

TAI-SAW TECHNOLOGY CO., LTD. No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District, Taoyuan, 324, Taiwan, R.O.C. TEL: 886-3-4690038 FAX: 886-3-4697532

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Product Specifications Approval Sheet

Product Name: IF SAW Fil	ter 50 MHz SMD 7	7.0×5.0 mm (BW=10 MHz)
TST Parts No.: TB1357A		
Customer Parts No.:		
Customer signature requ	uired	
Company:		
Division:		
Approved by :		
Date:		
	Hayley Chou	
Checked by:	Andy Yu	Andy In
Date:	2020/02/24	

- 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 50 MHz

MODEL NO.: TB1357A REV. NO.:1.0

A. MAXIMUM RATING:

1. Input Power Level: 30 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)

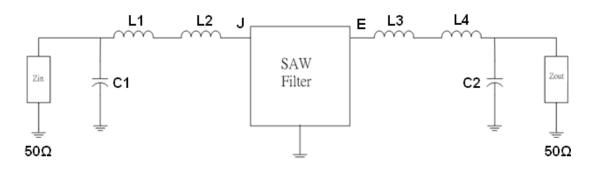
RoHS Compliant
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. <u>ELECTRICAL CHARACTERISTICS</u>:

Item	Unit	Min.	Тур.	Max.					
Center Frequency Fc	MHz	-	50	-					
Minimum Insertion Loss IL _{mi}	n dB	-	10.1	12.0					
1 dB Bandwidth	MHz	10.0	11.4	-					
Amplitude Ripple (Fc±5 MHz)	dB	-	0.7	1.0					
Group Delay Ripple (Fc±5 MHz)	nsec	-	80	140					
Absolute Group Delay	µsec	-	0.69	-					
Return Loss (Fc±5 MHz)	dB	4.0	6.5	-					
Attenuation (Reference level from IL _{min})									
DC ~ 35 MHz	dB	45	50	-					
35 ~ 40 MHz	dB	25	46	-					
60 ~ 65 MHz	dB	25	39	-					
65 ~ 1000 MHz	dB	40	46	-					
Temperature Coefficient of Frequency	ppm/°C	-94							

C. MEASUREMENT CIRCUIT:

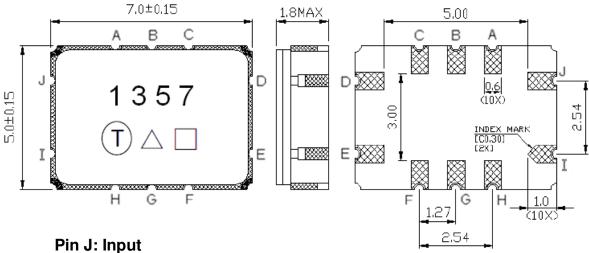


L1=270nH, L2=47nH, L3=330nH, L4=56nH, C1=47pF, C2=30pF

TAI-SAW TECHNOLOGY CO., LTD.

TST DCC
Release document

D. **OUTLINE DRAWING**:



Pin E: Output
Others: Ground

Unit: mm

△: Product / Year Code

☐: Date Code

Product / Year Code

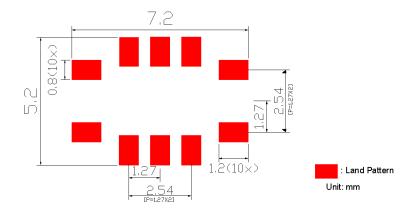
Year	2017	2018	2019	2020	
	2021	2022	2023	2024	
Product Code	В	b	<u>B</u>	<u>b</u>	

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

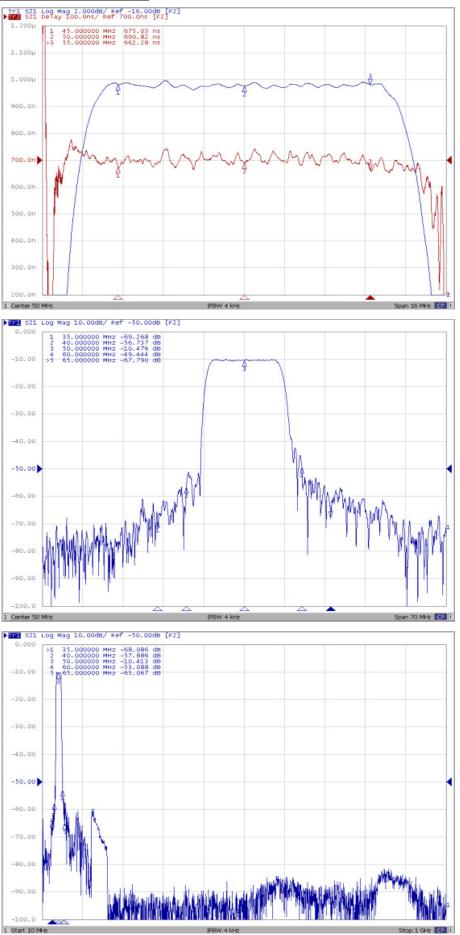
Date Code Table:

WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
Α	В	С	D	E	F	G	Н	1	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	0	Р	Q	R	S	T	U	V	W	Х	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
а	b	С	d	Θ	f	g	h	i	j	k	1	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	0	р	q	r	S	t	u	V	W	Ж	У	Z

E. PCB Footprint:

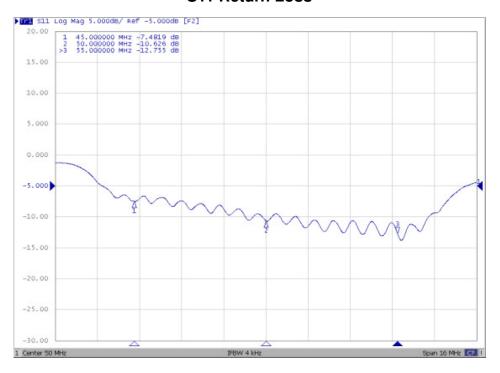


F. FREQUENCY CHARATERISTIC:

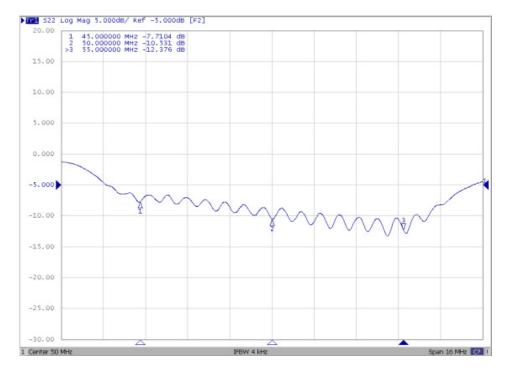


Reflection Functions:

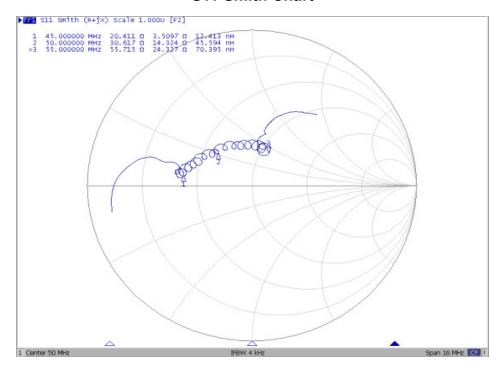
S11 Return Loss



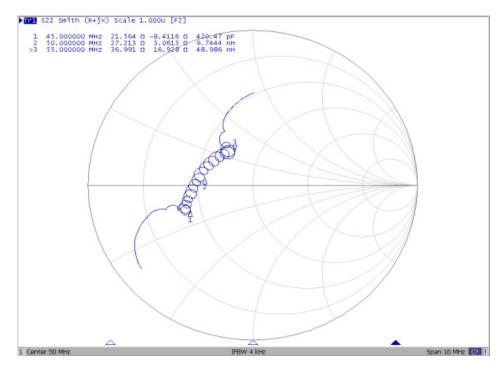
S22 Return Loss



S11 Smith Chart



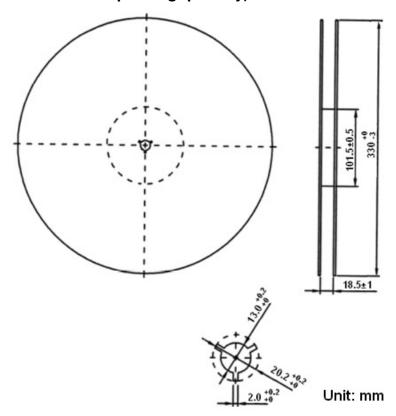
S22 Smith Chart



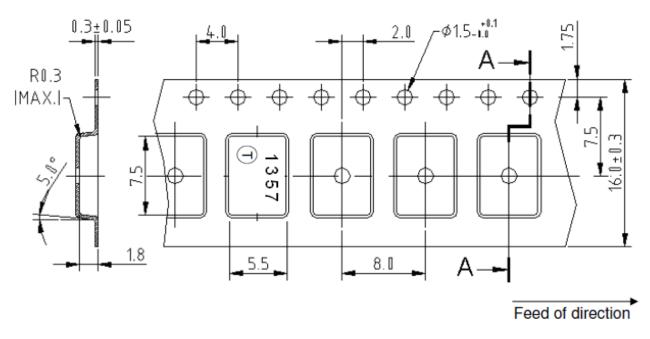
G. PACKING: (Ref. WI-75M03)

1. REEL DIMENSION

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



2. TAPE DIMENSION



Unit: mm

H. RECOMMENDED REFLOW PROFILE:

- 1. Preheating shall be fixed at $150 \sim 180^{\circ}$ °C for $60 \sim 90$ 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.

