



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Description: SAW IF Filter 70MHz

TST Parts No.: TB0691A

Customer Parts No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Ava Wang

Approved by: _____ Kazuma Lee

Date: _____ 2022/04/14

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 70MHz 1.3MHz BW (SMD 13.3×6.5 mm)

MODEL NO.: TB0691A

Rev No.2.0

A. MAXIMUM RATING:

1. Operating temperature range: -40°C to 80°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level : 10 dBm
4. Maximum DC Voltage : 10V
5. Moisture Sensitivity Level: Level 1(MSL1)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device

B. ELECTRICAL CHARACTERISTICS:

ELECTRICAL PARAMETERS			VALUE		
Parameter	Sign	Units	MIN	TYP	MAX
Center Frequency	F ₀	MHz	69.9	70	70.1
Insertion Loss	IL	dB	-	9.8	12
-1 dB Pass Bandwidth	BW1	MHz	-	1.0	-
-3 dB Pass Bandwidth	BW3	MHz	1.26	1.32	-
-40 dB Pass Bandwidth	BW40	MHz	-	2.84	2.9
Amplitude Ripple Fc+/- 0.35MHZ	AR	dB	-	0.3	1.0
Group Delay Time Deviation in Pass Band Fc+/- 0.35MHZ	GDV	nsec	-	160	280
Relative Attenuation					
DC ~ 65MHz	dB	UR	45	55	-
75MHz ~ 200MHz	dB	UR	45	55	-
Source and Load Impedances	RS/RL	Ohm	50		

C. FREQUENCY CHARACTERISTICS :

(1) Wide band Response:(span 10MHz)

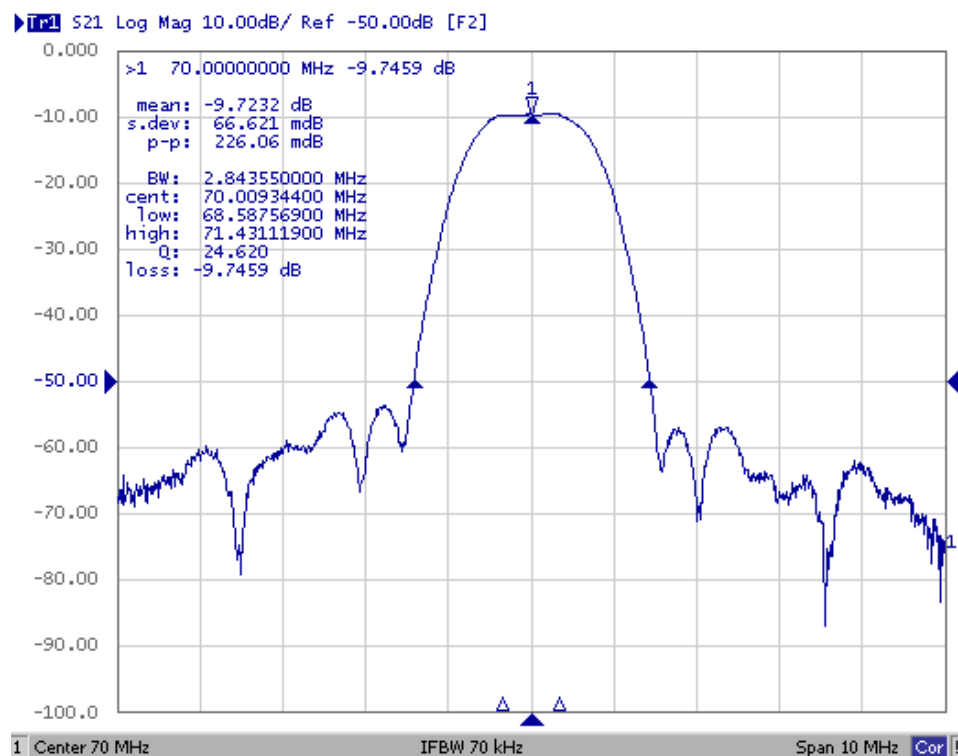


Fig1. Horizontal: 1MHz/Div Vertical: 10dB/Div

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

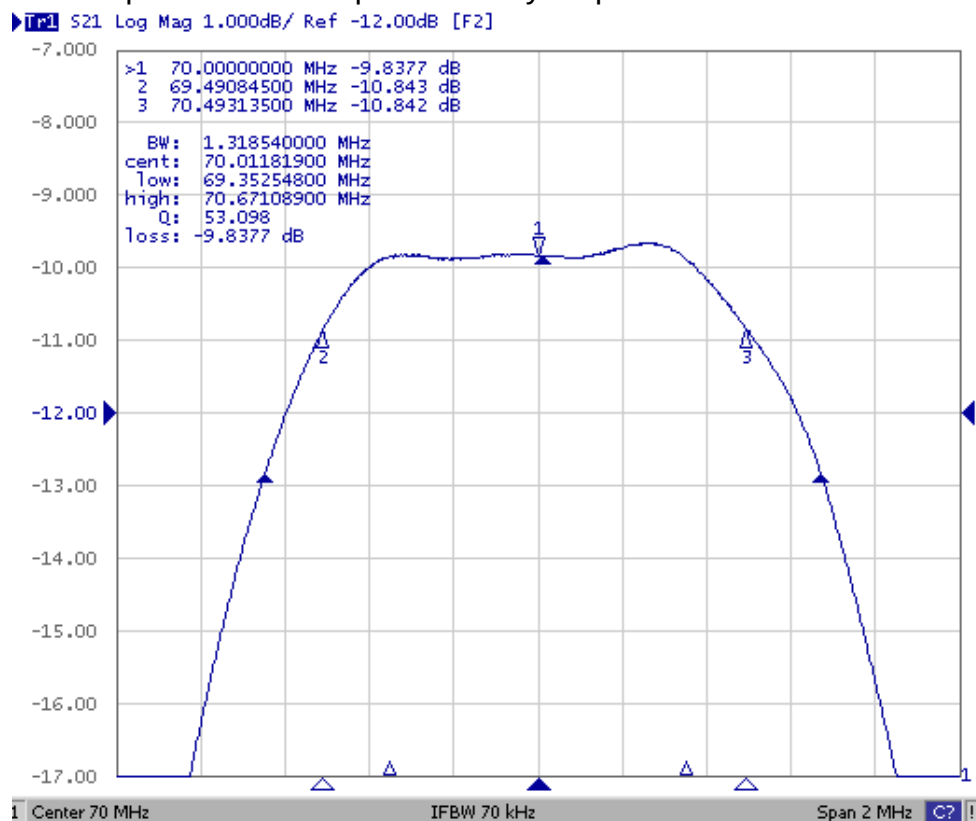


Fig2. Horizontal: 0.2MHz/Div Vertical: 1dB/Div

(3) Group Time Delay response:

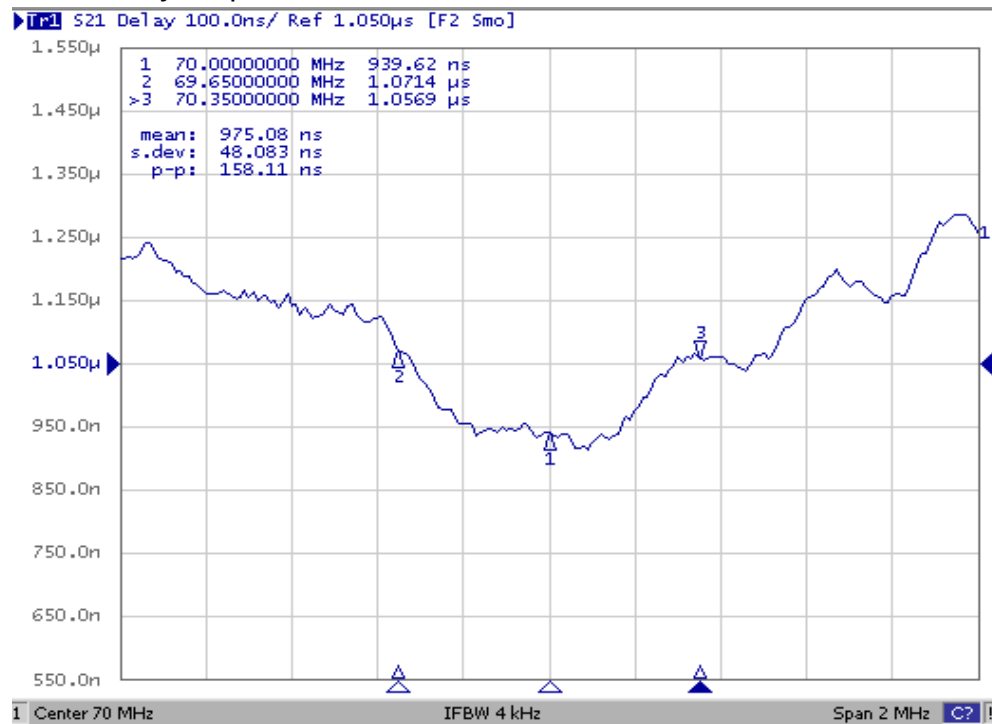
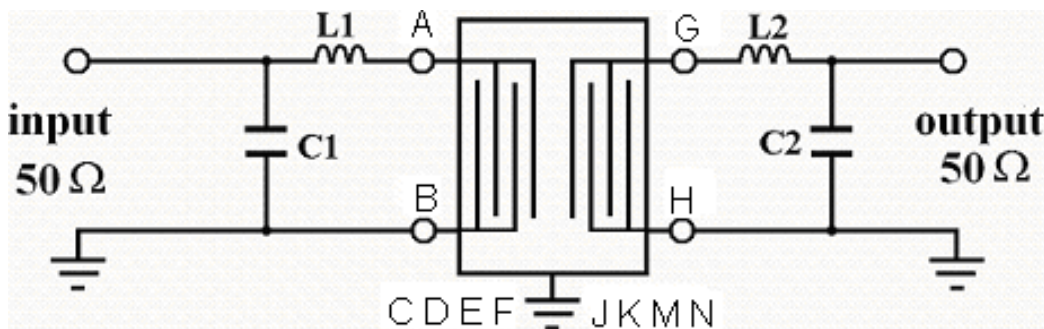


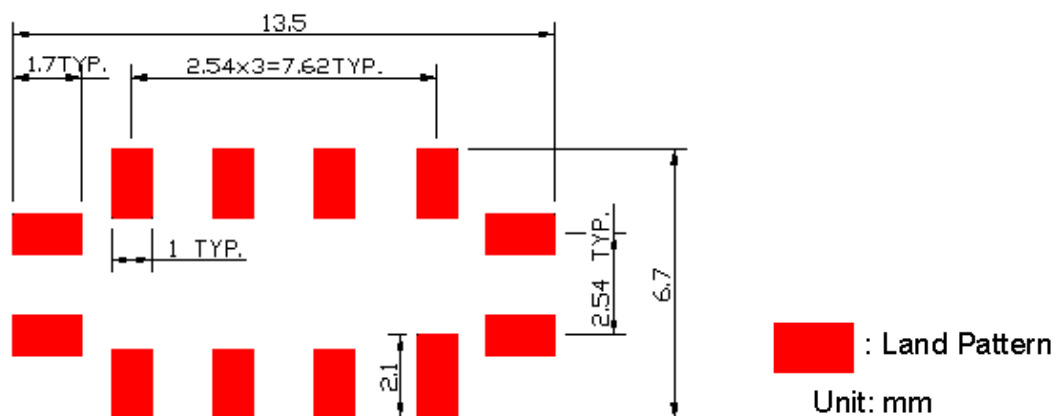
Fig3. Horizontal: 0.2MHz/Div Vertical: 100ns/Div

D. MATCHING CIRCUIT:

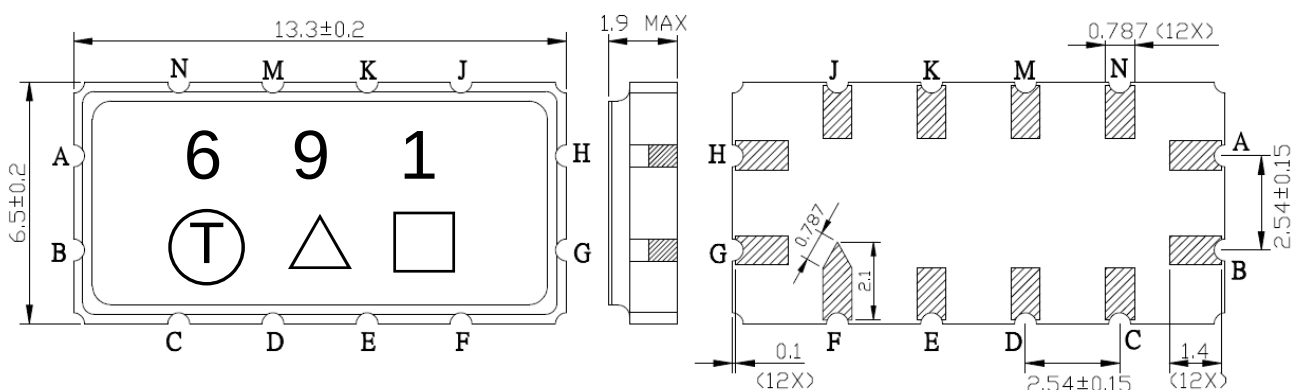


$L1 = 330\sim 480\text{ nH}$, $C1 = 82\text{ pF}$ $L2 = 330\sim 480\text{ nH}$, $C2 = 82\text{ pF}$
 $Z_{in}=50\text{ohm}$ $Z_{out}=50\text{ohm}$

E. PCB FOOTPRINT:



F. OUTLINE DRAWING:



Pin A –RF input

Pin B –RF input ground

Pin G –RF output

Pin H –RF output ground

Pin C, D, E, F, J, K, M, N - Ground

△ : Product / Year Code

□ : Week Code (Follow the table from planner each year)

Unit : mm

Product / Year Code- 4year cycle

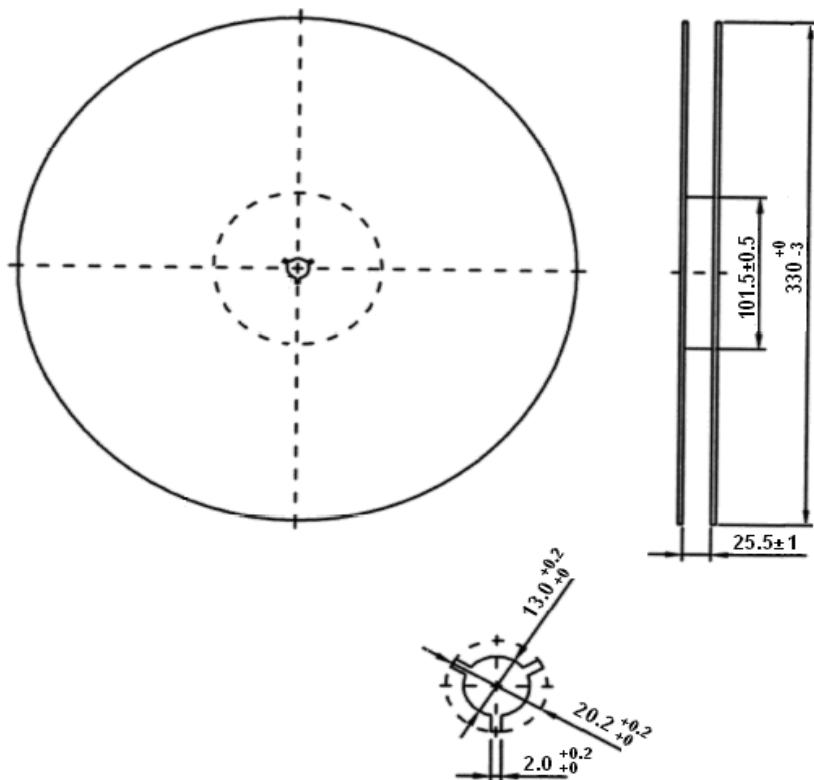
Year	2021 2025	2022 2026	2023 2027	2024 2028
Product Code	B	b	<u>B</u>	<u>b</u>

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

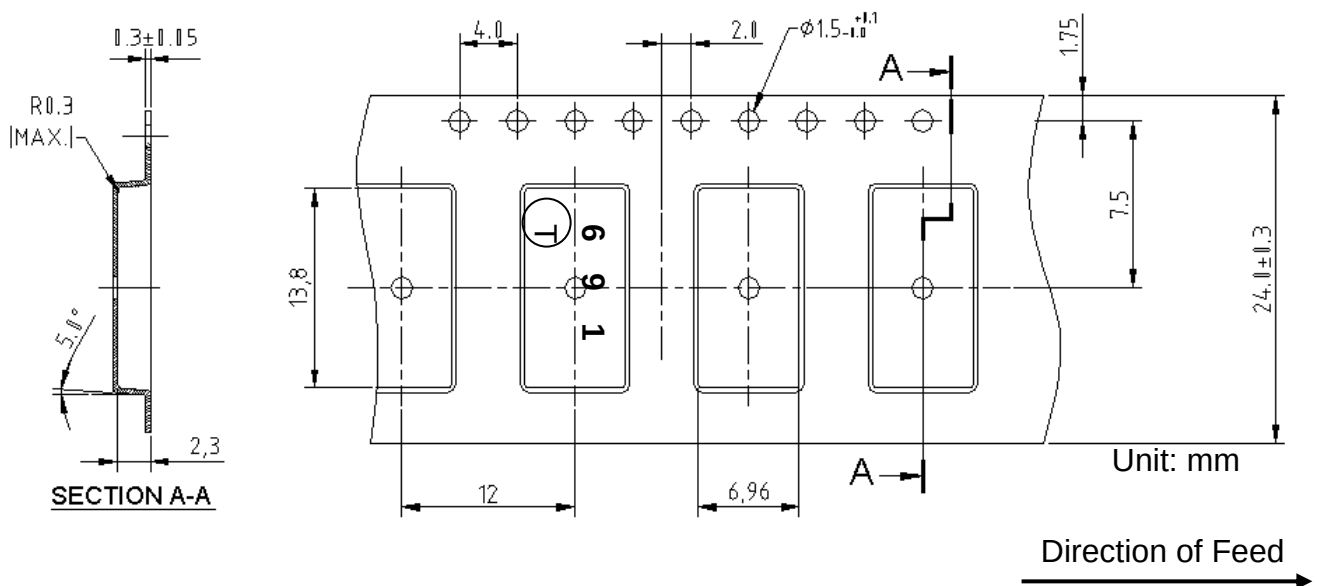
G. PACKING:

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



Unit: mm

2. TAPE DIMENSION



Unit: mm

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.

