

# 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: SAW Filter 261.12MHz SMD 13.3x6.5mm

TST Part No.: TB0204A

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

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

Checked by: Ricky Lee *Ricky Lee*

Approved by: Francis Chen *Francis Chen*

Date: 2009/09/11

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 261.12MHz(BW=5MHz) SMD 13.3X6.5mm

MODEL NO.: TB0204A

REV.2.0

### A. MAXIMUM RATING:

1. Operating Temperature: -30 °C ~ +85 °C
2. Storage Temperature: -40 °C ~ +85 °C
3. Input power: 10dBm

RoHS Compliant  
Lead free  
Lead-free soldering

### B. Characteristics :

Ambient Temperature: 25 °C

| Characteristics  | Value  |                    |        | Note |
|--|--------|--------------------|--------|------|
|  | Min.   | Typ.               | Max.   |      |
| Center frequency $F_C$ MHz                                 | -      | 261.12             | -      | -    |
| Minimum Insertion loss I.L. dB                             | -      | 11.5               | 12     | -    |
| Lower 1 dB Bandedge MHz                                    | -      | 258.6              | 259.2  | -    |
| Upper 1 dB Bandedge MHz                                    | 263.04 | 263.5              | -      | -    |
| Lower 15 dB Bandedge MHz                                   | 257.12 | 257.7              | -      | -    |
| Upper 15 dB Bandedge MHz                                   |        | 264.5              | 265.12 |      |
| Phase Linearity (259.2~263.04MHz)(rms) deg                 | -      | 1.8                | 4      | -    |
| Attenuation: (Reference level from minimum insertion loss) |        |                    |        | dB   |
| 1) 161.12 MHz~241.12 MHz dB                                | 43     | 48                 | -      | -    |
| 2) 241.12 MHz~253.12 MHz dB                                | 43     | 47                 | -      | -    |
| 3) 269.12 MHz~281.12 MHz dB                                | 43     | 47                 | -      | -    |
| 4) 281.12 MHz~361.12 MHz dB                                | 43     | 50                 | -      | -    |
| Substrate Material   |        | LiTaO <sub>3</sub> |        |      |

### C. Frequency Characteristics :

#### 1. S21 Response: (span : 50MHz)

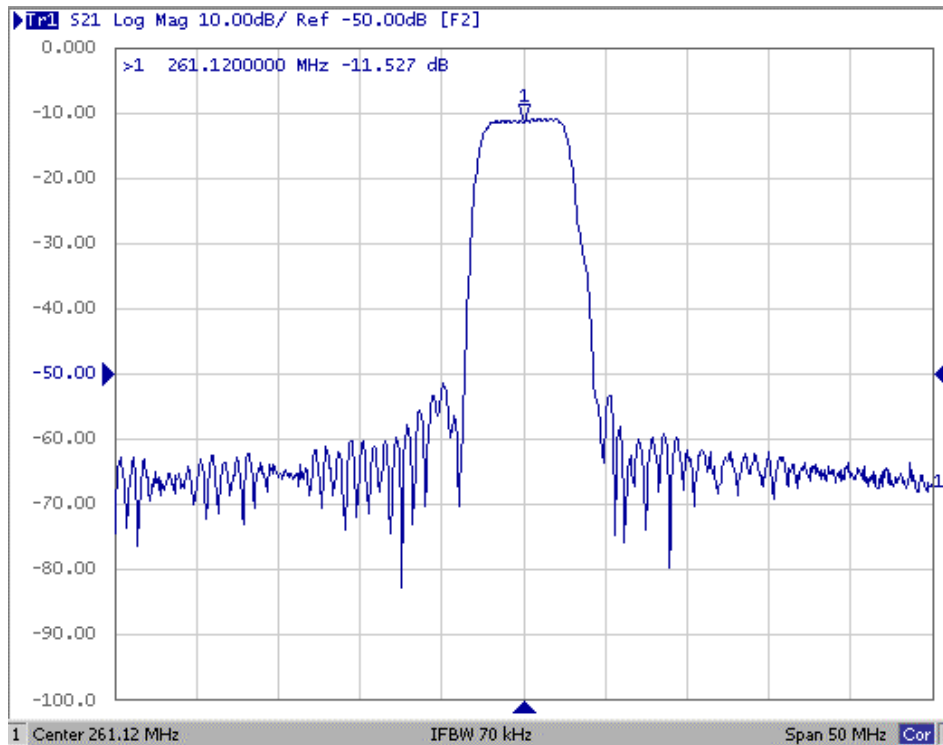


Fig1. Horizontal: 5MHz/Div Vertical: 10dB/Div

#### 2. Group-Delay Ripple: (span : 10MHz)

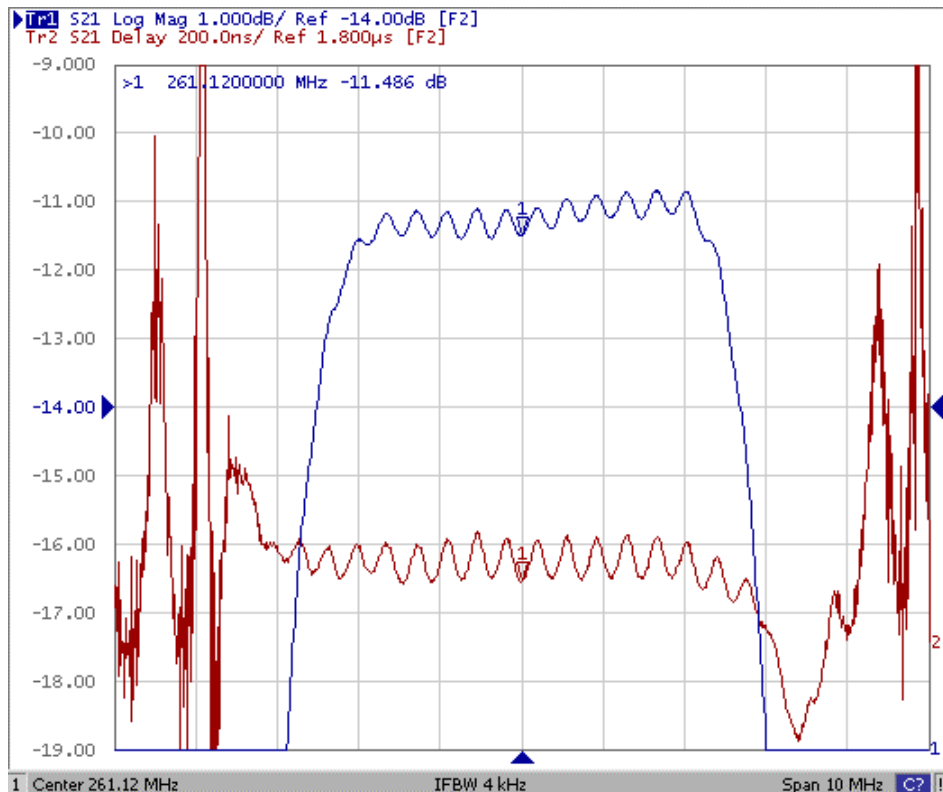
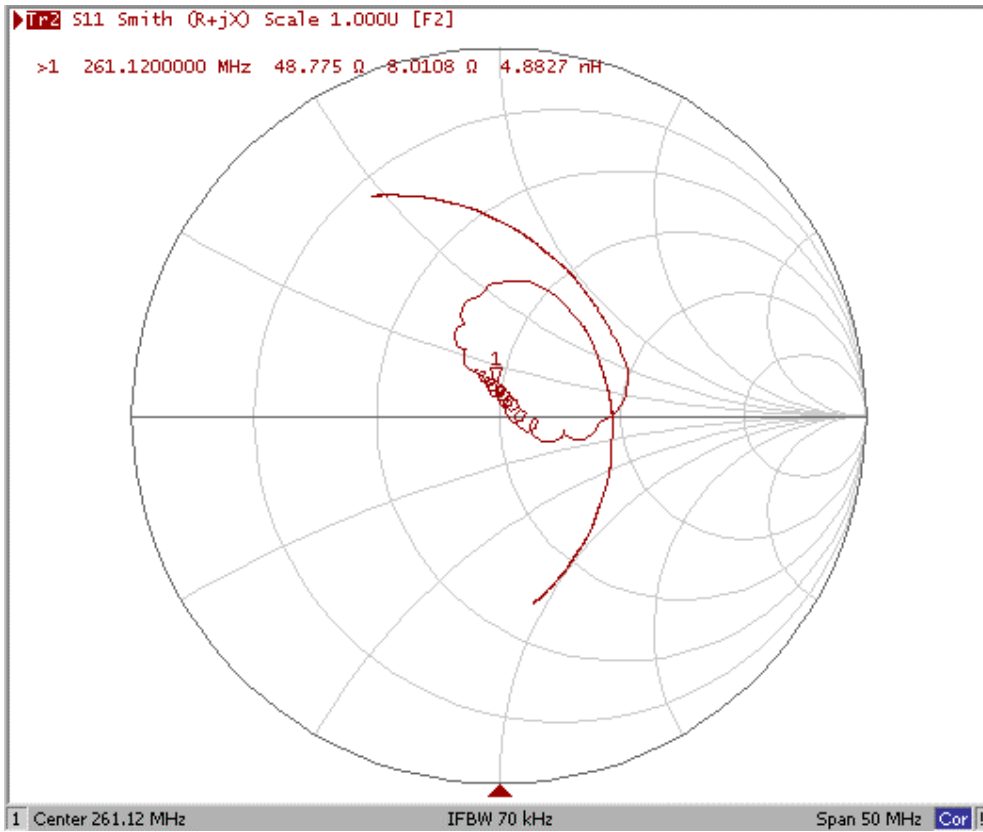
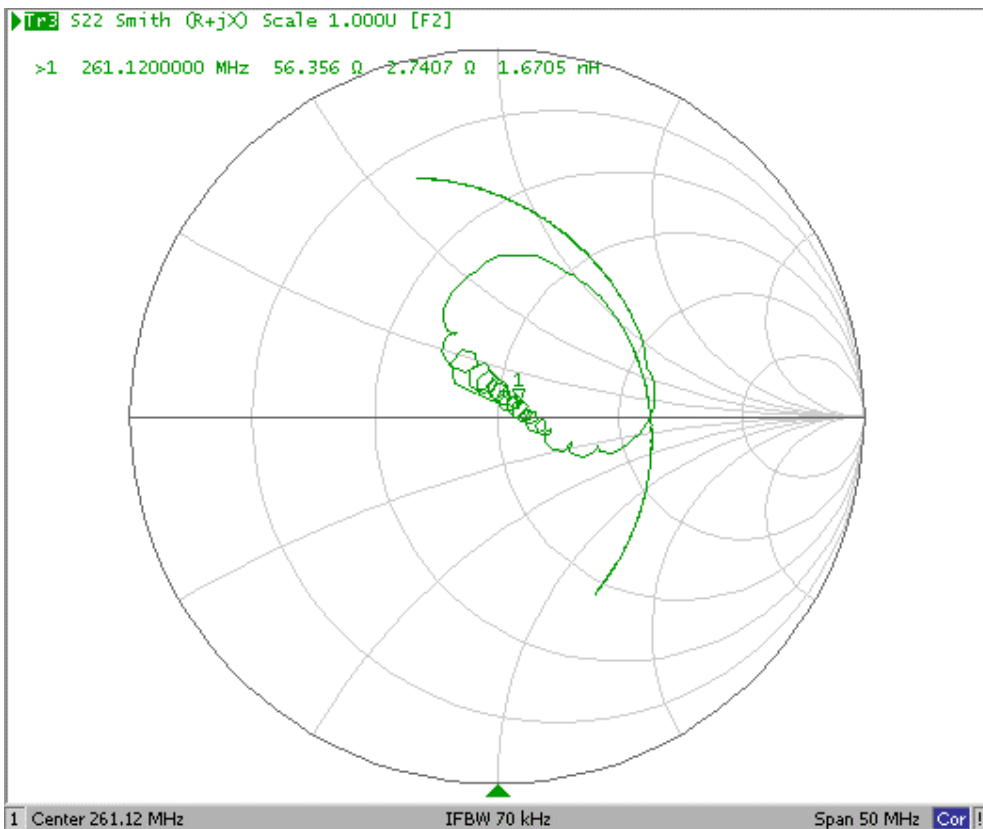


Fig2. Horizontal: 1.0MHz/Div Vertical: 200nec/Div

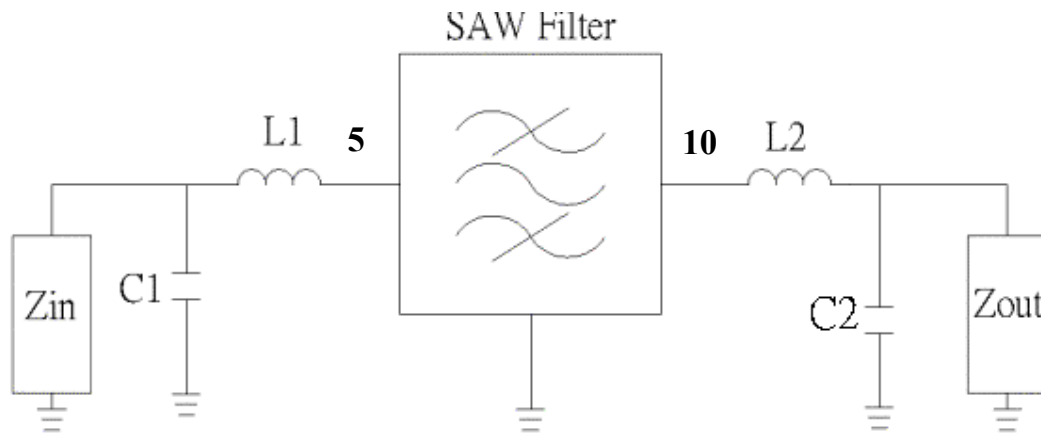
### 3. S11 Smith Chart: (span : 50MHz)



### 4. S22 Smith Chart (span : 50MHz)



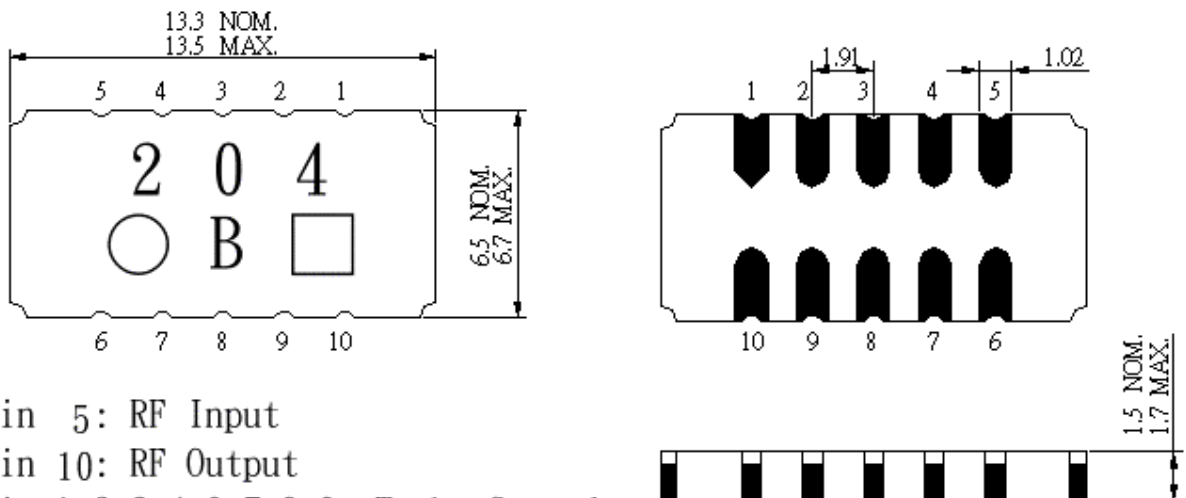
**D. Measurement Circuit:**



Zin and Zout are  $50\ \Omega$ .

$L1=8.2\ \text{nH}$ ,  $C1=36\ \text{pF}$ ,  $L2=9.4\ \text{nH}$ ,  $C2=31\ \text{pF}$

**E. Outline Drawing:**



Pin 5: RF Input

Pin 10: RF Output

Pin 1, 2, 3, 4, 6, 7, 8, 9: To be Ground

□ : Date code

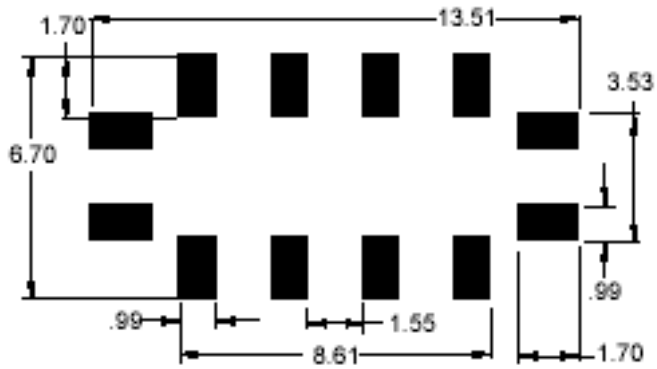
Unit: mm

□ : Week Code (W01->A,W02->B,...W27->a,...,W52->z)

Unit : mm

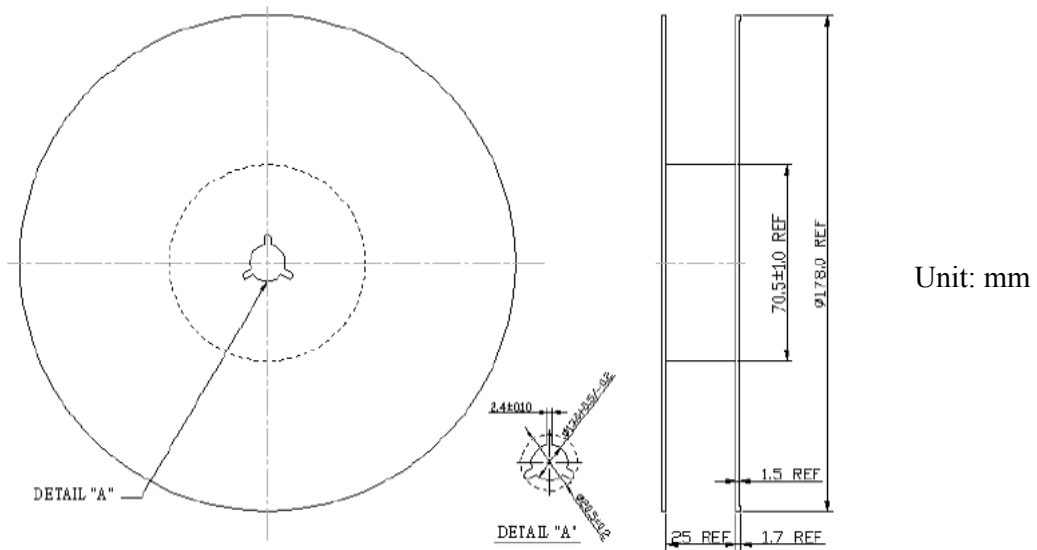
|              |              |              |              |              |
|--------------|--------------|--------------|--------------|--------------|
| Year         | 2005<br>2009 | 2006<br>2010 | 2007<br>2011 | 2008<br>2012 |
| Product Code | B            | b            | <u>B</u>     | <u>b</u>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

**F. PCB Footprint:**



**H. PACKING:**

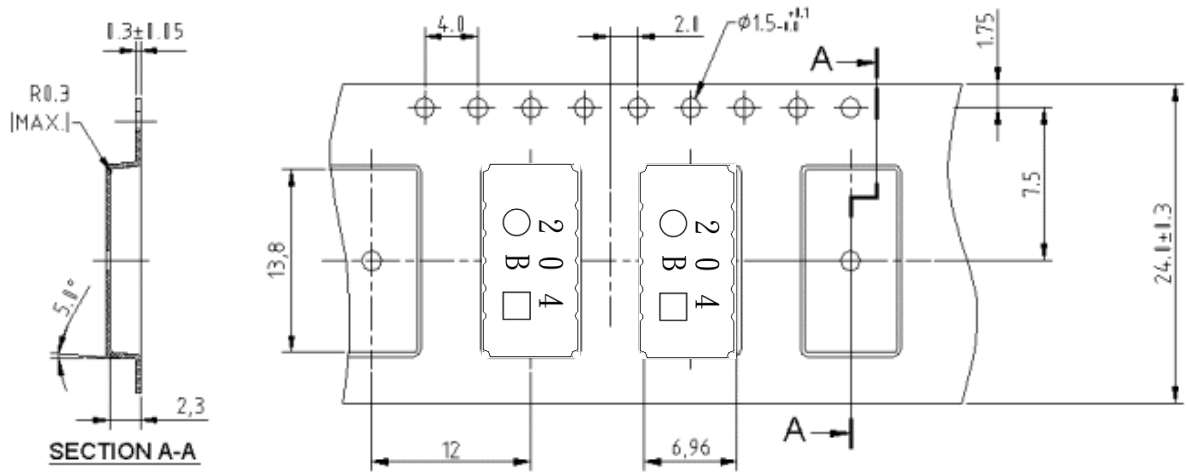
**1. REEL DIMENSION**



Unit: mm

Unit: mm

## 2. TAPE DIMENSION



Unit: mm

## I. RECOMMENDED REFLOW PROFILE\_:

