: -40 °C ~ +85 °C
4. Moisture Sensitive Level: Level 1(MSL1)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

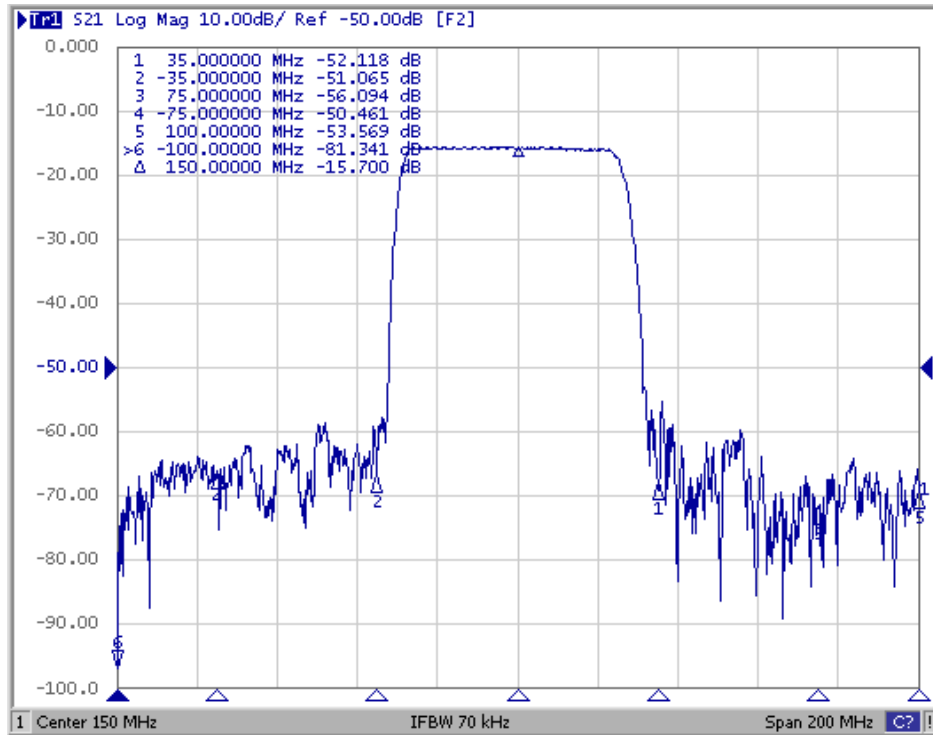
B. ELECTRICAL CHARACTERISTICS:

Ambient Temperature: 25 °C

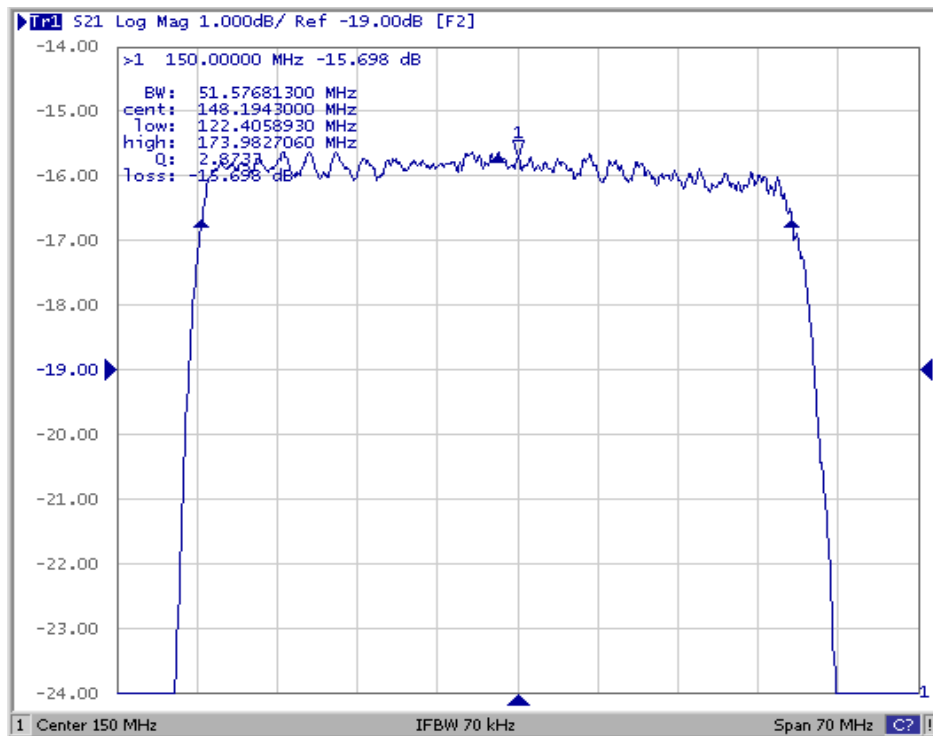
Parameters Description	Unit	Min.	Type.	Max.
Center Frequency Fc	MHz	-	150	-
Minimum Insertion loss IL	dB	-	15.5	18.0
1 dB bandwidth	MHz	50.0	52.5	-
Return Loss	dB	-	3.7	-
VSWR	-	-	4.7	-
Phase linearity	deg	-	4.2	6.0
Rejection at Fc±35 MHz	dB	40	44	-
Rejection at Fc±75 MHz	dB	45	52	-
Rejection at Fc±100 MHz	dB	45	53	-
Rejection from DC~50 MHz	dB	50	53	-
Rejection from 250~590 MHz	dB	35	38	-
Substrate Material	YZ-LiNbO3			
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 CHARACTERISTIC:

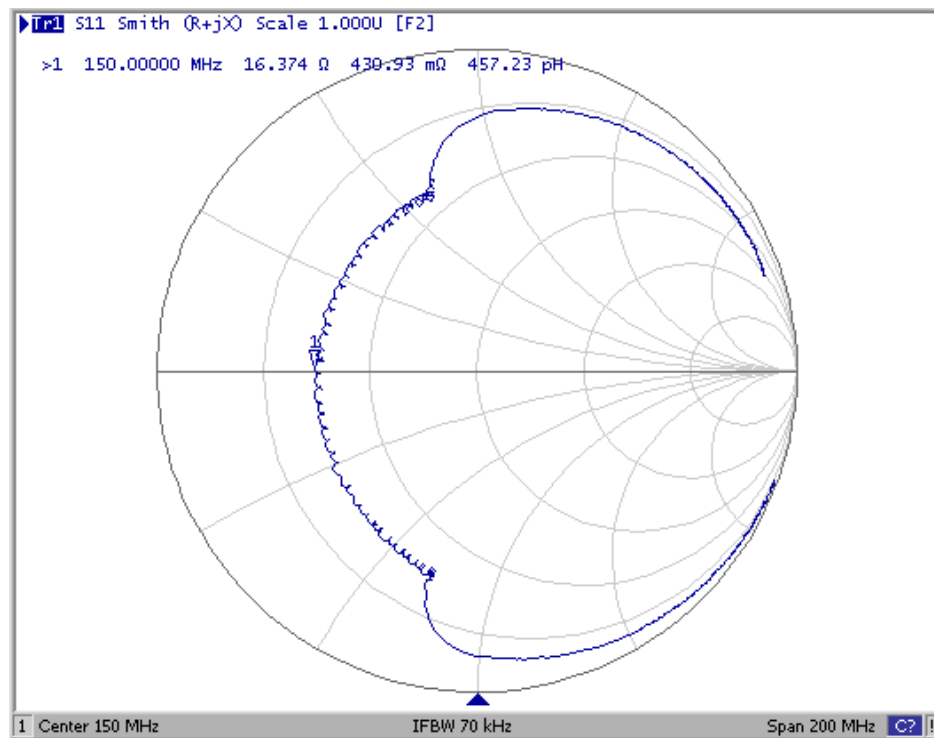
1. S21 Response: (span: 200MHz)



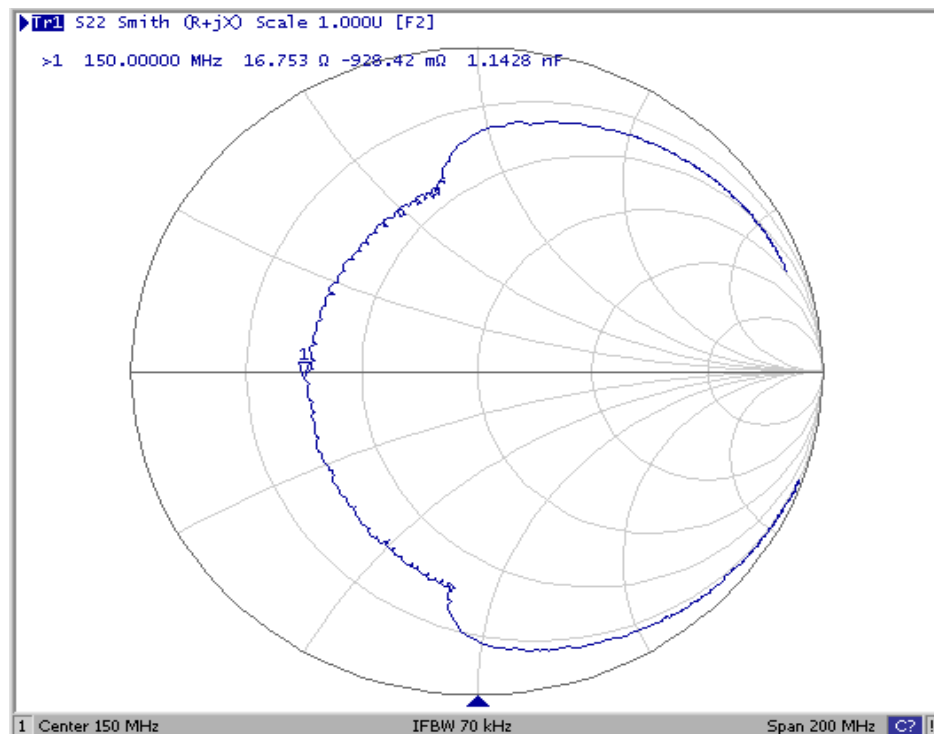
2. Pass-band Response: (span: 70MHz)



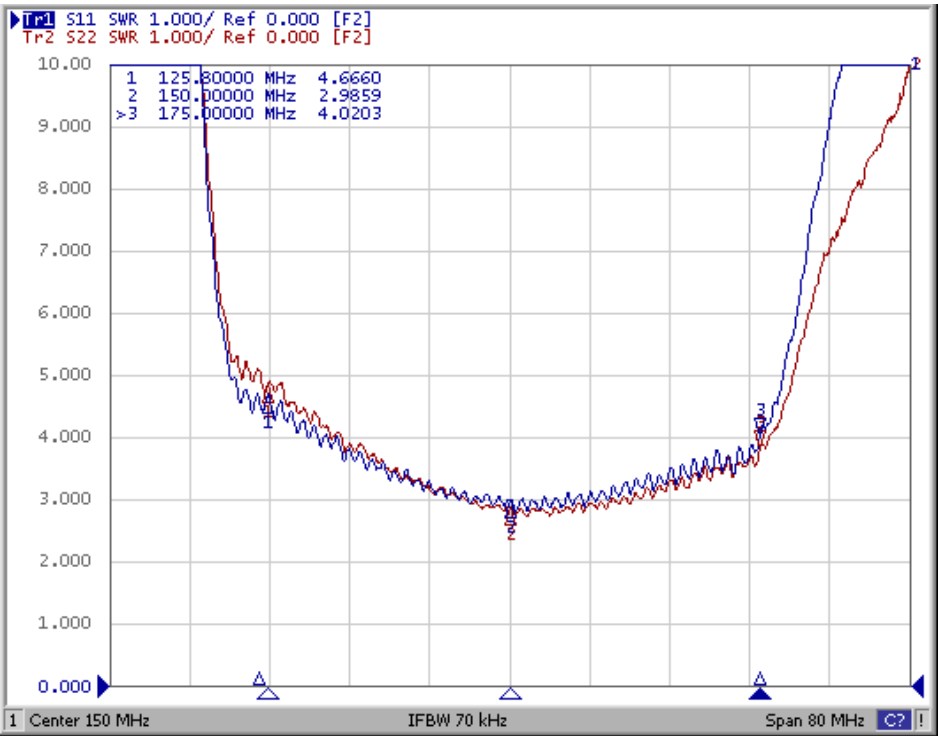
3. S11 Smith Chart: (span: 200MHz)



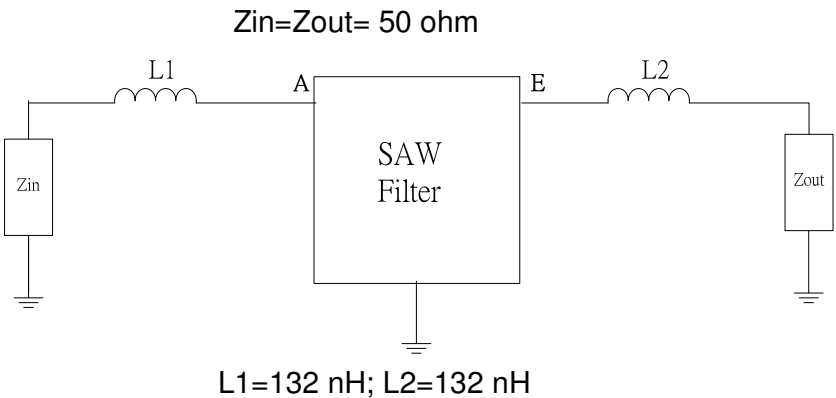
4. S22 Smith Chart (span: 200MHz)



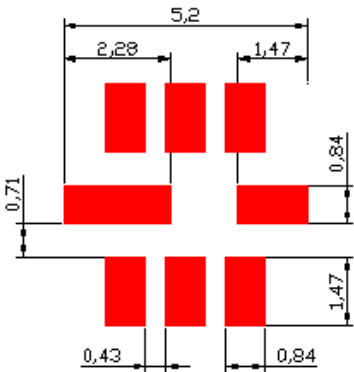
5. S11&S22 Smith Chart (span: 80MHz)



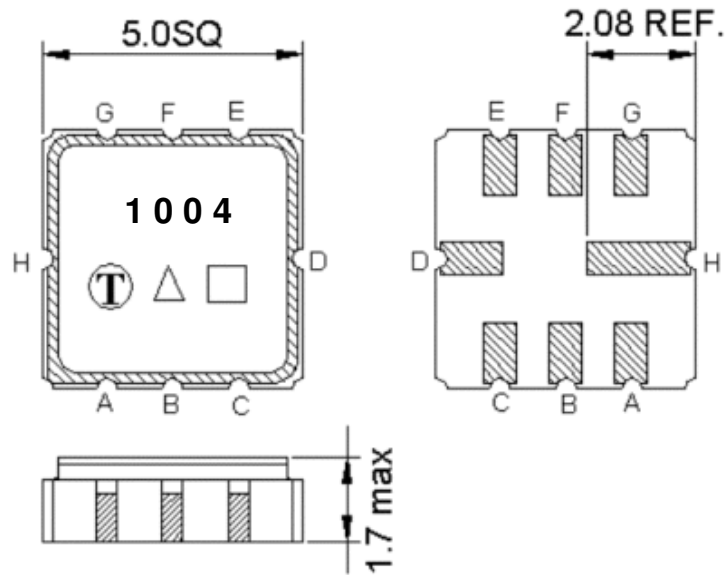
D. MEASUREMENT CIRCUIT:



E. PCB Footprint:



F. OUTLINE DRAWING:



Pin A: RF input

Pin E: RF output

Pin H, D: Case Ground

Pin B, C, F, G: Ground

Unit: mm

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

△ : Product / Year Code

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

Week Code Table:

WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

(Please refer to FR-75D10 for packing quantity)



H. Recommended Reflow Profile:

1. Preheating shall be fixed at $150\sim 180^{\circ}\text{C}$ for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at $260^{\circ}\text{C}+0/-5^{\circ}\text{C}$ peak (20~40sec).
4. Time: 2 times.

