



TAI-SAW TECHNOLOGY CO., LTD.

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

Product Name: IF SAW Filter 138 MHz SMD 7.0x5.0 mm (BW=0.12 MHz)

TST Parts No.: TB1363A

Customer Parts No.: _____

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

Checked by: _____ Hayley Chou *Hayley Chou*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 2020/01/17

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 138 MHz

MODEL NO.: TB1363A

REV. NO.:1.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC voltage: 3 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +85 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)

RoHS Compliant

Lead-free soldering

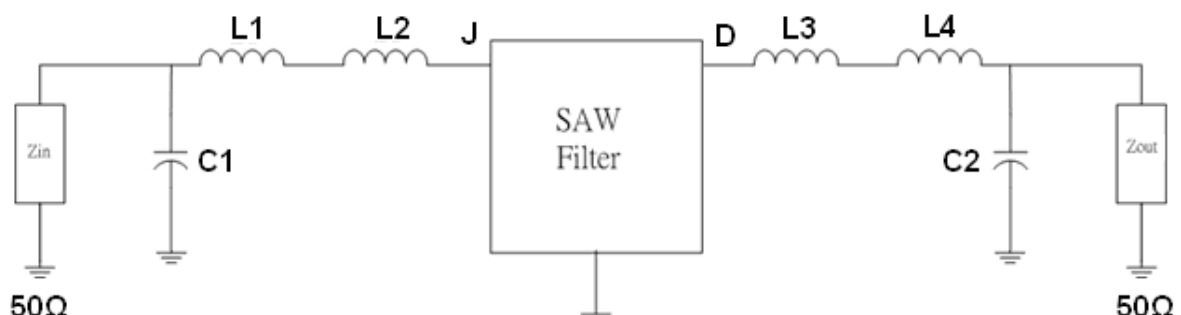
Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Ambient Temperature: 25 °C

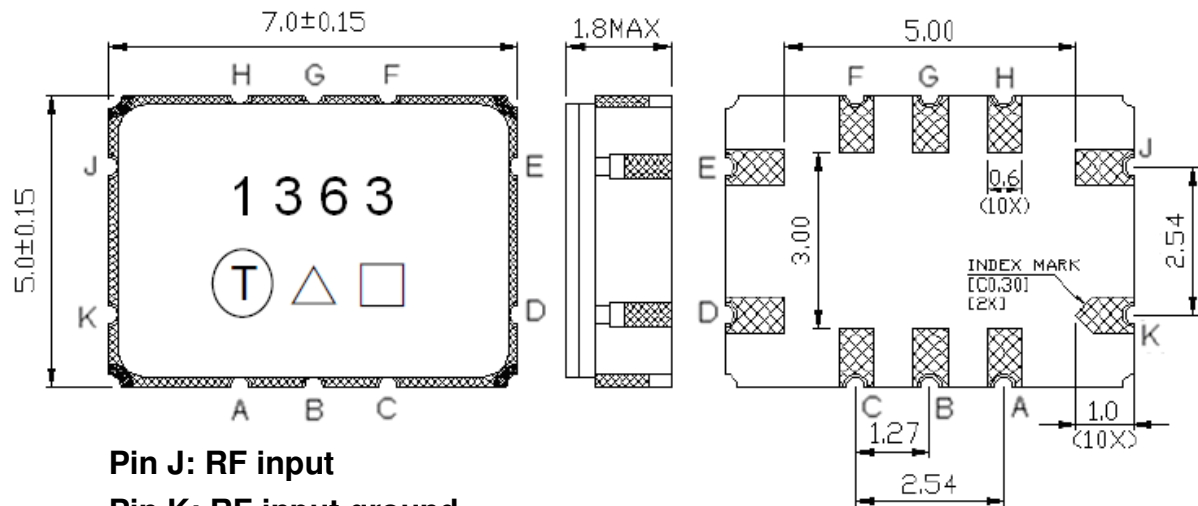
Parameters Description	Unit	Min.	Typ.	Max.
Center Frequency F_c	MHz	-	138	-
Minimum Insertion Loss IL_{min}	dB	-	5.2	8.3
1 dB Bandwidth	MHz	0.12	0.33	-
Amplitude Ripple (F _c ±60 kHz)	dB	-	0.3	1.2
Attenuation (Reference level from IL _{min})				
F _c ±500 kHz ~ F _c ±4 MHz	dB	10	23	-
F _c ±4 MHz ~ F _c ±20 MHz	dB	35	43	-
Temperature coefficient of frequency	ppm/°C	-0.036		

C. MEASUREMENT CIRCUIT:



L1=330nH, L2=36nH, L3=330nH, L4=47nH, C1=24pF, C2=20pF

D. OUTLINE DRAWING:



- Pin J: RF input
Pin K: RF input ground
Pin D: RF output
Pin E: RF output ground
Pin A, B, C, F, G, H: Ground
Unit: mm
△: Product / Year Code
□: Date Code

Product / Year Code

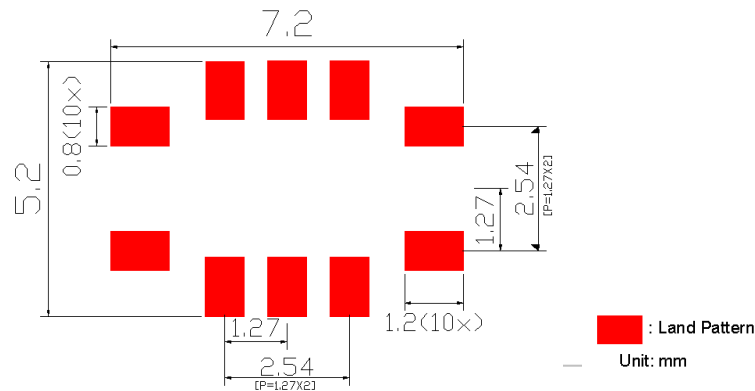
Year	2017 2021	2018 2022	2019 2023	2020 2024
Product Code	B	b	<u>B</u>	<u>b</u>

This table is four-year cycle (ex: Year 2025, △ will show “B”)

Date 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

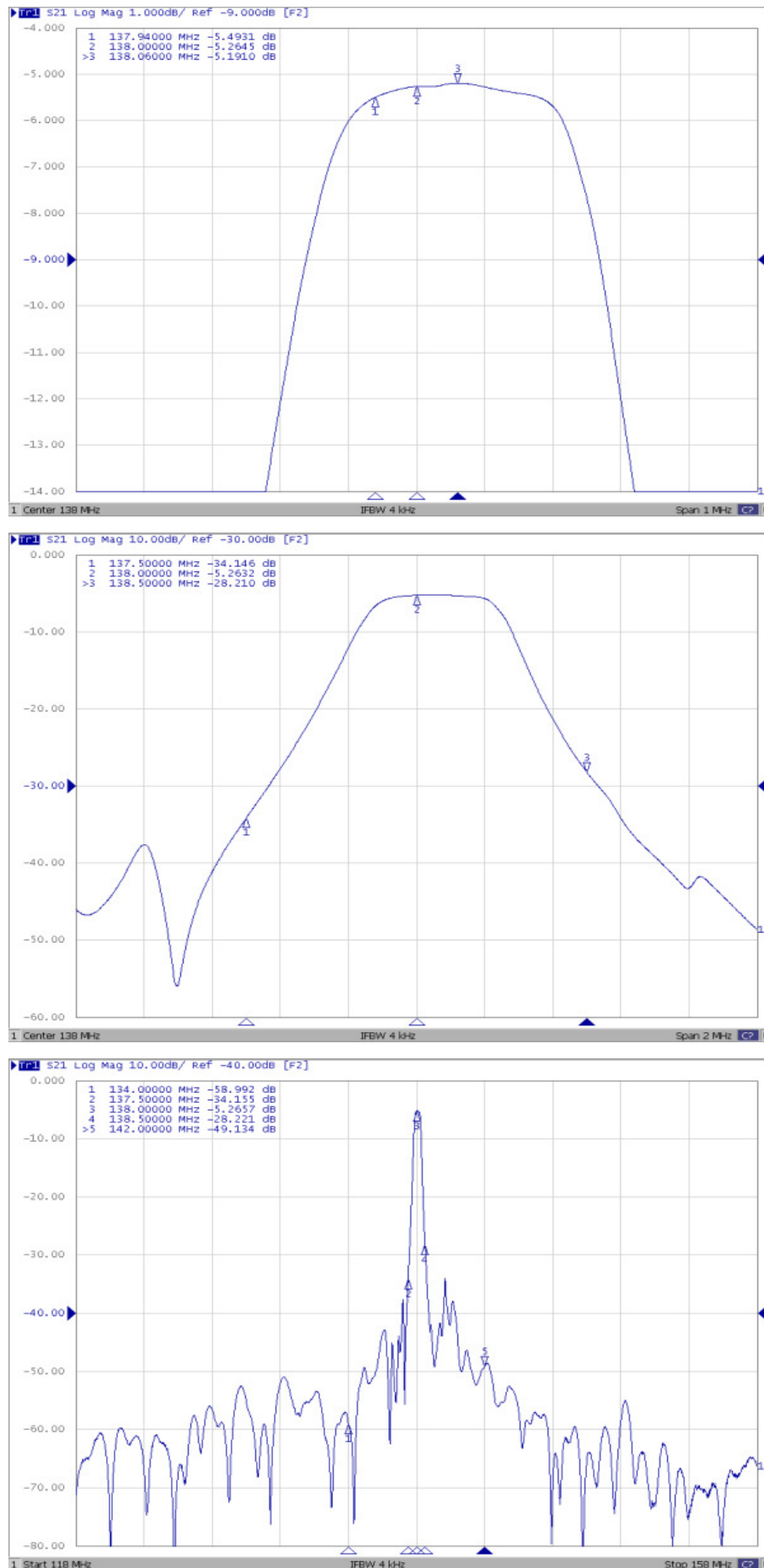
E. PCB Footprint:



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TST DCC
Release document

F. FREQUENCY CHARACTERISTIC:



1. REEL DIMENSION

Technical drawing of a mechanical part showing front, top, and side views with dimensions.

Front View: A circle with a dashed center circle and a crosshair indicating the center.

Top View: A circle with a dashed center circle and a crosshair indicating the center.

Side View: A rectangular profile with the following dimensions:

- Overall height: 330^{+0}_{-3}
- Inner height: 101.5 ± 0.5
- Overall width: 18.5 ± 1

Detail View: A circular detail view showing a cross-section of a hole with the following dimensions:

- Outer diameter: $13.0^{+0.2}_{+0}$
- Inner diameter: $20.2^{+0.2}_{+0}$
- Thickness: $2.0^{+0.2}_{+0}$

Unit: mm

2. TAPE DIMENSION



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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.

