



# 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: 873 MHz 14MHz BW SMD 13.3 x 6.5 mm SAW IF Filter

TST Parts No.: TB1009A

Customer Parts No.: \_\_\_\_\_

Customer signature required
Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: \_\_\_\_\_ Kazuma Lee

Approval by: \_\_\_\_\_ Francis Chen

Date: \_\_\_\_\_ 06 / 14 / 2012

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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## IF SAW Filter 873MHz SMD 13.3X6.5mm

MODEL NO.: TB1009A

REV. NO.2

### A. MAXIMUM RATING:

1. Operating temperature range: -25°C to 55°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 :

1. Ambient Temperature: 25 °C

Characteristics		Value		
		Min.	Typ.	Max.
Center frequency	FC MHz	872.5	873	873.5
Maximum Insertion loss	I.L. dB	-	26.0	30.0
1.0dB Band Width	MHz	14.0	14.9	-
40dB Band Width	MHz		18.1	19.0
Passband Ripple at $F_C \pm 7.0$ MHz	dB	-	0.8	1.2
Attenuation (Reference level from minimum Insertion loss )				
863.5MHz	dB	40	50	-
882.5MHz	dB	40	43	-
Single Input Impedance	Ohm	-	50	-
Single Output Impedance	Ohm	-	50	-
Temperature Coefficient	ppm/°C <sup>2</sup>	-	-0.036	-

### C. Frequency Responses:

#### 1. Wide band response

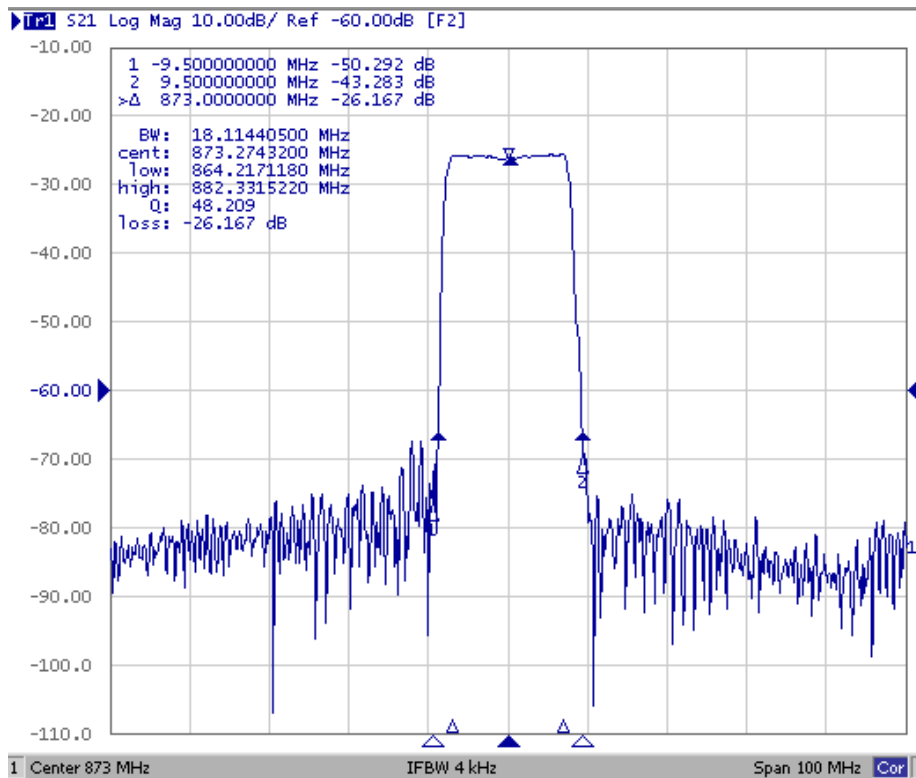


Fig1. Horizontal: 10MHz/Div Vertical: 10dB/Div

#### 2. Pass band & Group Delay response

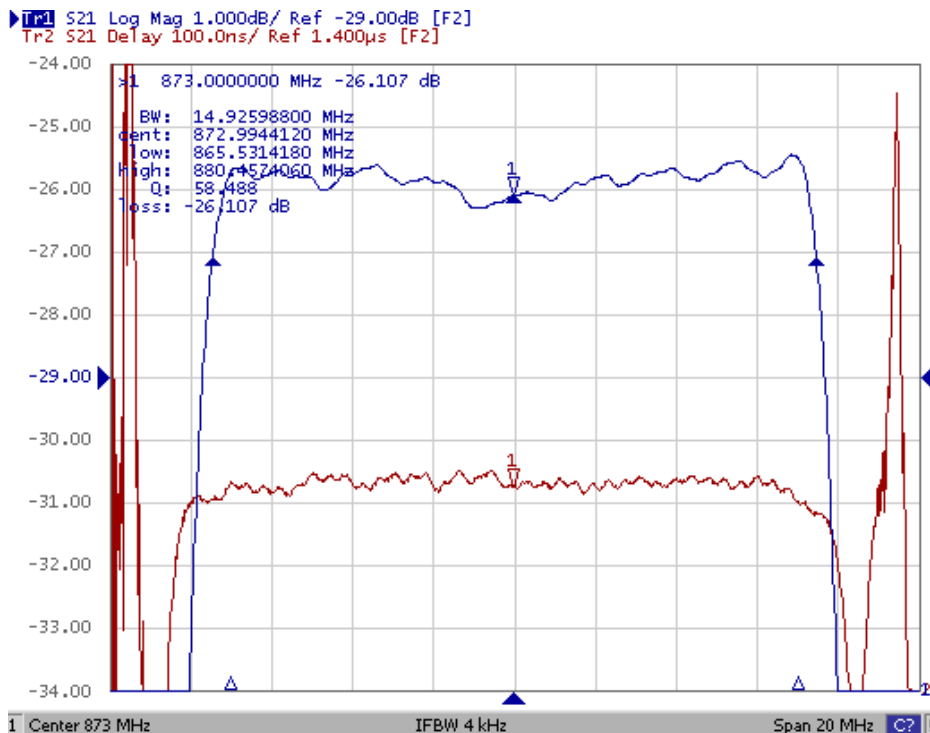
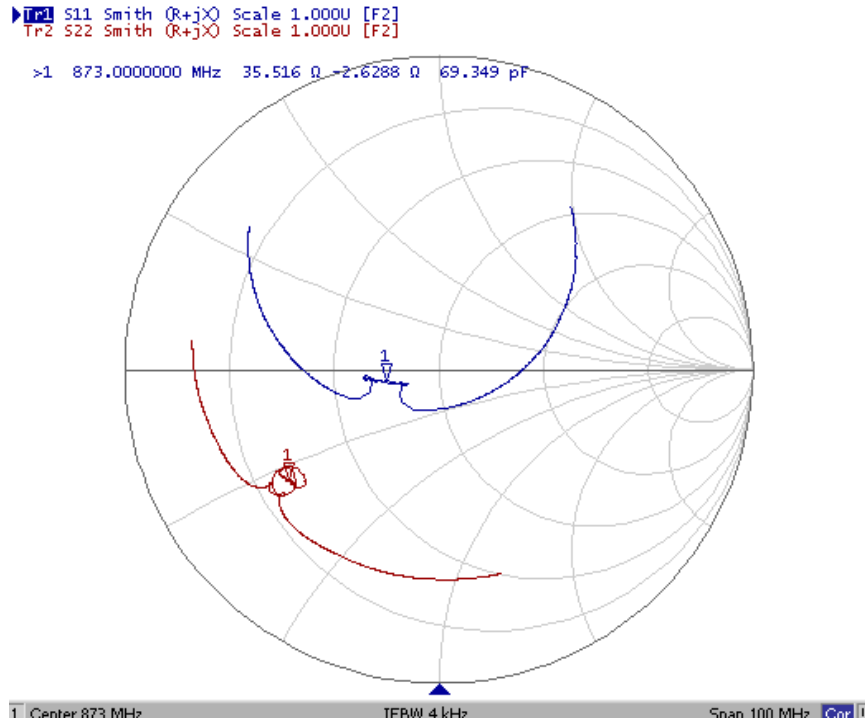


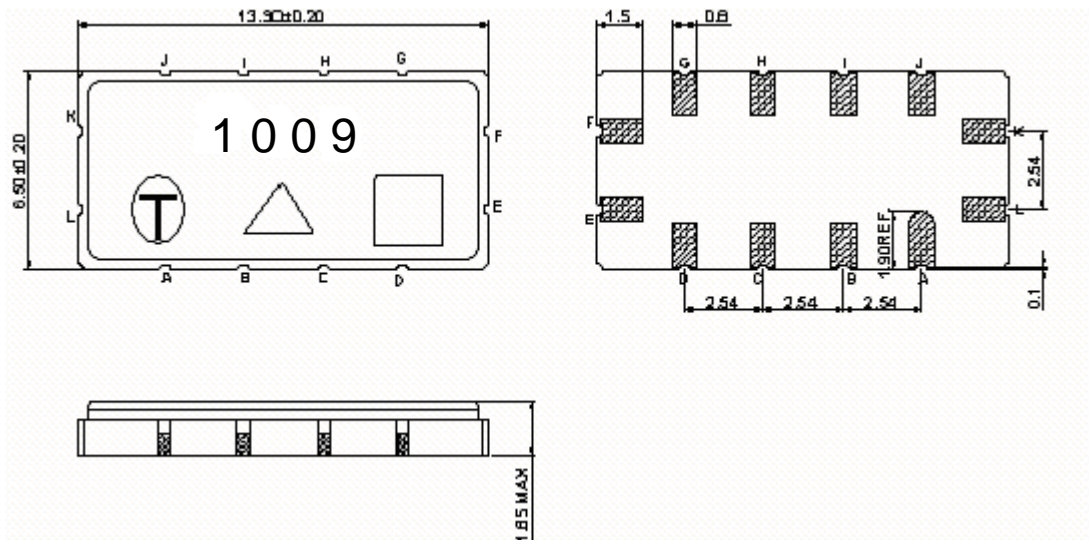
Fig2. Horizontal: 2MHz/Div Vertical: 1dB/Div

Vertical: 100ns/Div

### 3. Smith Chart



### D. Outline Drawing:



#K : Input

#L : Input Ground

#E : Output

#F : Output Ground

#A,#B,#C,#D,#G,#H,#I,#J : Ground

□ : Week Code

Unit: mm

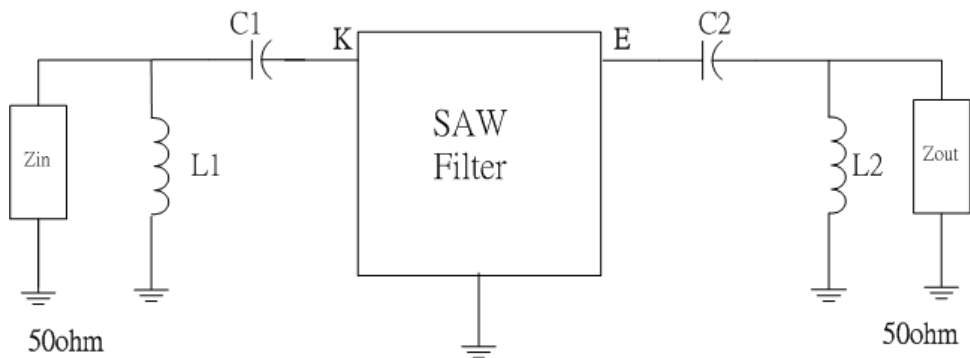
△ : Product / Year Code

Year	2009 2013	2010 2014	2011 2015	2012 2016
Product Code	B	b	<u>B</u>	<u>b</u>

Week Code Table

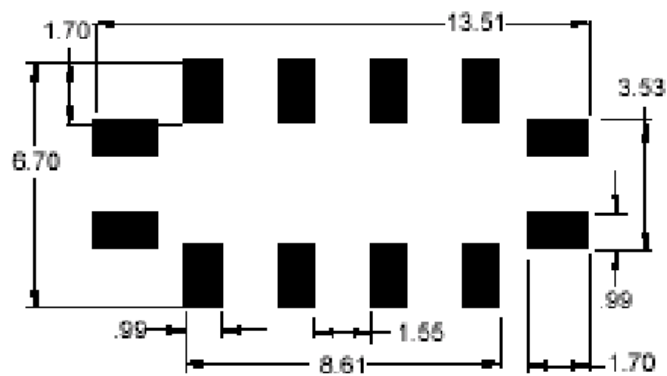
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

E. Measurement Circuit: Matching Circuit:



**Zin=Zout=50ohm**  
**L1= 3nH L2=5.6nH C1=3.9pF C2=5.6pF**

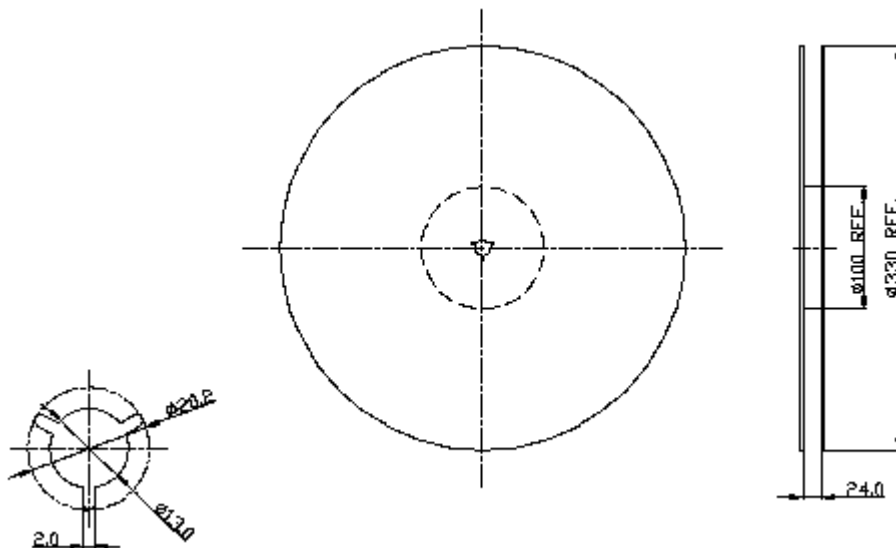
## F. PCB Footprint



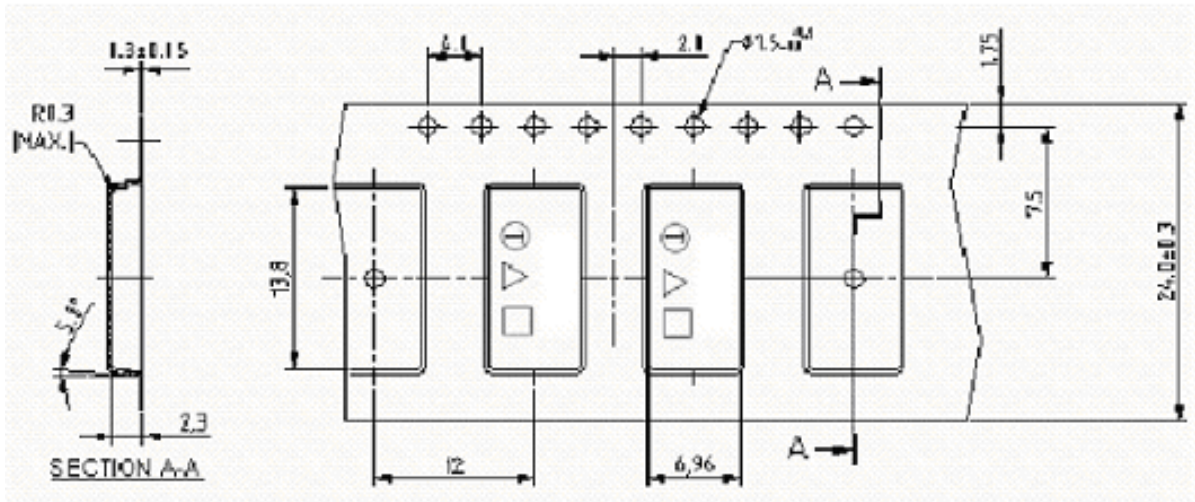
Unit: mm

## G. PACKING:

1. REEL DIMENSION: (Reel count: 7"=500)



## 2. TAPE DIMENSION



## H. RECOMMENDED REFLOW PROFILE:

