



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: tstsales@mail.taisaw.com Web: www.taisaw.com

Product Specifications Approval Sheet

Product Description: 71 MHz 0.25MHz BW SMD 13.3 x 6.5 mm SAW IF Filter

TST Parts No.: TB0630A

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.

IF SAW Filter 71 MHz 0.25MHz BW SMD 13.3 x 6.5 mm

MODEL NO.: TB0630A

Rev No.5.0

A. MAXIMUM RATING:

1. Operating temperature range: -40°C to 85°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)



Electrostatic Sensitive Device

B. CHARACTERISTICS :

Item	Unit	Min.	Typ.	Max.
Center frequency, F_c	MHz	-	71	-
Insertion Loss, IL	dB	-	7.2	8.0
1dB Passband width	kHz	250	330	-
Amplitude Ripple F _c +/-125kHz	P-P dB	-	0.9	2.0
Group delay at F _c	usec	1.9	2.34	2.4
Group delay ripple F _c +/-125kHz	nsec	-	550	1500
Relative Attenuation				
F _c +/-300kHz ~ F _c +/-500kHz	dB	15	18	-
F _c +/-500kHz ~ F _c +/-700kHz	dB	30	34	-
F _c +/-700kHz ~ F _c +/-3MHz	dB	35	39	-
F _c +/-800kHz	dB	41	46	-
F _c +/-3MHz ~ F _c +/-35MHz	dB	43	50	-
Temperature Coefficient	ppm/°C ²	-0.036		
Source Impedance (Balanced)	Ohm			
Load Impedance (Balanced)	Ohm			

Note: The Insertion loss has included loss of balun

C. FREQUENCY CHARACTERISTICS :

1. S21 Response(Span 5MHz)

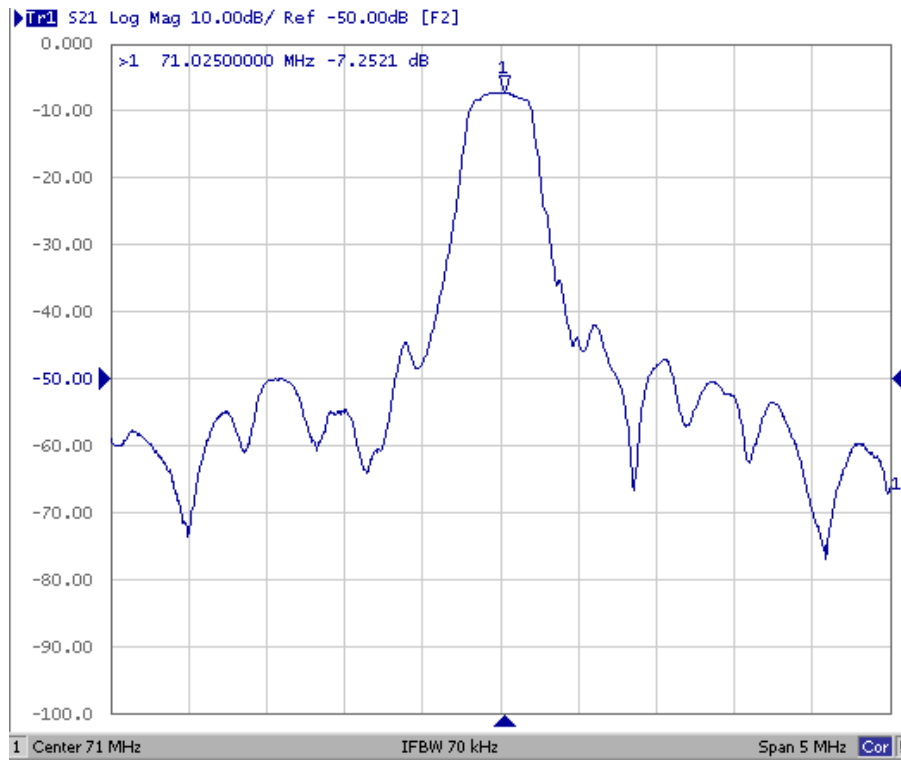


Fig1. Horizontal: 0.5MHz/Div Vertical: 10dB/Div

2. S21 Response(Span 1MHz)

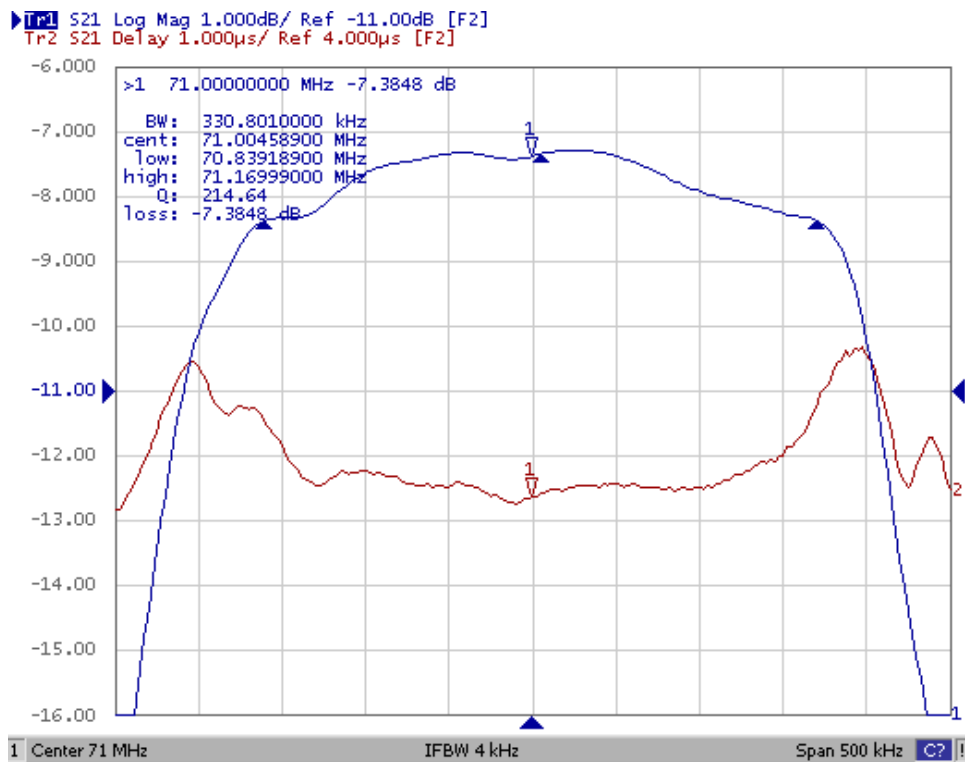
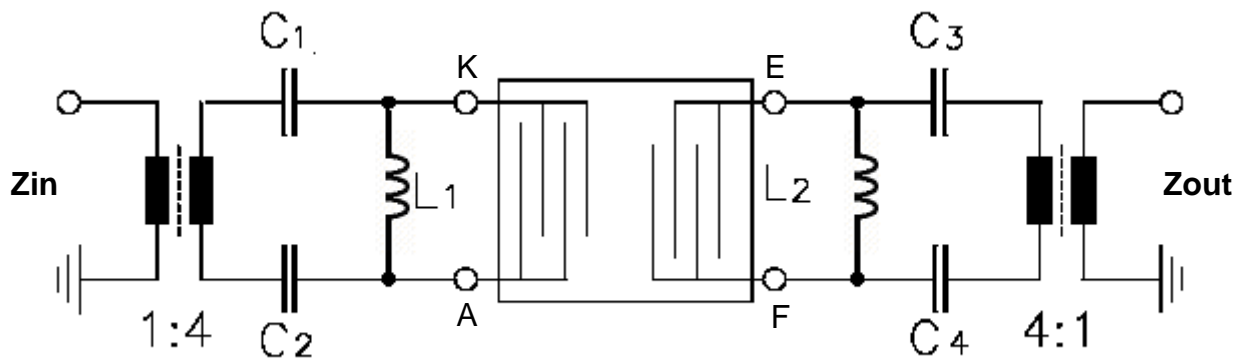
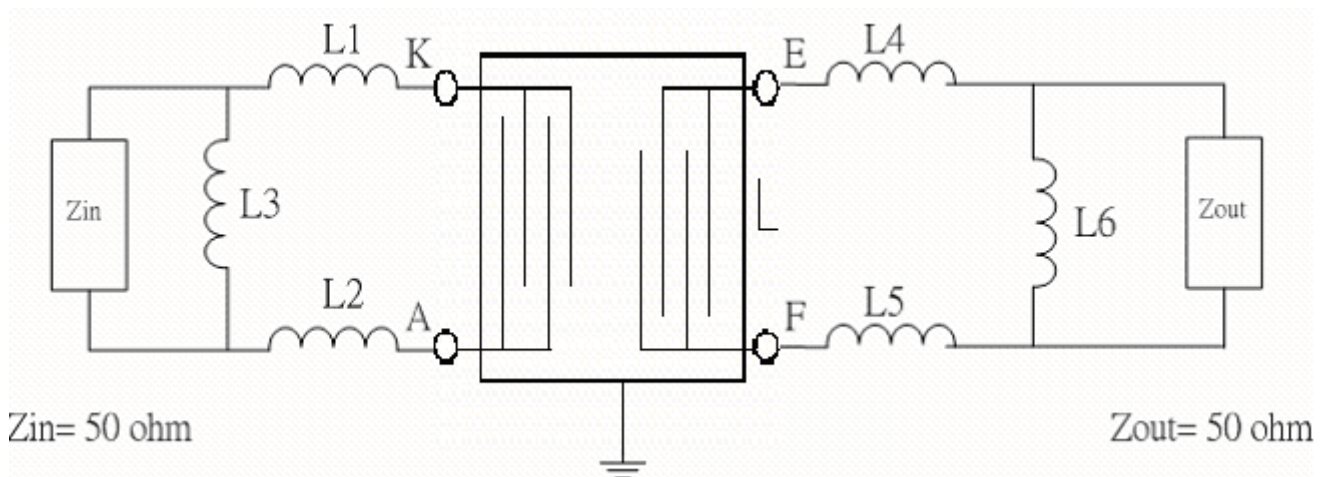


Fig2. Horizontal: 0.05MHz/Div; Vertical: 1dB/Div,
Vertical: 1uS/Div

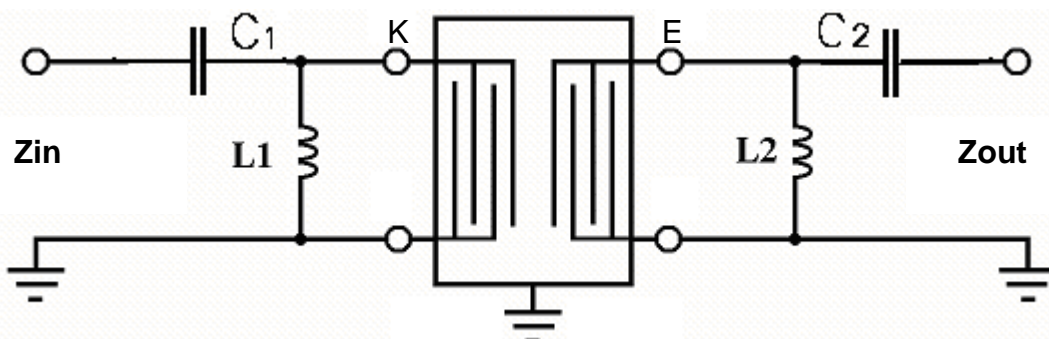
D. MEASUREMENT CIRCUIT:



$L1 = 297\text{nH}$ $C1=C2=9\text{pF}$ $L2=306\text{nH}$ $C3=C4=8\text{pF}$
 $Z_{in}=Z_{out}=50\text{ohm}$

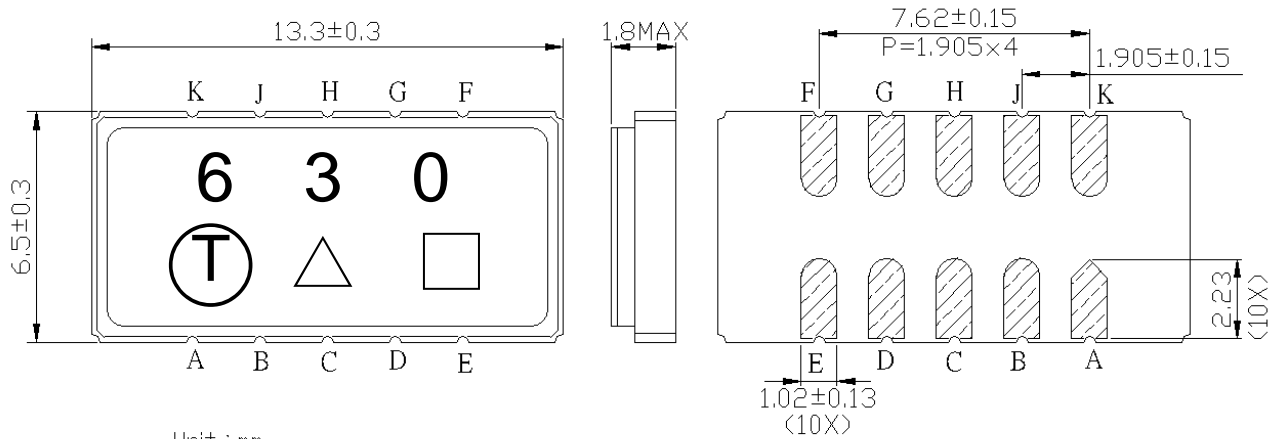


$L1=L2=165\text{nH}$ $L3=68\text{pF}$ $L4=L5=165\text{nH}$ $L6=82\text{pF}$



$L1 = 220\text{nH}$ $C1= 9\text{pF}$ $L2=220\text{nH}$ $C2=9\text{pF}$
 $Z_{in}=Z_{out}=50\text{ohm}$

E. OUTLINE DRAWING:



Unit : mm

Not Specified Tolerance : ± 0.15 mm

Pin configuration

Pin K –RF input

Pin A –RF balance input or to be ground

Pin E –RF output

Pin F –RF balance output or to be ground

Pin B,C,D,G,H,I - Ground

□ : Week Code

△ : Product / Year Code

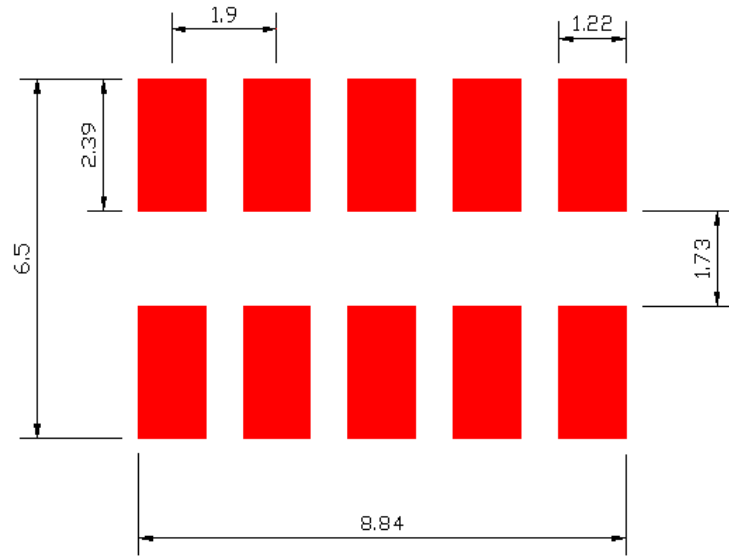
△ : Product / Year Code - 4year cycle

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

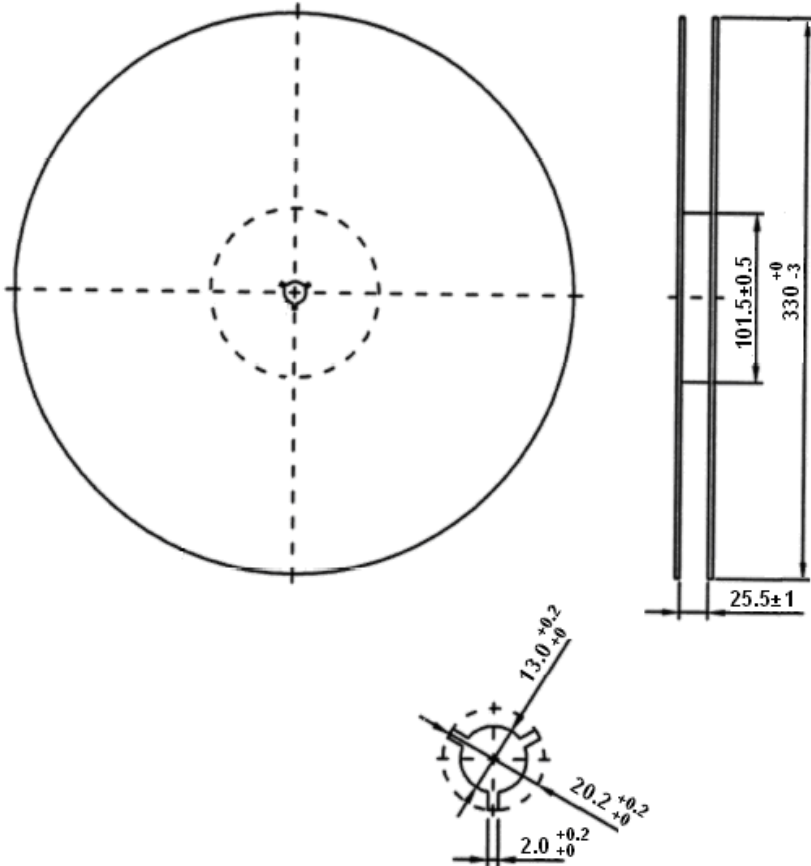
F. PCB FOOTPRINT:



G. PACKING:

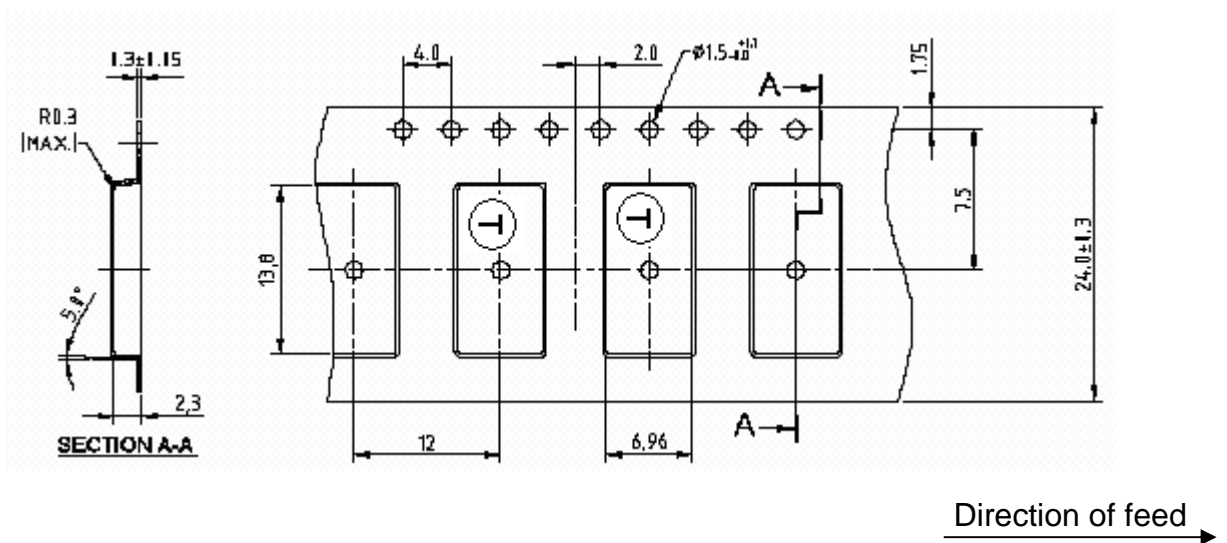
1. REEL DIMENSION

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



Unit: mm

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.

