



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Description: 37.8 MHz 5.9MHz BW SMD 13.3 x 6.5 mm SAW IF Filter

TST Parts No.: TB1045A

Customer Parts No.: _____

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

Checked by: _____ Ava Wang *Ava Wang*

Approved by: _____ Kazuma Lee *Kazuma Lee*

Date: _____ 2022/03/18

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 37.8MHz 5.9MHz BW (SMD 13.3x6.5 mm)

MODEL NO.: TB1045A

REV. NO.2.0

A. MAXIMUM RATING:

1. Operating temperature range: -10°C to 60°C
2. Storage temperature range: -40°C to 80°C
3. Input Power Level : 10 dBm
4. Maximum DC Voltage : 10V
5. Moisture Sensitivity Level: Level 1(MSL1)



Electrostatic Sensitive Device

B. CHARACTERISTICS :

Item	Unit	Min.	Type.	Max.
Center frequency, Fc	MHz	-	37.8	-
Insertion Loss, IL	dB	-	18.5	20.0
1dB Band Width	MHz	-	5.8	-
40dB Band Width	MHz	-	9.3	10.5
Amplitude Ripple Fc+/-2.5MHz	dB	-	0.6	1.0
Attenuation (Reference level from typical Insertion loss)				
Fc+/-10.5MHz ~ Fc+/-14MHz	dB	40	45	
Fc+/-14MHz ~ Fc+/-20MHz	dB	45	50	
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

C. FREQUENCY CHARACTERISTICS :

(1) Wide band Response:(span 60MHz)

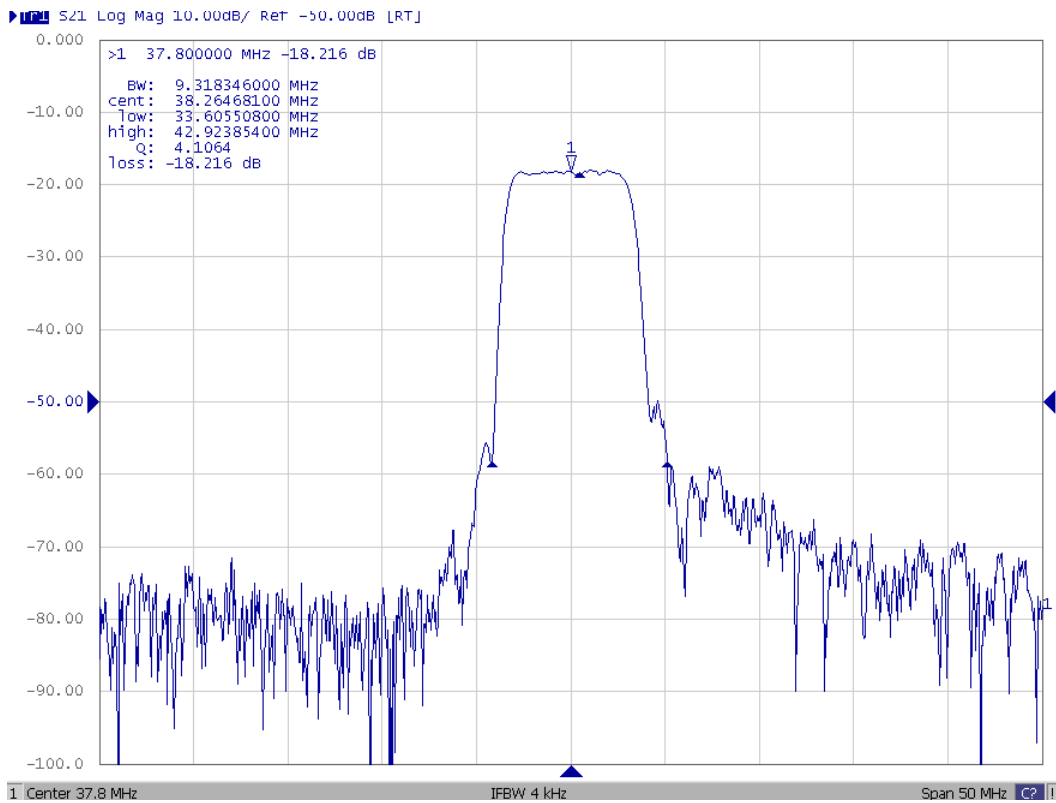


Fig1. Horizontal: 5MHz/Div Vertical: 10dB/Div

(2) Pass band Response and Group Time Delay response:

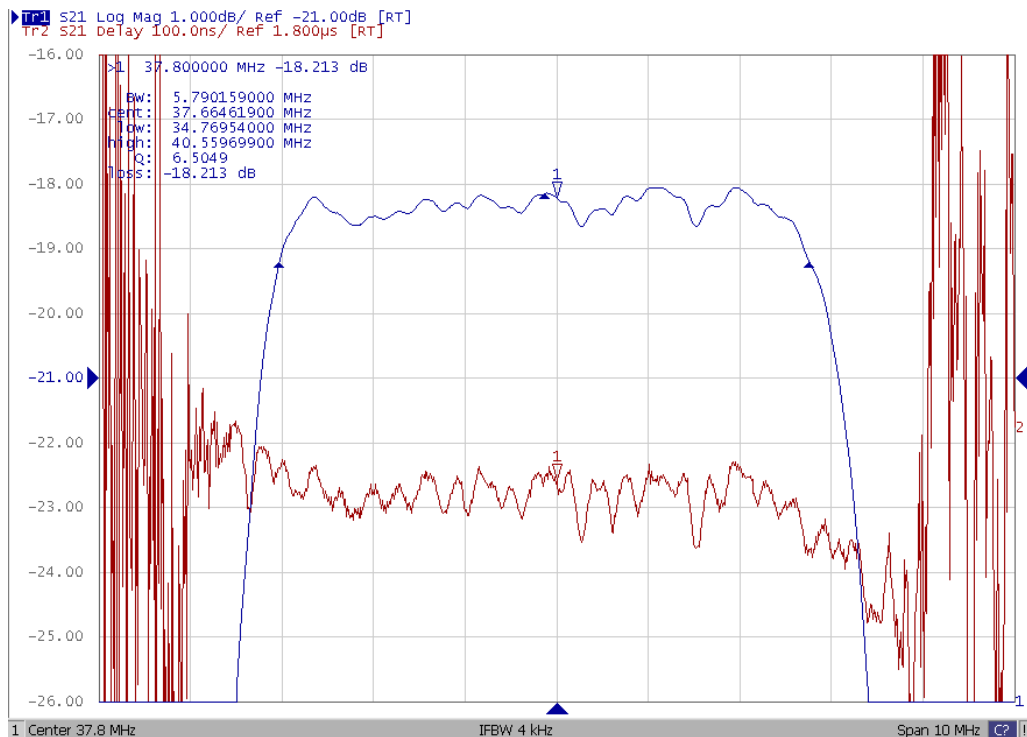
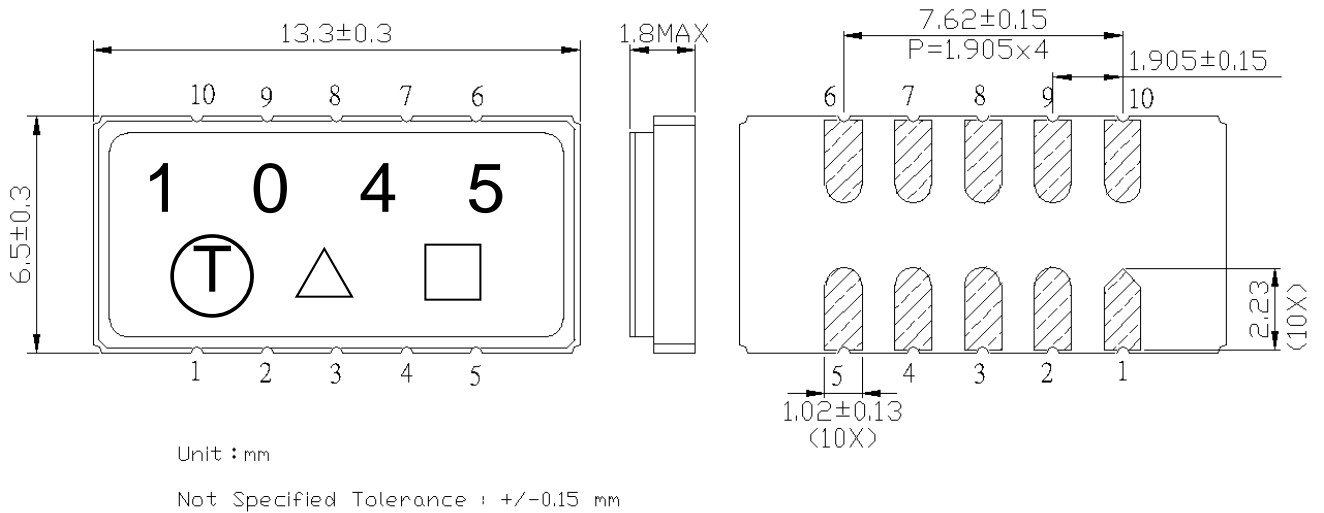


Fig2. Horizontal: 1.0MHz/Div Vertical: 1dB/Div
Vertical: 100ns/Div

D. OUTLINE DRAWING:



- #1: Input
- #10 : Input Ground
- #6 : Output
- #5 : Output Ground
- #2,3,4,7,8,9: Ground
- : Week Code (Follow the table from planner each year)
- Unit: mm
- △ : Product / Year Code

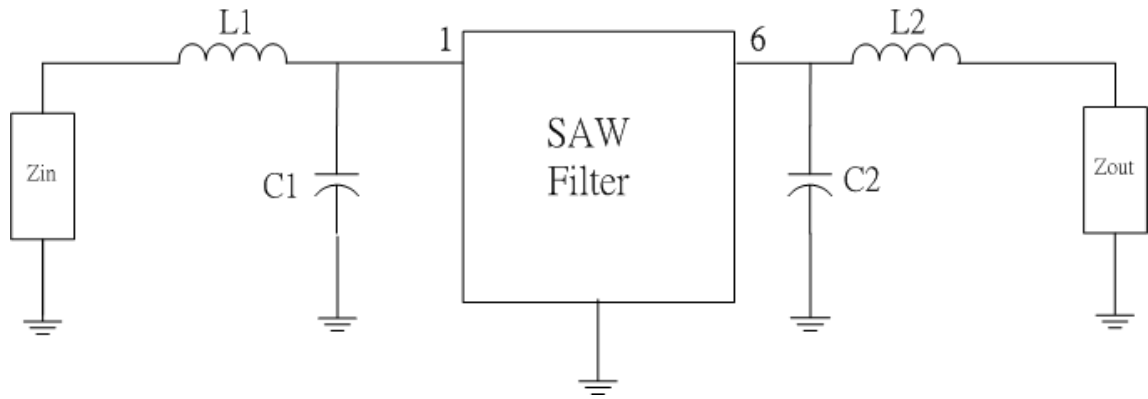
Product Code Table- 4year cycle

Year	2021 2025	2022 2026	2023 2027	2024 2028
Product Code	B	b	<u>B</u>	<u>b</u>

Week Code Table

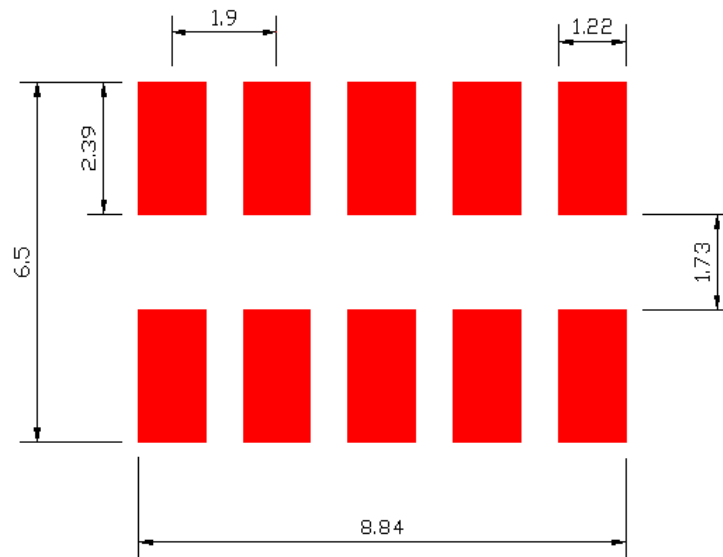
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45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

E. MATCHING CIRCUIT:



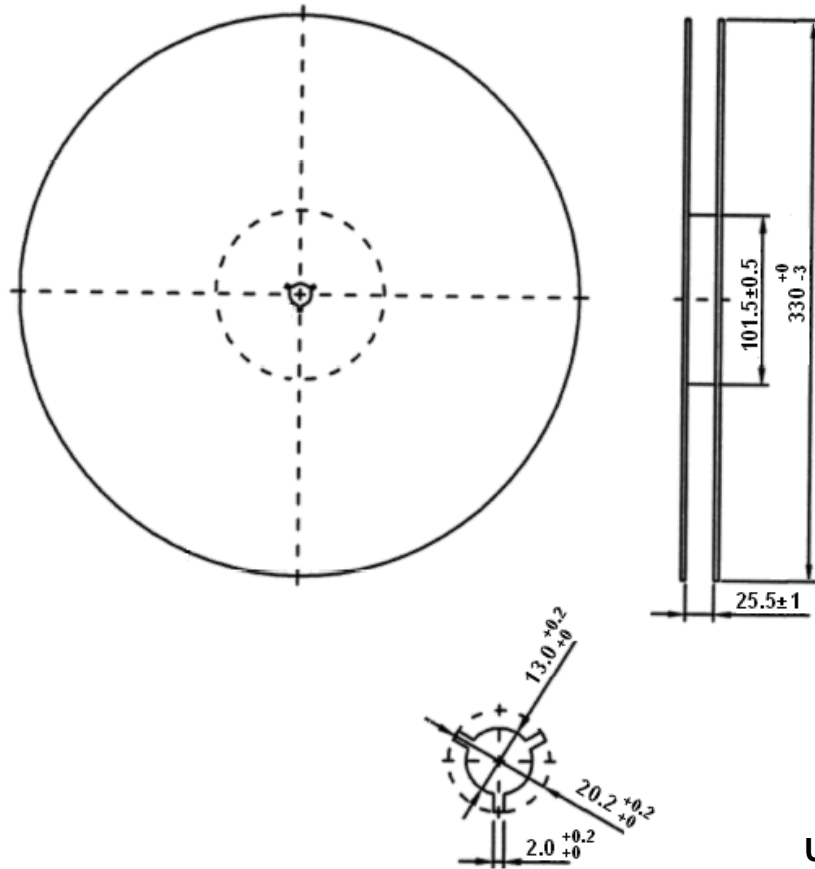
$L1=680\text{nH}$ $L2=82\text{nH}$ $C1=4.7\text{pF}$ $C2=4.7\text{pF}$

F. PCB FOOTPRINT:



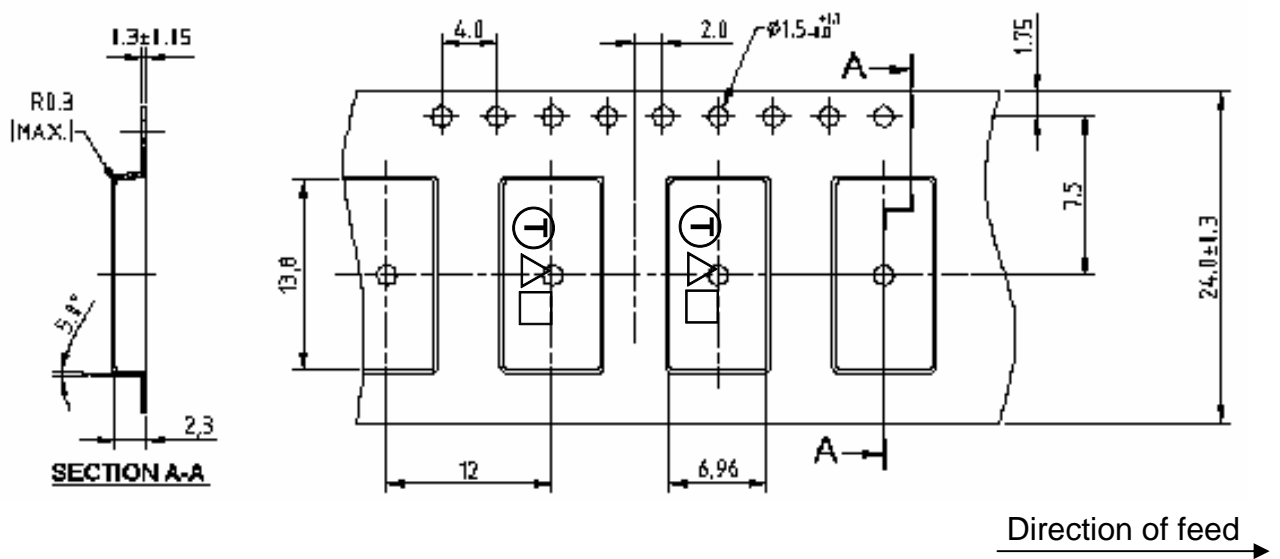
G. PACKING:

1. REEL DIMENSION (Please refer to FR-75D10 for packing quantity)



Unit: mm

2.2. TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE_:

1. Preheating shall be fixed at 150~180°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°C +0/-5°C peak (20~40sec).
4. Time: 2 times.

