



# 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](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

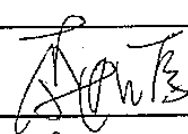
## Product Specifications Approval Sheet

Product Name: 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: \_\_\_\_\_ Kazuma Lee 

Approval by: \_\_\_\_\_ Bob Chau 

Date: \_\_\_\_\_ 05 / 14 / 2013

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, Taiwan, R.O.C.

TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: [tstsales3@mail.taisaw.com](mailto:tstsales3@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

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

MODEL NO.: TB0630A

Rev No.4

## 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

RoHS Compliant  
Lead free  
Lead-free soldering

Electrostatic Sensitive Device

## B. Characteristics :

Item	Unit	Min.	Typ.	Max.
Center frequency, <b>F<sub>c</sub></b>	MHz	-	71	-
Insertion Loss, <b>IL</b>	dB	-	7.2	8.0
1dB Passband width	kHz	250	330	-
Amplitude Ripple F <sub>c</sub> +/-125kHz	P-P dB	-	0.9	2.0
Group delay at F <sub>c</sub>	usec	1.9	2.34	2.4
Group delay ripple F <sub>c</sub> +/-125kHz	nsec	-	550	1500
Relative Attenuation				
F <sub>c</sub> +/-300kHz ~ F <sub>c</sub> +/-500kHz	dB	15	18	-
F <sub>c</sub> +/-500kHz ~ F <sub>c</sub> +/-700kHz	dB	30	34	-
F <sub>c</sub> +/-700kHz ~ F <sub>c</sub> +/-3MHz	dB	35	39	-
F <sub>c</sub> +/-800kHz	dB	41	46	-
F <sub>c</sub> +/-3MHz ~ F <sub>c</sub> +/-35MHz	dB	43	50	-
Temperature Coefficient	ppm/°C <sup>2</sup>	-0.036		
Source Impedance (Balanced)	Ohm	200		
Load Impedance (Balanced)	Ohm	200		

**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)

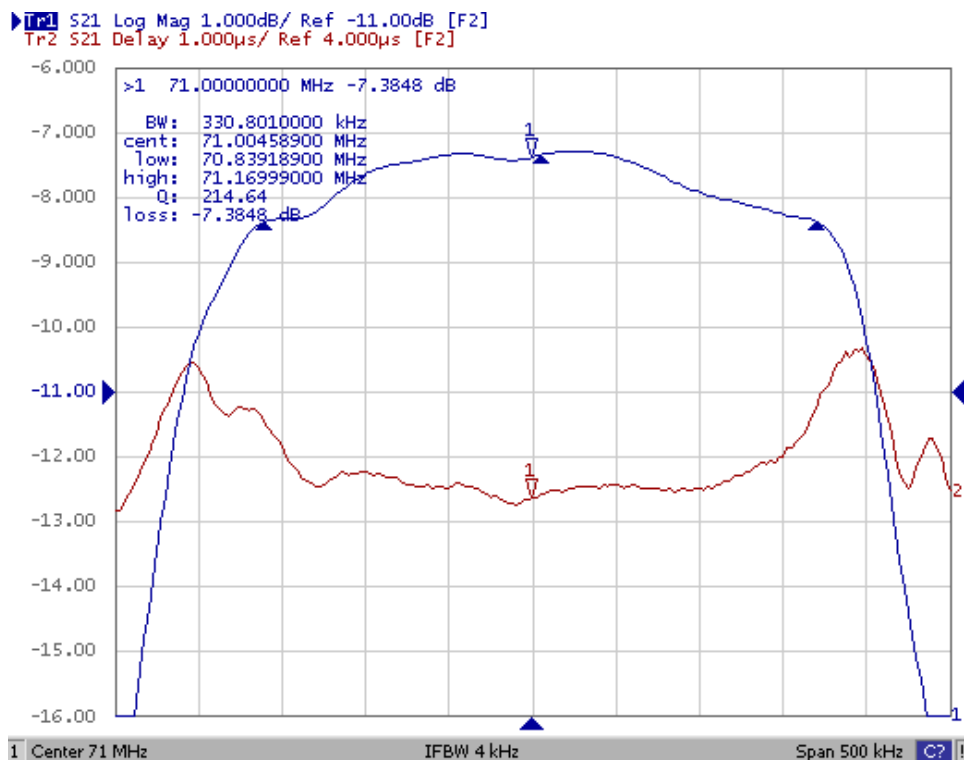
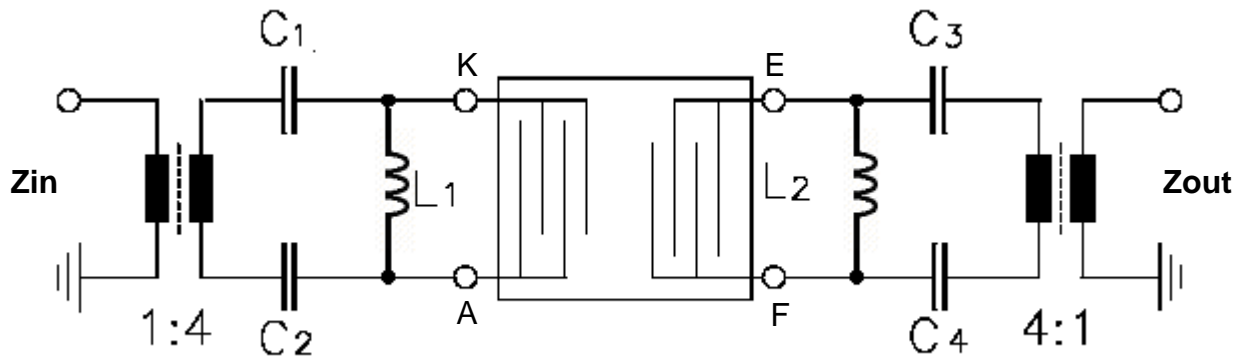
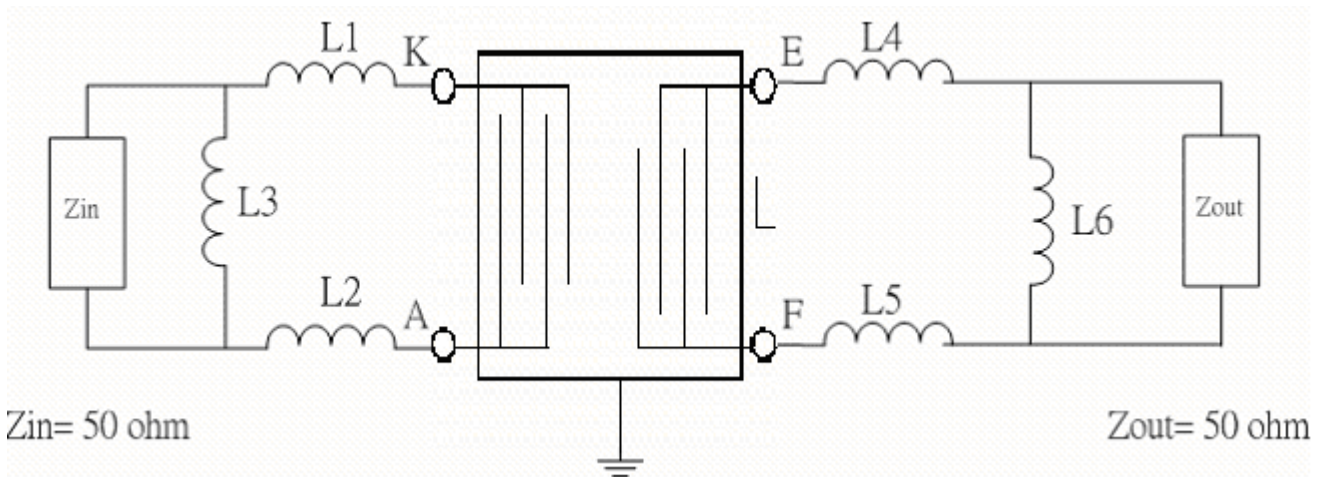


Fig2. Horizontal: 0.05MHz/Div; Vertical: 1dB/Div,  
Vertical: 1uS/Div

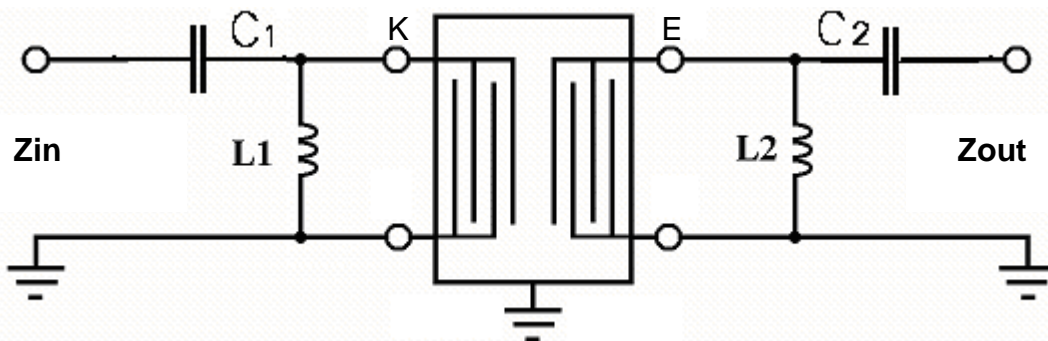
**D. Measurement Circuit:**



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

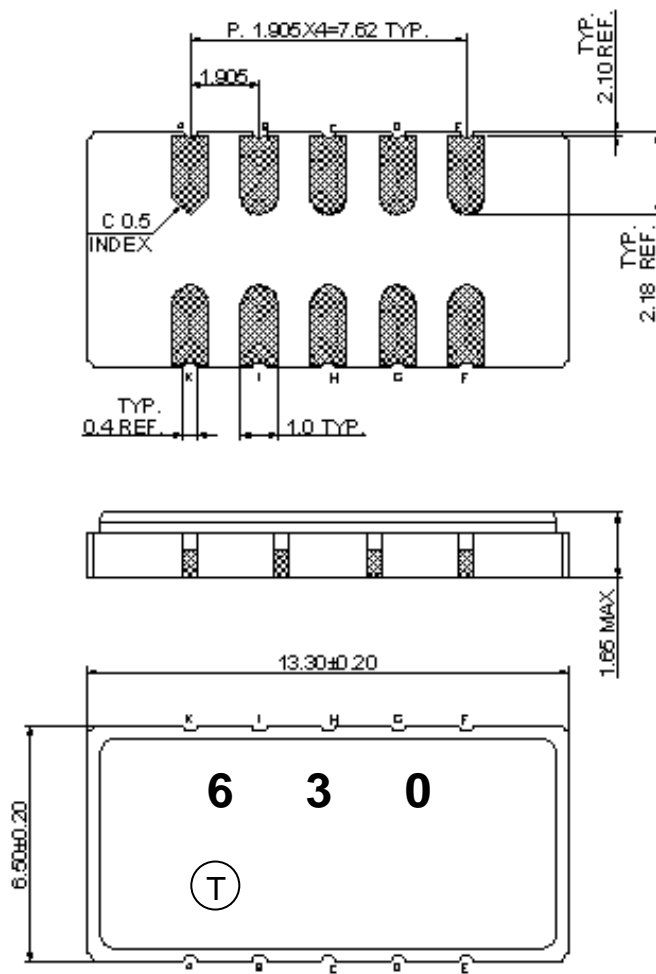


$L1=L2=165\text{nH}$     $L3=68\text{pF}$     $L4=L5=165\text{nH}$     $L6=82\text{pF}$   
 $Z_{in}= 50 \text{ ohm}$     $Z_{out}= 50 \text{ ohm}$



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

### E. Outline Drawing:



### 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

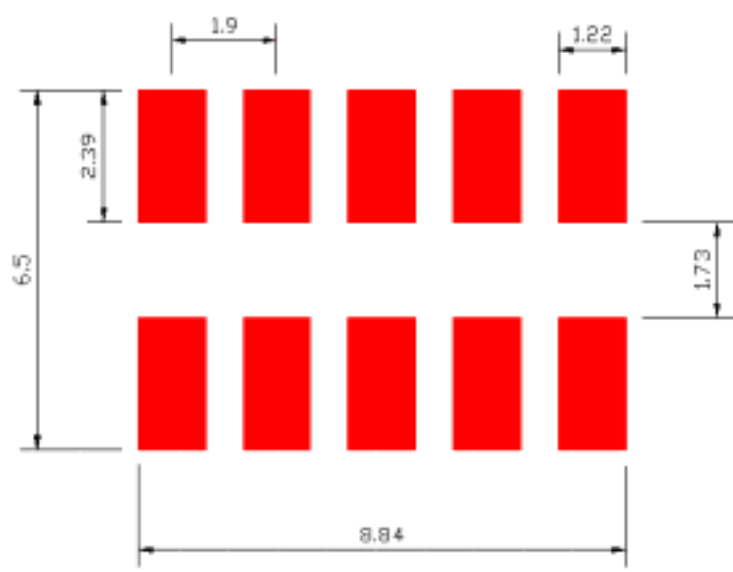
: Product / Year Code

Year	2009 2013	2010 2014	2011 2015	2012 2016
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

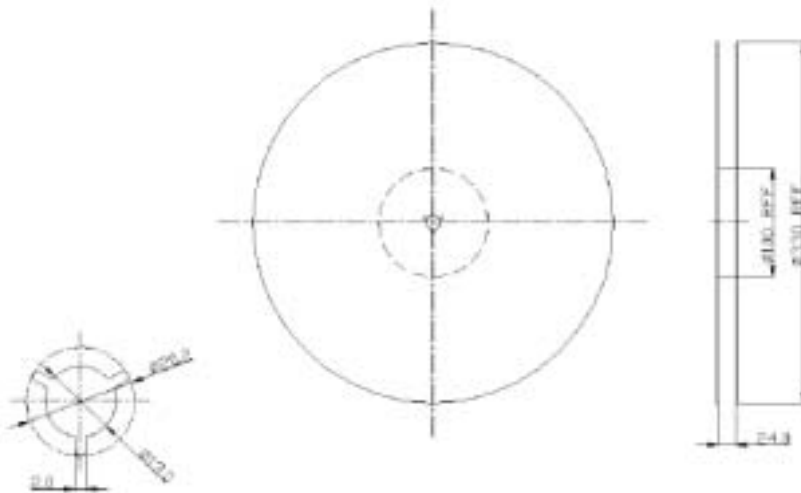
### F. PCB Footprint:



### G. PACKING:

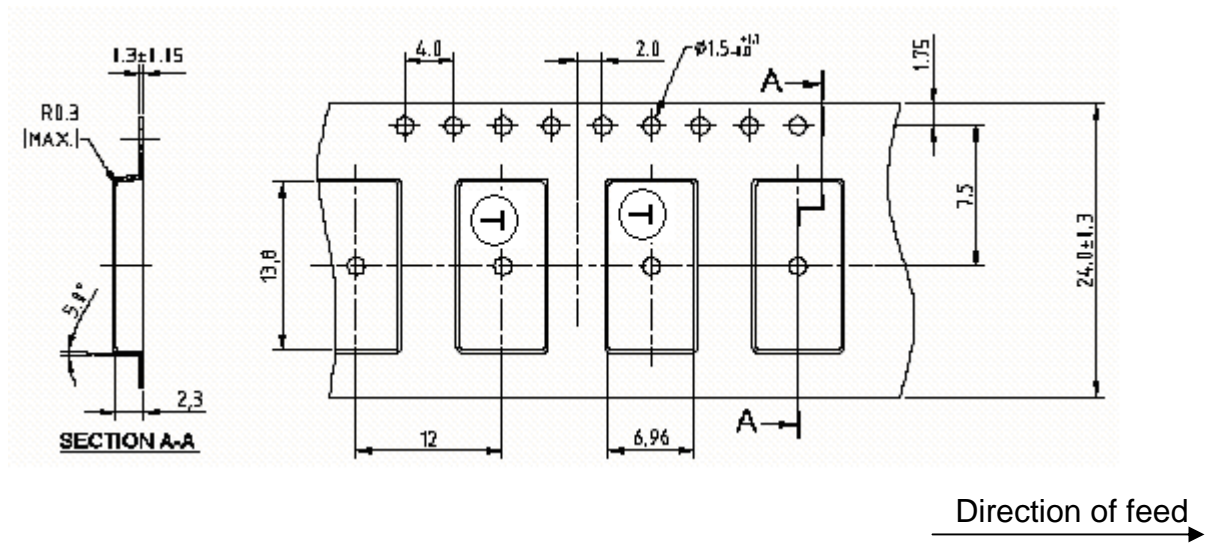
#### 1. REEL DIMENSION

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



Unit: mm

## 2. TAPE DIMENSION



## H. RECOMMENDED REFLOW PROFILE:

