



TAI-SAW TECHNOLOGY CO., LTD.

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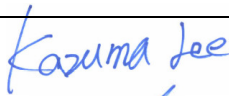
Product Specifications Approval Sheet

Product Description: 168 MHz 20 MHz BW SMD 13.3 x 6.5 mm SAW IF Filter

TST Parts No.: TB0727A

Customer Parts No.: _____

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

Checked by: _____ Kazuma Lee 

Approval by: _____ Bob Chau 

Date: _____ 05 / 03 / 2017

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 168MHz 20MHz BW (SMD 13.3x6.5 mm)

MODEL NO.: TB0727A

Rev No.2

A. MAXIMUM RATING:

1. Operating temperature range: -40 °C to 85 °C
2. Storage temperature range: -40 °C to 85 °C
3. Input Power Level : 10 dBm
4. Maximum DC Voltage : 10V

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device

B. CHARACTERISTICS:

1. Ambient Temperature: 25 °C

Item	Unit	Min.	Type.	Max.
Center frequency, Fc	MHz	-	168	-
Insertion Loss, IL	dB	-	12.2	13.5
-1dB BW	MHz	-	20.9	-
-3dB BW	MHz	20	22.4	-
Upper -35dB Band edge	MHz	-	181.7	183
Lower -35dB Band edge	MHz	153	155.1	-
Passband ripple at Fc +/- 8MHz	dB	-	0.4	1.0
Group delay ripple at Fc +/- 8MHz	ns	-	35	160
Absolute delay	us	-	0.85	1.0
Temperature Coefficient	ppm/°C	-	-72	-
Source / Load Impedance	Ohm	-	50	-

C. FREQUENCY CHARACTERISTICS:

(1) S21 Response:(span 180MHz)

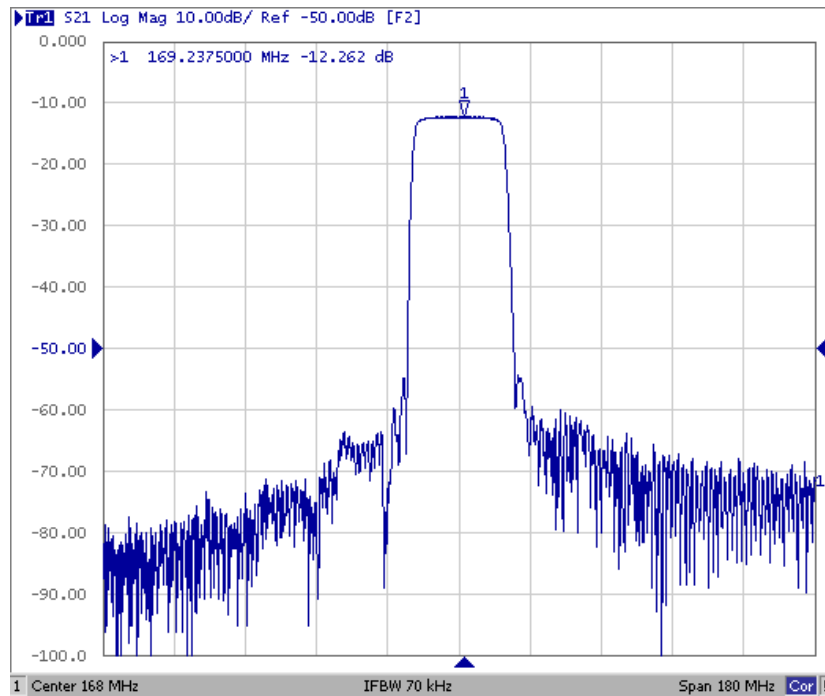


Fig1. Horizontal: 18MHz/Div Vertical: 10dB/Div

(2) Pass band Response:

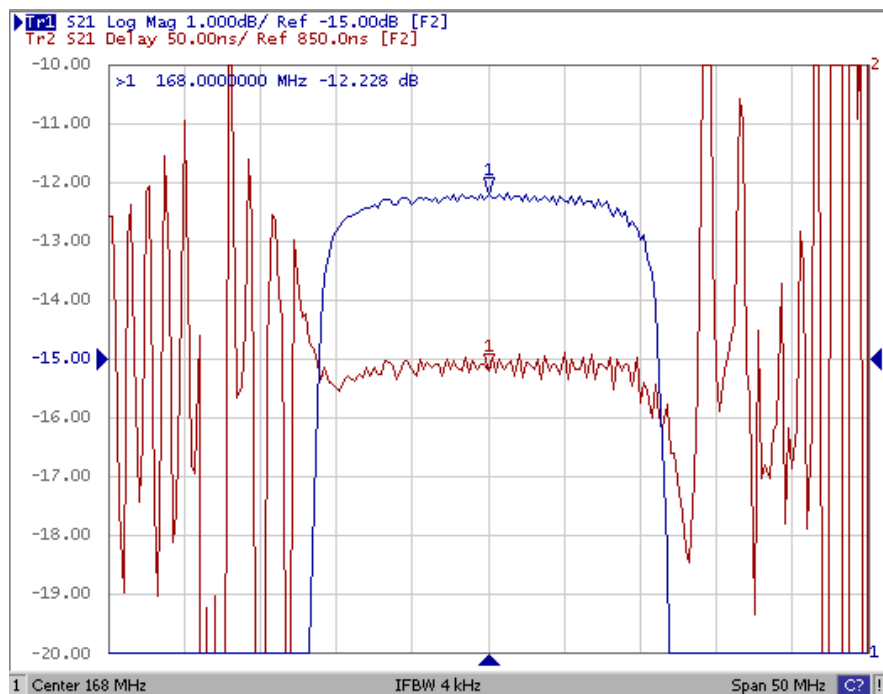
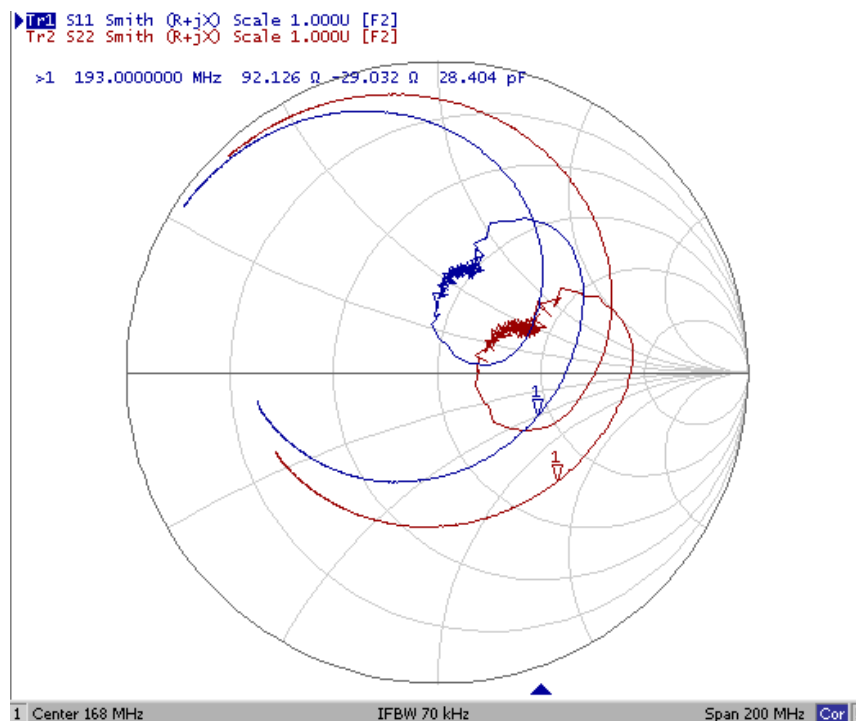
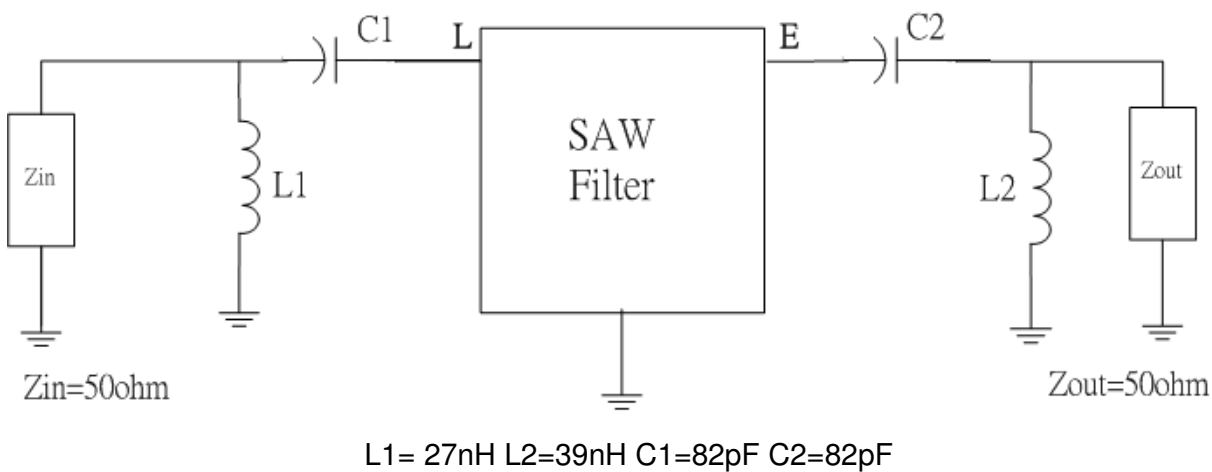


Fig2. Horizontal: 5MHz/Div Vertical: 1dB/Div
Vertical: 50ns/Div

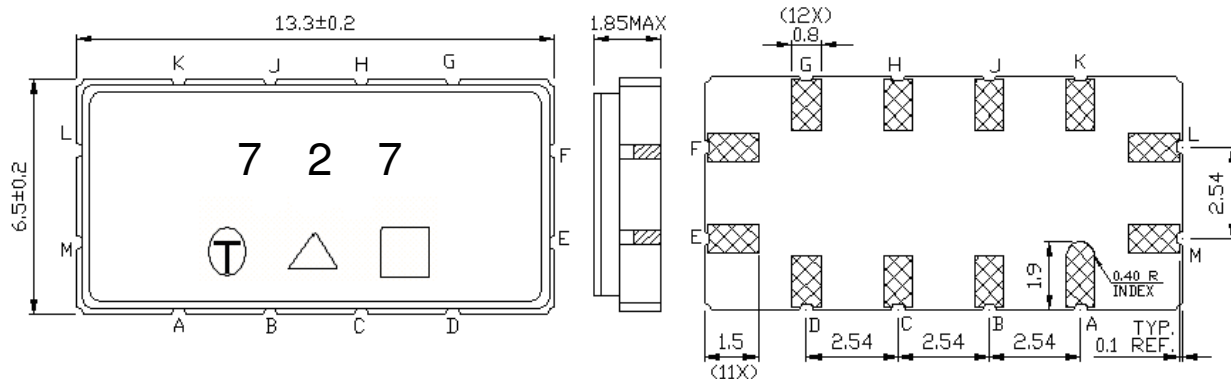
(3) Smith chart



D. MATCHING CIRCUIT:



E.OUTLINE DRAWING:



Pin L: RF Input

Pin E: RF Output

Pin A, B, C, D, F, G, H, J, K, M: Ground

Unit: mm

□ : Week Code

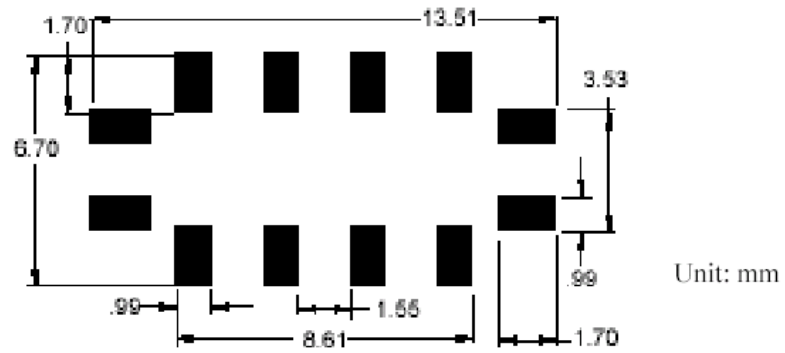
△ : Product / Year Code

Year	2017 2021	2018 2022	2019 2023	2020 2024
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

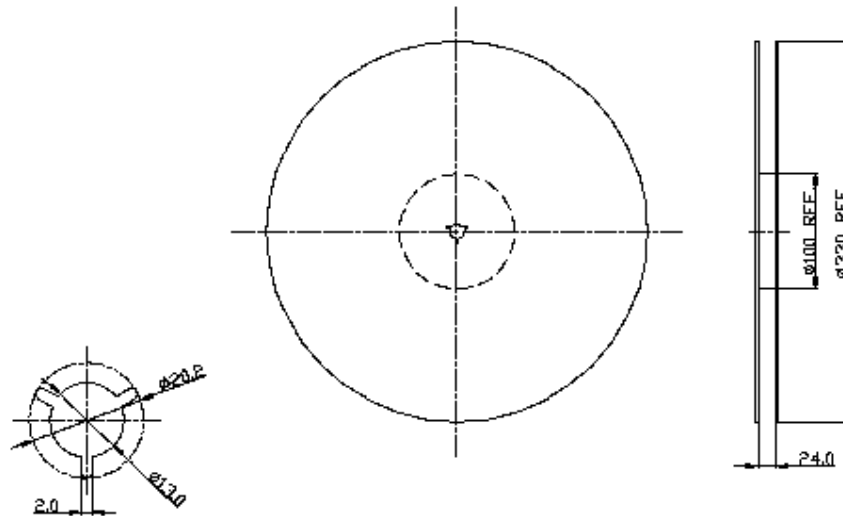
F. PCB FOOTPRINT:



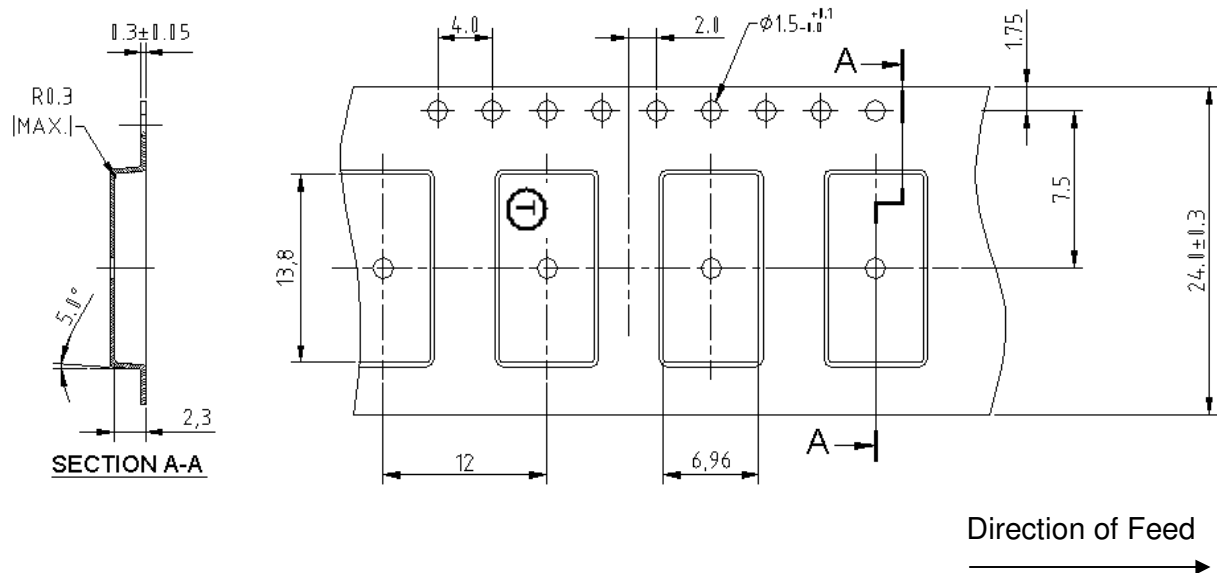
G. PACKING:

1. REEL DIMENSION

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



2. TAPE DIMENSION



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 $260^\circ\text{C} \pm 0/-5^\circ\text{C}$ peak (20~40sec).
4. Time: 2 times.

