



# TAI-SAW TECHNOLOGY CO., LTD.

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

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## Approval Sheet For Product Specification

Issued Date:

Product Name: 48MHz IF SAW Filter (BW=9 MHz)

TST Parts No.: TB0411A

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

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

Checked by: \_\_\_\_\_ Andy Yu

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

Date: \_\_\_\_\_ 2007/05/29



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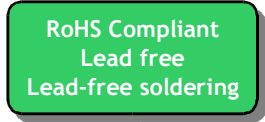
SAW Filter 48MHz (SMD 13.3×6.5 mm)

Model No.: TB0411A

Rev. No.:1.0

## A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. Operating Temperature: -40°C to +85°C
3. Storage Temperature: -40°C to +85°C

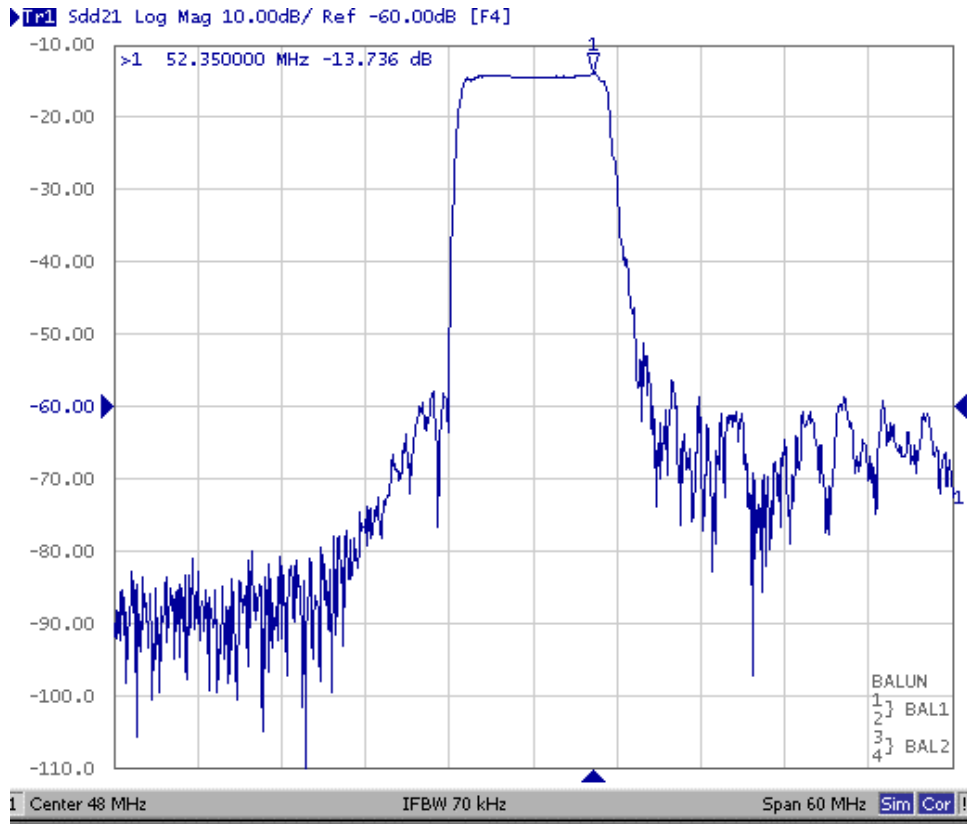


## B. Characteristics :

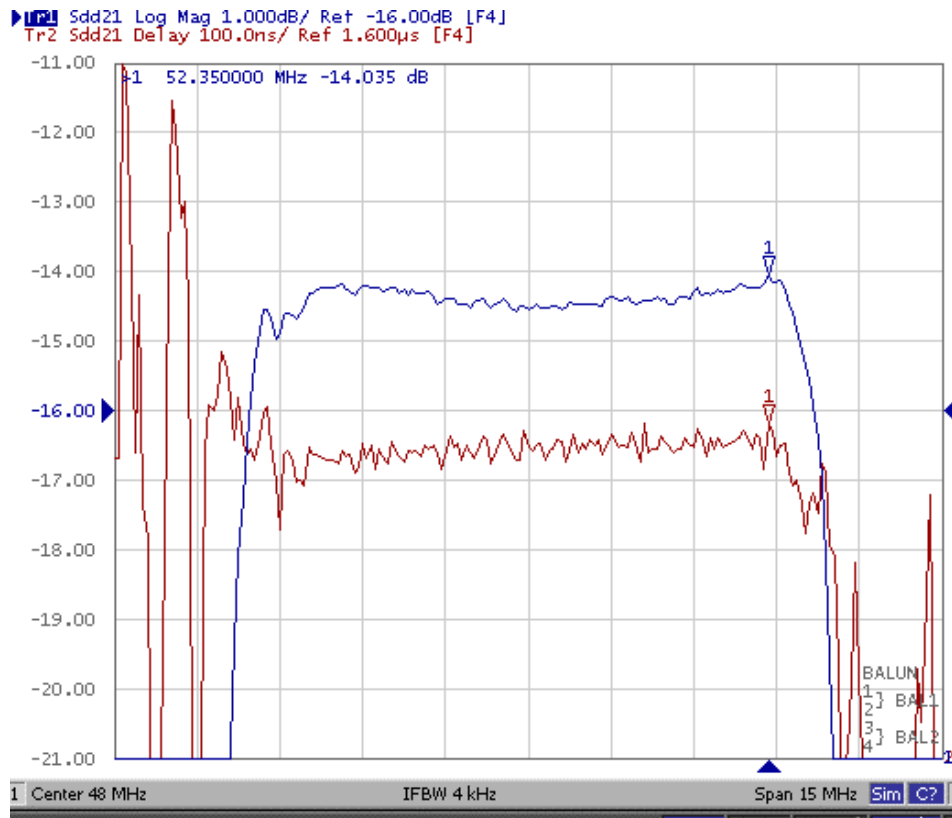
Item	Unit	Min.	Type.	Max.
Center frequency, <b>Fc</b>	MHz	-	48	-
Insertion Loss, <b>IL</b>	dB	-	13.5	16.0
1 dB Bandwidth	MHz	9	10.1	-
3 dB Bandwidth	MHz	-	10.5	-
Pass band Ripple <b>Fc±4.25MHz</b>	dB	-	0.6	1.2
Group delay Variation <b>Fc±4.5MHz</b>	nsec	-	120	220
Stopband Rejection (ref: Max IL)				
<b>Fc±5.5MHz</b>	dBc	-	5.5	-
<b>Fc±7.75MHz</b>	dBc	35	43	-
<b>Fc±10.0MHz</b>	dBc	40	53	-
<b>Fc+15.0~25.0MHz</b>	dBc	40	52	-
<b>Fc-15.0~25.0MHz</b>	dBc	40	68	-
Operating Temp Range	°C	-40	25	80
Frequency Stability	kHz	-300		300
Termination Impedance	Ohm	50(input), 2000(output)		

### C. Frequency Characteristics :

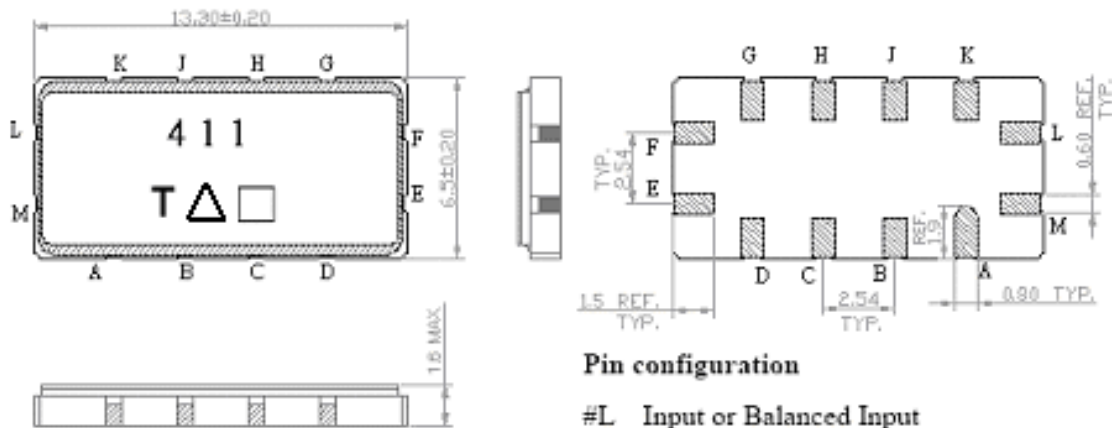
(1) wide band Response: (span 60MHz)



(2) Pass band Response: (span 15MHz)



**D. Outline Drawing:**



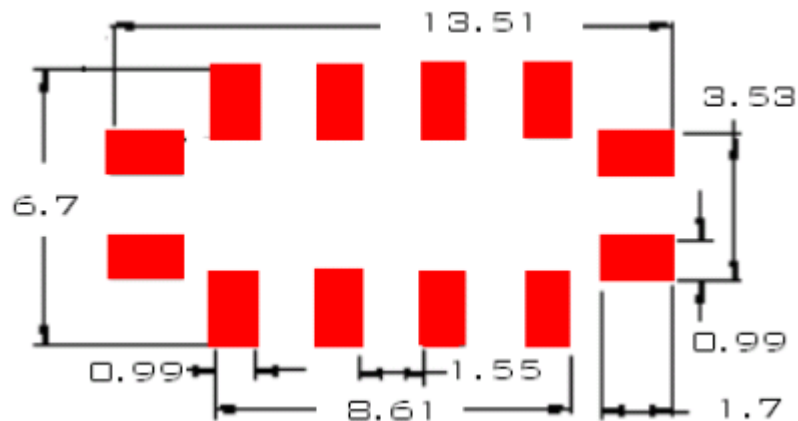
**Pin configuration**

- #L Input or Balanced Input
- #M Input ground or Balanced Input return
- #E Output or Balanced Output
- #F Output ground or Balanced Output return
- #A,B,C,D,G,H,J,K To be grounded
- Date code
- △ : Product / Year Code

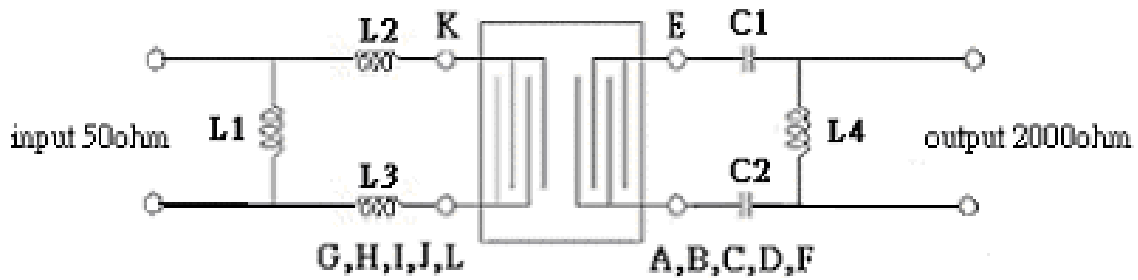
Unit mm

Year	2005 2009	2006 2010	2007 2011	2008 2012
Product Code	B	b	<u>B</u>	<u>b</u>

**E. PCB Footprint:**



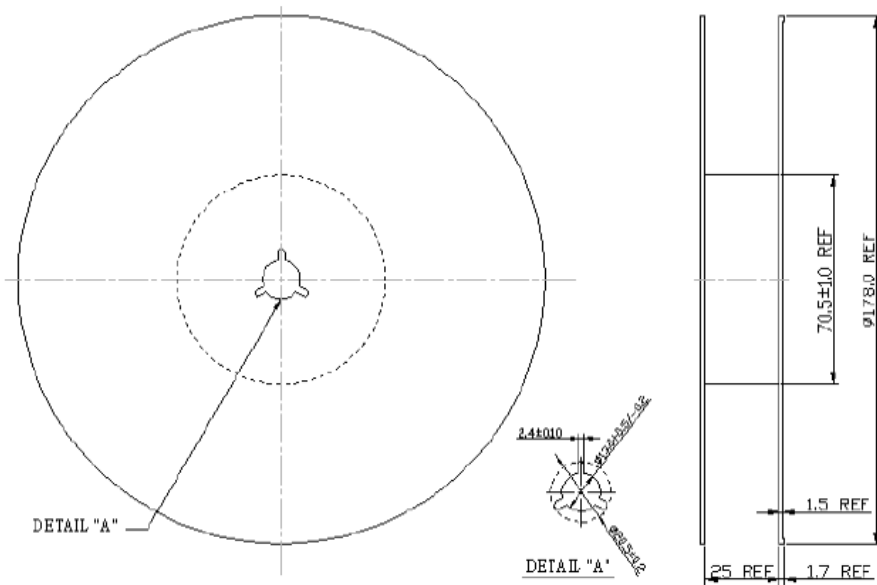
**F. Matching Circuit:**



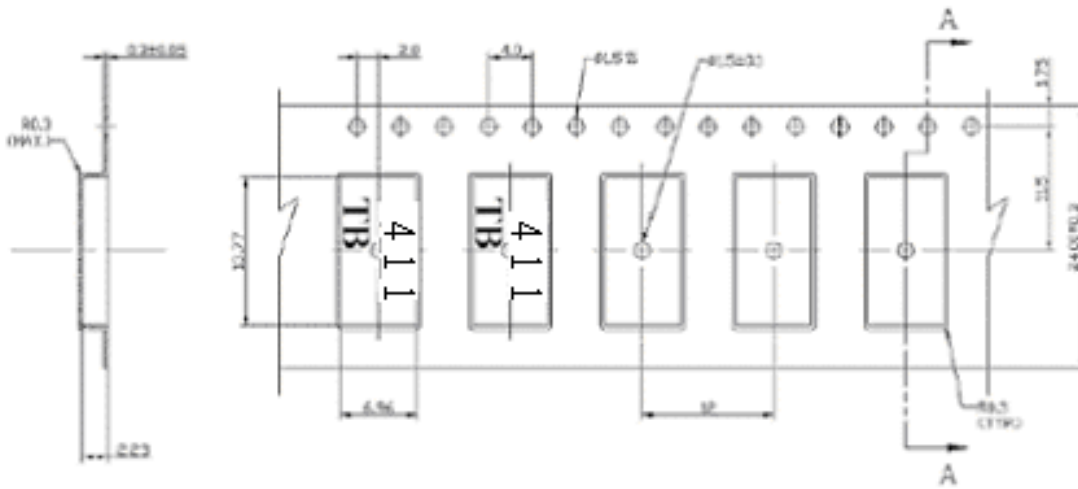
$L1=890\text{nH}$ ,  $L2=L3=47\text{nH}$ ,  $L4=970\text{nH}$ ,  $C1=C2=36\text{pF}$

**G. Packing:**

(1). REEL DIMENSION:



(2). TYPE DIMENSION:



**H. Recommended Reflow Profile:**

