Taoyuan, 324, Taiwan, R.O.C. TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: tstsales3@mail.taisaw.com Web: www.taisaw.com

Product Specifications Approval Sheet

Product Description: Low-I	Loss 70MHz IF S	AW Filter (BW=9 MHz)
TST Parts No.: TB0213A		
Customer Parts No.:		
Customer signature require	ed	
Company:		
Division:		
Approved by :		
Date:		
	Allen Shen	Alber Shen
Checked by:	Kazuma Lee	Kasuma Jee
Date:	2022/08/29	

- 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.



TAI-SAW TECHNOLOGY CO., LTD.

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

E-mail: tstsales3@mail.taisaw.com Web: www.taisaw.com

Low-Loss 70 MHz IF SAW Filter (SMD 13.3×6.5 mm)

Model No.: TB0213A Rev. No.:4.0

A. MAXIMUM RATING:

1. Input Power Level: +20 dB_m

2. Operating Temperature: -40°C to +85°C

3. Storage Temperature: -40°C to +85°C

4. Moisture Sensitivity Level: Level 1(MSL1)

RoHS Compliant Lead free Lead-free soldering

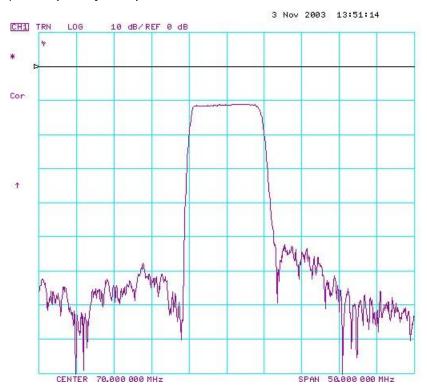
Electrostatic Sensitive Device

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

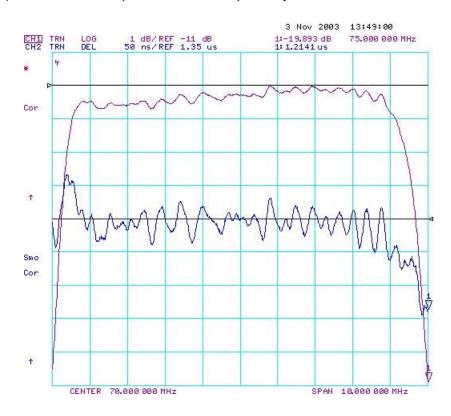
Parameters	Unit	Min.	Typical	Max.				
Center frequency, Fc	MHz	69.8	70	70.2				
Insertion Loss, IL	dB	-	10.7	11.5				
1 dB Bandwidth	MHz	8.4	8.66	-				
3 dB Bandwidth	MHz	9.0	9.31	-				
35 dB Bandwidth	MHz	-	11.7	13.0				
Relative Attenuation:								
10 to 64 MHz	dB	40	46	-				
77 to 140 MHz	dB	40	42	-				
Amplitude ripple within Fc \pm 3.7 MHz	dB	-	0.6	1.0				
Group Delay ripple within Fc ± 3.7 MHz	nsec	-	125	160				
Substrate Material	-	-	YZ-LN	-				
Temperature Coefficient of frequency	ppm/ °C	-	-94	-				

C. FREQUENCY CHARACTERISTICS:

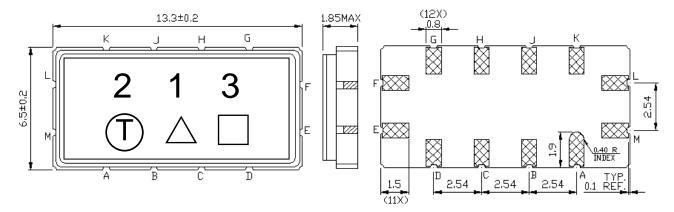
(1) Frequency Response



(2) Passband response and Group Delay Variation



D. **OUTLINE DRAWING:**



Pin L: RF Input
Pin E: RF Output
Pin M: Input Ground
Pin F: Output Ground

Pin A, B, C, D, G, H, J, K: To be Ground

Unit: mm

☐ : Week Code

Product / Year Code- 4year cycle

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

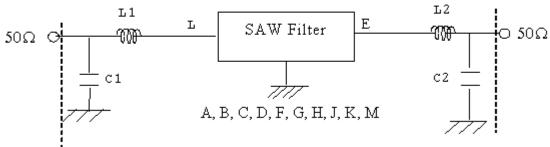
Week Code Table

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

E. MEASUREMENT CIRCUIT:

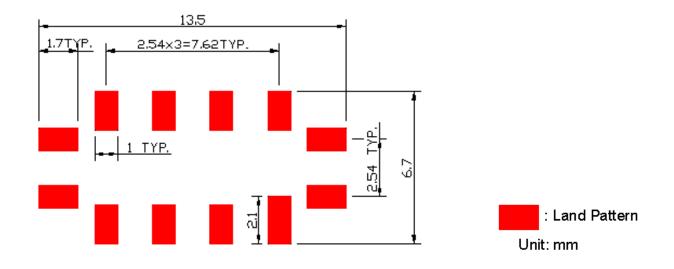
Source and load impedance: 50 $\boldsymbol{\Omega}$

Network analyzer



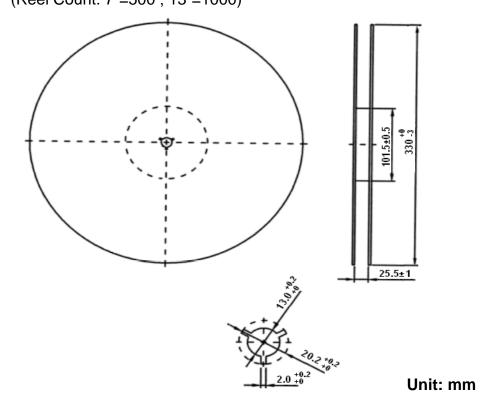
Input: L1=220 nH, Q>40; C1=36 pF Output: L2=220 nH, Q>40; C2=68 pF

F. PCB FOOTPRINT:

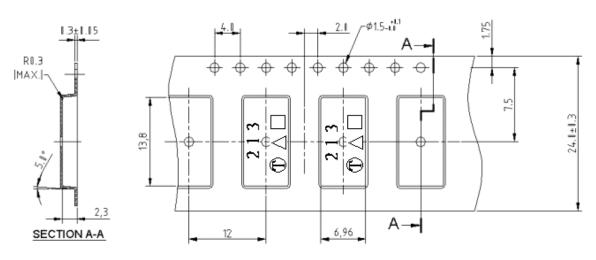


G. PACKING:

 REEL DIMENSION: (Please refer to FR-75D10 for packing quantity) (Reel Count: 7"=500; 13"=1000)



2. TAPE DIMENSION:



Direction of Feed

H. RECOMMENDED REFLOW PROFILE:

- 1. Preheating shall be fixed at $150\sim180^{\circ}$ C for $60\sim90$ 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.

