



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

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## Product Specifications Approval Sheet

Product Description: Low-Loss 70MHz IF SAW Filter (BW=16 MHz)

TST Parts No.: TB0214A

Customer Part No.: \_\_\_\_\_

Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: \_\_\_\_\_ Marco Huang *Marco Huang*

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

Date: \_\_\_\_\_ 10/01/2015

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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Low-Loss 70 MHz IF SAW Filter (SMD 13.3x6.5 mm)

Model No.: TB0214A

Rev. No.:2.0

## A. Maximum Rating:

RoHS Compliant  
Lead free  
Lead-free soldering

1. Input Power Level: +20 dB<sub>m</sub>
2. Operating Temperature: -10°C to +70°C
3. Storage Temperature: -40°C to +85°C

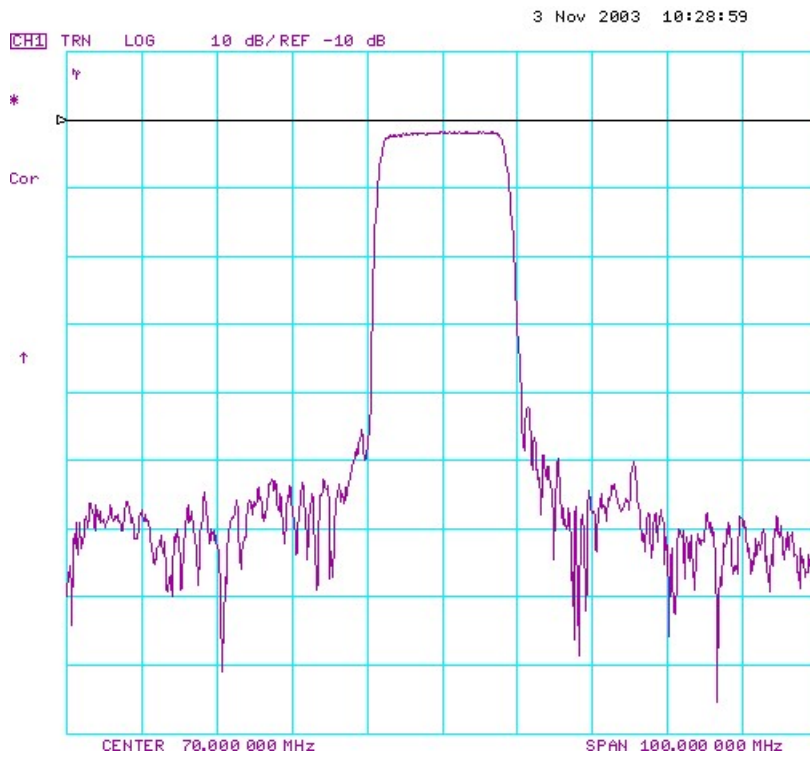
**Electrostatic Sensitive Device**

## B. Electrical Characteristics:

Parameters	Unit	Min.	Typical	Max.
Center frequency, <b>F<sub>c</sub></b>	MHz	69.8	70	70.2
Insertion Loss, <b>IL</b>	dB	-	12.2	13.2
1 dB Bandwidth	MHz	15.2	15.38	-
3 dB Bandwidth	MHz	16.0	16.41	-
40 dB Bandwidth	MHz	-	20.17	21.0
Relative Attenuation:				
10 to 59.5 MHz	dB	40	43	-
82 to 140 MHz	dB	40	45	-
Amplitude ripple within $F_c \pm 7$ MHz	dB	-	0.55	1.0
Group Delay ripple within $F_c \pm 7$ MHz	nsec	-	40	80
Substrate Material	-	-	YZ-LN	-
Temperature Coefficient of frequency	ppm/ °C	-	-94	-

## C. Frequency Characteristics:

### (1) Frequency Response

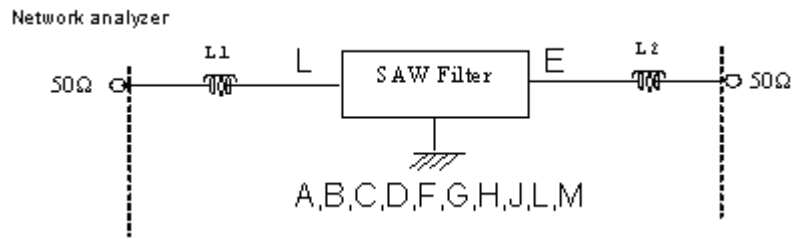


### (2) Passband response and Group Delay Variation



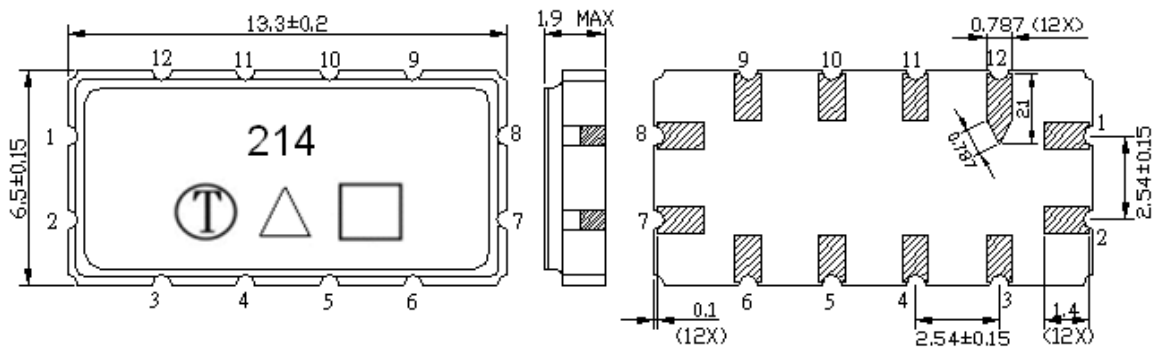
**D. Measurement Circuit:**

Source and load impedance: 50 Ω



Input: L1=220 nH, Q>40  
Output: L2=220 nH, Q>40

**E. Outline Drawing:**



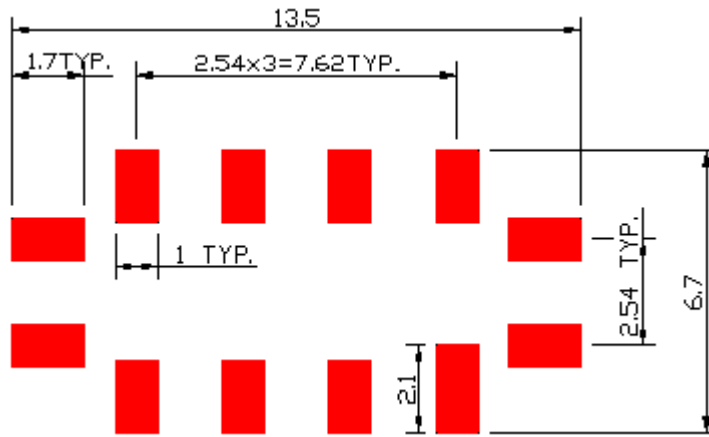
- Pin L: RF Input
- Pin E: RF Output
- Pin M: Input Ground
- Pin F: Output Ground
- Pin A, B, C, D, G, H, J, K : To be Ground
- : Date code

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

△: Year code

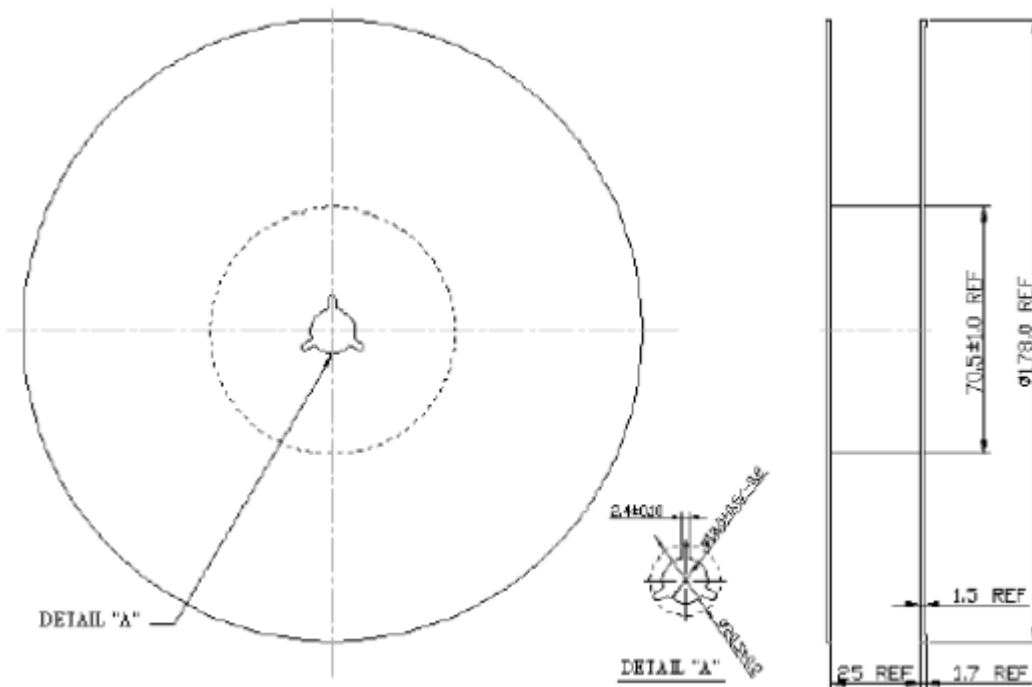
Year	2013 2009	2014 2010	2015 2011	2016 2012
Product Code	B	b	<u>B</u>	<u>b</u>

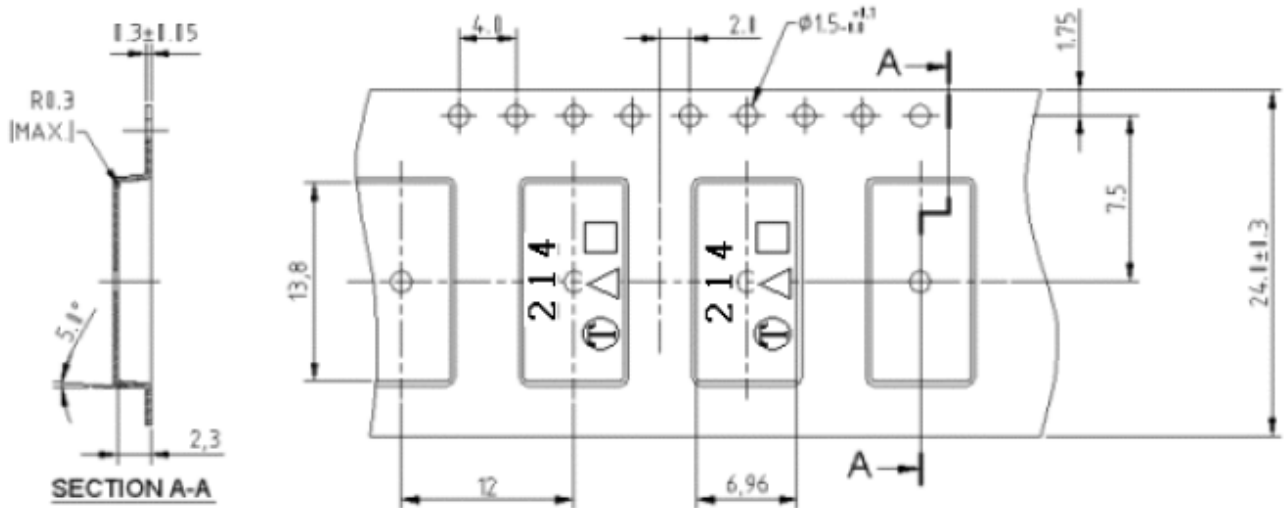
**F. PCB Footprint:**



**G. Packing:**

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





### 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.

